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THE INVISIBLE PRISON: PATHWAYS AND PREVENTION

Margaret F. Brinig* & Marsha Garrison**

In this Article, we propose a new strategy for curbing crime and delinquency and demonstrate the inadequacy of current reform efforts. Our analysis relies on our own, original research involving a large, multigenerational sample of unmarried fathers from a Rust Belt region of the United States, as well as the conclusions of earlier researchers.

Our own research data are unusual in that they are holistic and multigenerational: the court-based record system we utilized for data collection provided detailed information on child maltreatment, juvenile status and delinquency charges, child support, parenting time, orders of protection, and residential mobility for focal children (the oldest in the family), their siblings, half-siblings, and all parents who grew up in the relevant county. Using other data sources, we were also able to obtain reliable information about adult crime and other high-risk behaviors. Very few crime researchers have had access to data this comprehensive.

Our research findings show the incarcerative state in action. Close to one-third (31.7%) of sample fathers had been incarcerated, at least once, as adults, and almost half (49.5%) of those who lived, as teenagers, in the county we investigated had at least one juvenile arrest.

Our findings support recent nonpartisan reforms, such as the federal First Step Act, that reduce mandatory sentences and place increased emphasis on substance-abuse treatment. The vast majority of offenders in our sample committed nonviolent offenses and posed no serious public-safety risk. Seventy percent of those with felony convictions also had a known history of substance abuse.

However, our data show that current reforms are incapable of significantly reducing criminal misconduct or the disproportionate impact of incarceration on black Americans and the poor. In our sample, adult paternal crime was linked to other high-risk behaviors, significantly correlated with several of the father's adverse childhood experiences (ACEs), and predicted a number of adverse outcomes in his children. Our data thus contribute to a growing body of research showing that high ACE levels—levels that are typically linked with and reinforced by poverty—significantly increase the risk of criminal behavior as well as physical and mental-health problems, educational and occupational deficits, high-risk behavior, and early death.

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To successfully reduce the costs of crime, we argue that policymakers must develop a public-health approach. We also argue that, as with virtually all successful public-health campaigns, public policy should focus on prevention programs that reduce risks and shift away from costly and largely ineffective postcrime punishment and rehabilitation strategies.

INTRODUCTION

Crime burdens victims, offenders, and the communities in which they live. The cost of crime is hard to quantify, but researchers estimate its annual price tag, in the United States alone, at no less than \$690 billion and perhaps as much as \$3.4 trillion.¹

In the United States, the losses associated with criminal victimization, offending, and incarceration are disproportionately borne by the poor, particularly those who are black.² Compared to other nations, the United States also classifies more individuals as offenders and incarcerates more offenders for longer periods of time.³ The result, some have argued, is that for “a young man . . . born in the ghetto,” life becomes an “invisible cage.”⁴

In this Article, we report data on delinquency arrests and felony convictions in a population of unmarried fathers who were defendants in paternity actions brought, in 2008 or 2010, in a Rust Belt region of the midwestern United States. The record systems we utilized to collect data gave us access, for a large portion of the sample, to reliable information about these fathers’ personal and family histories of involvement with the juvenile and criminal justice systems as well as various types of outcome data for their children. Few researchers investigating crime and delinquency have had access to comparable data spanning three generations, and many of the longitudinal research projects that have advanced our understanding of criminal-career trajectories predate recent increases in substance abuse and economic inequality.

Our research findings show that, in this struggling region, disadvantaged men and their families live within more than one invisible cage. The young fathers in our sample did, indeed, face the very real and constant threat of incarceration. Because these young men, both as juveniles and adults, frequently engaged in a range of high-risk activities—traffic violations, nonpayment of child support and other debts, intimate-partner violence, misdemeanor offending—they also lived within a cage of persistent scrutiny

1 See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-17-732, COSTS OF CRIME: EXPERTS REPORT CHALLENGES ESTIMATING COSTS AND SUGGEST IMPROVEMENTS TO BETTER INFORM POLICY DECISIONS (2017).

2 See *infra* notes 64–66 and accompanying text.

3 In 2012, the U.S. incarceration rate was 710 per 100,000, more than double the rate of ninety percent of the world’s nations and more than six times that of OECD (i.e., wealthy) nations. MELISSA S. KEARNEY ET AL., HAMILTON PROJECT, BROOKINGS INST., TEN ECONOMIC FACTS ABOUT CRIME AND INCARCERATION IN THE UNITED STATES 10 (2014), https://www.hamiltonproject.org/assets/legacy/files/downloads_and_links/v8_THP_10_CrimeFacts.pdf (summarizing literature).

4 MICHELLE ALEXANDER, THE NEW JIM CROW: MASS INCARCERATION IN THE AGE OF COLORBLINDNESS 261 (rev. ed. 2012).

from government agencies, courts, and the criminal justice system. Finally, many of these young men were trapped within a cage of substance abuse. Substance abuse was almost normative in the population we studied, and it was strongly linked with both high-risk behavior and criminal activity.

Our findings support the recent, nonpartisan call for fewer and shorter prison sentences and routine, high-quality substance-abuse treatment for addicted offenders; most offenders in our sample committed nonviolent offenses and posed no serious public-safety risk. Our findings also reveal the inadequacy of the “standard” package of criminal justice reforms as a means of curbing disproportionate incarceration. They shed new light on the disproportionate incarceration of black Americans and the poor, adding to a growing literature demonstrating that substance abuse, violence, crime, and incarceration are strongly linked to adverse childhood experience (ACE). Finally, most importantly, they demonstrate the need for a new, public-health approach to delinquency and crime that focuses on prevention instead of punishment.

I. THE ORIGIN AND IMPACT OF CRIMINAL MISBEHAVIOR

All human societies have experienced crime, and all have struggled to explain it. At bottom, the explanations fall into two camps. One group of theorists, ancient and modern, has seen crime as a rational, calculated response to situational opportunity. The other has seen crime as the result of learning, life experience, and environmental factors. Of course, many writers on crime have embraced a dualist perspective that mixes these two types of explanations. Aristotle, for example, argued both that childhood experience was an important determinant of criminal behavior and that the state might deter crime through its policing and punishment strategies.⁵

During the eighteenth-century Enlightenment era, Cesare Beccaria⁶ and Jeremy Bentham⁷ popularized a rationalist account of crime, positing both that individuals freely choose how they act based on their calculation of pain and gain.⁸ Based on humans’ tendency to engage in such calculations, Beccaria and Bentham argued that governments could deter crime through swift and certain punishments carefully calibrated to offset the rewards that could be obtained from a particular offense.

5 See ARISTOTLE, *THE NICOMACHEAN ETHICS* bk. III, ch. 5, bk. VI, ch. 13 (David Ross, trans., Oxford Univ. Press 1984).

6 See CESARE BECCARIA, *ON CRIMES AND PUNISHMENTS AND OTHER WRITINGS* 103–04 (Richard Bellamy ed., Richard Davies trans., Cambridge Univ. Press 1995) (1764).

7 See JEREMY BENTHAM, *AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION* ch. VI (Hafner Publ’g Co. 1948) (1789). See generally Gilbert Geis, *Pioneers in Criminology VII. Jeremy Bentham (1748–1832)*, 46 J. CRIM. L. CRIMINOLOGY & POLICE SCI. 159, 162 (1955).

8 BECCARIA, *supra* note 6, at 19–21, 48–49; BENTHAM, *supra* note 7, at 179 (“The value of the punishment must not be less in any case than what is sufficient to outweigh that of the profit of the offence.” (emphasis omitted) (footnotes omitted)).

The modern rationalist account of crime was developed largely by Nobel-laureate economists Gary Becker⁹ and George Stigler.¹⁰ Like Bentham and Beccaria, the economists argued that individuals weigh costs and benefits when deciding whether to commit a crime in the same way they weigh costs and benefits when deciding whether to purchase an insurance policy. To Becker, for example,

a person commits an offense if the expected utility to him exceeds the utility he could get by using his time and other resources at other activities. Some persons become “criminals,” therefore, not because their basic motivation differs from that of other persons, but because their benefits and costs differ.¹¹

Becker acknowledged that many people act under moral or ethical constraints when making such decisions but nonetheless argued that reduced risks of apprehension, conviction, and punishment will lead rational actors to increase their criminal activity.¹²

An alternate sociological, or “positivist,” theory of crime emerged not long after the rationalist account developed by Bentham and Beccaria. In the 1820s, Adolphe Quetelet, using pioneering statistical techniques and newly available crime maps, discovered that criminal behavior was strongly linked to demographic variables such as age, gender, poverty, education, and alcohol consumption.¹³ Building on Quetelet’s early work, later investigators such as Henry Mayhew used ethnographic techniques and empirical methods to establish clear links between crime and urban poverty.¹⁴ The Chicago school, which continued these investigations in the 1920s and 1930s, developed a “social ecology” approach to crime that spurred a series of influential, field-based studies of crime and delinquency during the 1920s, 1930s, and early 1940s.¹⁵ Based on these studies, members of the Chicago school posited links between urban poverty, social disorganization, and deviant, criminal behavior. They theorized that children growing up in disorganized environments are socialized into lives of delinquency and crime.¹⁶

9 See, e.g., Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

10 See, e.g., George J. Stigler, *The Optimum Enforcement of Laws*, 78 J. POL. ECON. 526, 526 (1970).

11 Becker, *supra* note 9, at 176.

12 *Id.* at 177.

13 See, e.g., Piers Beirne, *Adolphe Quetelet and the Origins of Positivist Criminology*, 92 AM. J. SOC. 1140, 1149–59 (1987).

14 See generally 1 HENRY MAYHEW, *LONDON LABOUR AND THE LONDON POOR* (Robert Douglas-Fairhurst ed., 2010) (1861).

15 See, e.g., CLIFFORD R. SHAW & HENRY D. MCKAY, *JUVENILE DELINQUENCY AND URBAN AREAS* 435 (1942) (finding a “direct relationship between conditions existing in local communities of American cities and differential rates of delinquents and criminals”); FREDERIC M. THRASHER, *THE GANG: A STUDY OF 1,313 GANGS IN CHICAGO*, at xiii (1927).

16 See, e.g., EDWIN H. SUTHERLAND, *PRINCIPLES OF CRIMINOLOGY* 76–80 (3d ed. 1939) (urging that youth become delinquent when they are socialized into an excess of values that legitimate the commission of crime and deviance).

Both the rational-actor and sociological theories of crime have influenced criminal justice policy. The sociological model spurred innovations like the juvenile court, probation, and parole.¹⁷ The rational-actor model spurred a range of new apprehension techniques and “tough-on-crime” sentencing approaches.¹⁸

In recent years, the rational-actor and sociological theories of crime have begun to converge. Some economic, rational-actor crime models now take account of individual differences in risk-taking propensity and recognize that these differences may be conditioned, at least in part, by experiences such as childhood poverty.¹⁹ Similarly, sociological theorists now typically accept the claim that crime results, at least in part, from some sort of cost-benefit analysis, but maintain that early life experience plays a major role in determining perceived benefits. Gottfredson and Hirschi, for example, have argued that a key feature of criminality is self-control, and that “control is learned, usually early in life, and once learned, is highly resistant to change.”²⁰ Similarly, social learning theory posits that crime results largely from association and example.²¹ “Strain theory” describes the benefits of crime as a means of reducing or escaping from stress,²² and “life course” scholarship contends that “[w]ithin the constraints of their world, people are planful and make choices among options that construct their life course.”²³

17 See, e.g., HOWARD ABADINSKY, *PROBATION AND PAROLE: THEORY AND PRACTICE* (11th ed. 2012) (describing history of probation and parole); I CHILDREN AND YOUTH IN AMERICA: A DOCUMENTARY HISTORY 671–757 (Robert H. Bremner ed., 1970) (describing history of juvenile court and theories of juvenile delinquency).

18 See, e.g., SITUATIONAL CRIME PREVENTION: SUCCESSFUL CASE STUDIES 9 (Ronald V. Clarke ed., 2d ed. 1997).

19 See, e.g., Murat C. Mungan & Jonathan Klick, *Identifying Criminals' Risk Preferences*, 91 IND. L.J. 792, 800 (2016); William S. Neilson & Harold Winter, *On Criminals' Risk Attitudes*, 55 ECON. LETTERS 97, 98 (1997); Valentina Nikulina et al., *The Role of Childhood Neglect and Childhood Poverty in Predicting Mental Health, Academic Achievement and Crime in Adulthood*, 48 AM. J. COMMUNITY PSYCHOL. 309, 310–11, 315 (2011). Even Becker acknowledged differing individual risk tolerances. See Becker, *supra* note 9, at 184.

20 See MICHAEL R. GOTTFREDSON & TRAVIS HIRSCHI, *A GENERAL THEORY OF CRIME* 154–68 (1990); see also TRAVIS HIRSCHI, *CAUSES OF DELINQUENCY* 10–11 (3d prtng. 1974); Travis Hirschi & Michael R. Gottfredson, *Age and the Explanation of Crime*, 89 AM. J. SOC. 552, 579–80 (1983).

21 See, e.g., ALBERT BANDURA, *AGGRESSION: A SOCIAL LEARNING ANALYSIS* 53–59 (1973); SUTHERLAND, *supra* note 16, at 4–6; Robert L. Burgess & Ronald L. Akers, *A Differential Association-Reinforcement Theory of Criminal Behavior*, 14 SOC. PROBS. 128, 132, 145–47 (1966); see also HOWARD S. BECKER, *OUTSIDERS: STUDIES IN THE SOCIOLOGY OF DEVIANCE* 79–100 (1961).

22 See, e.g., RICHARD A. CLOWARD & LLOYD E. OHLIN, *DELINQUENCY AND OPPORTUNITY: A THEORY OF DELINQUENT GANGS* 48 (1960); Robert Agnew, *Building on the Foundation of General Strain Theory: Specifying the Types of Strain Most Likely to Lead to Crime and Delinquency*, 38 J. RES. CRIME & DELINQ. 319, 319–20 (2001); Robert K. Merton, *Social Structure and Anomie*, 3 AM. SOC. REV. 672, 672 (1938).

23 Glen H. Elder, Jr., *Time, Human Agency, and Social Change: Perspectives on the Life Course*, 57 SOC. PSYCHOL. Q. 4, 6 (1994); see also ROBERT J. SAMPSON & JOHN H. LAUB, *CRIME IN THE MAKING: PATHWAYS AND TURNING POINTS THROUGH LIFE* 8–9 (1993); Robert J. Samp-

Modern longitudinal studies tend to support this hybrid view of criminality as a product of cost-benefit analysis that is strongly conditioned by early experience. These studies have uniformly found that “[b]efore anyone was convicted, at age 8–10, the future convicted juvenile delinquents differed significantly from the nondelinquents in many respects.”²⁴ Across nations and time periods, delinquency “risk factors include[] hyperactivity, impulsivity, and poor concentration; low school achievement; poor parental supervision; parental conflict; an antisocial parent; a young mother; large family size; low family income; and coming from a broken family.”²⁵

In longitudinal studies where family crime and delinquency information is available, family criminality (convicted parents, delinquent older siblings) is also a key predictor of both delinquency and adult crime.²⁶ For example, in the Cambridge study of inner-city London youth, where researchers had detailed information about sample children from parents, schools, psychological consultants, courts, the children themselves, and follow-up assessments over a forty-year period,

Excluding measures of antisocial child behavior, the best independent predictors of convictions up to age 32 were large family size, a convicted parent, high darning, poor housing, separation from a parent, low school achievement, and not having few friends The best explanatory predictors at age 8–10 of adult convictions between ages 21 and 40 were low school achievement, a convicted parent, separation from a parent, and large family size.²⁷

Childhood risk factors explain individual differences in delinquency and crime with a high degree of reliability. In the Cambridge study, for example, “vulnerability scores” based on five risk factors (low family income, large fam-

son & John H. Laub, *Turning Points and the Future of Life-Course Criminology: Reflections on the 1986 Criminal Careers Report*, 53 J. RES. CRIME & DELINQ. 321, 325 (2016).

24 David P. Farrington, *Key Results from the First Forty Years of the Cambridge Study in Delinquent Development*, in *TAKING STOCK OF DELINQUENCY: AN OVERVIEW OF FINDINGS FROM CONTEMPORARY LONGITUDINAL STUDIES* 137, 148 (Terence P. Thornberry & Marvin D. Krohn eds., 2001) [hereinafter *Farrington, Key Results*]; see also Akiva M. Liberman, *Synthesizing Recent Longitudinal Findings*, in *THE LONG VIEW OF CRIME: A SYNTHESIS OF LONGITUDINAL RESEARCH* 3, 3–20 (Akiva M. Liberman ed., 2008) [hereinafter *THE LONG VIEW OF CRIME*].

25 Farrington, *Key Results*, *supra* note 24, at 149 (comparing study of London inner-city youth in 1960s with comparable study of Pittsburgh inner-city youth in 1980s and noting that “[s]imilar results have been reported by many other researchers”); see also *THE LONG VIEW OF CRIME*, *supra* note 24, 3–20; David P. Farrington, *Conduct Disorder and Delinquency*, in *RISK AND OUTCOMES IN DEVELOPMENTAL PSYCHOPATHOLOGY* 165, 175–80 (Hans-Christoph Steinhausen & Frank C. Verhulst eds., 1999); David Farrington, *The Causes and Prevention of Violence*, in *VIOLENCE IN HEALTH CARE* 1, 6–14 (Jonathan Shepherd ed., 2001).

26 See K.R. Laurens et al., *Pervasive Influence of Maternal and Paternal Criminal Offending on Early Childhood Development: A Population Data Linkage Study*, 47 *PSYCHOL. MED.* 889, 897 (2017) (surveying literature); see also David P. Farrington et al., *The Concentration of Offending in Families*, 1 *LEGAL & CRIMINOLOGICAL PSYCHOL.* 47, 48–49 (1996) (same).

27 Farrington, *Key Results*, *supra* note 24, at 154. For a detailed account of some of the major longitudinal studies, see Alex R. Piquero et al., *The Criminal Career Paradigm*, 30 *CRIME & JUST.* 359, 363–77 (2003).

ily size, a convicted parent, poor parental child-rearing behavior, and low nonverbal intelligence) were highly predictive of adolescent and adult crime: “14% of males with no risk factors [at age 8–10] were convicted after age 21, compared with 64% of males with three or four risk factors at age 8–10.”²⁸ In the Cambridge and other research studies, adolescents heavily involved in delinquent activity are also likely to be heavily involved in minor offenses with a low probability of arrest.²⁹

Longitudinal and cross-sectional studies have also established both that criminal misbehavior is widespread during adolescence³⁰ and that it rarely persists more than a few years into adulthood.³¹ Indeed, even when delinquency does lead to adult crime, criminal activity typically ceases, whether or not the individual is incarcerated, within five to ten years of onset.³²

Persistence of offending into adulthood is less well understood. In the Cambridge study, persistence in offending after age twenty-one was significantly linked to having a convicted parent, unemployment, and problem drinking;³³ convicted teenagers who were both unemployed and heavy drinkers had an “exceptionally high probability of persistence (nearly 90%).”³⁴ Some studies suggest that early cognitive and behavioral problems are predictive,³⁵ and truancy, which is associated with behavioral problems, is also cor-

28 Farrington, *Key Results*, *supra* note 24, at 160.

29 See 2 CRIMINAL CAREERS AND “CAREER CRIMINALS” 55 (Alfred Blumstein et al. eds., 1986) (reporting that drug use by minors is associated with committing minor crimes); Piquero et al., *supra* note 27, at 378.

30 See J. David Hawkins et al., *Delinquent Behavior*, 23 PEDIATRICS REV. 387, 387 (2002) (“Most juveniles report committing at least one delinquent act, and many are involved in some type of delinquent behavior each year. This appears to be relatively constant over time and across geographic areas.”); see also JAMES W. BURFEIND & DAWN JEGLUM BARTUSCH, JUVENILE DELINQUENCY: AN INTEGRATED APPROACH 116 (2006) (explaining that in a national youth survey, almost two-thirds of U.S. adolescents reported involvement in less serious offenses such as minor theft, minor assault, and property damage, and about 20% reported involvement in more serious misconduct such as aggravated or sexual assault).

31 See *From Juvenile Delinquency to Young Adult Offending*, NAT’L INST. JUST. (Mar. 10, 2014), <https://www.nij.gov/topics/crime/Pages/delinquency-to-adult-offending.aspx> (reporting consistent findings that “40 to 60 percent of juvenile delinquents stop offending by early adulthood”).

32 See *id.* (reporting that “prevalence of offending tends to increase from late childhood, peak in the teenage years (from 15 to 19) and then decline in the early 20s” and that this “bell-shaped age trend . . . is universal in Western populations”).

33 See Farrington, *Key Results*, *supra* note 24, at 154.

34 *Id.*

35 See Aaron D. Boes et al., *Right Ventromedial Prefrontal Cortex: A Neuroanatomical Correlate of Impulse Control in Boys*, 4 SOC. COGNITIVE & AFFECTIVE NEUROSCIENCE 1, 1 (2009) (concluding that research results are “consistent with the notion that” structural and functional measurements of prefrontal brain predict individual tendencies toward impulsivity and vulnerability to behaviors (like substance abuse) resulting from poor impulse control); Daniel S. Shaw & Heather E. Gross, *What We Have Learned About Early Childhood and the Development of Delinquency*, in THE LONG VIEW OF CRIME, *supra* note 24, at 79, 79 (surveying research); see also Kimberly G. Noble et al., *Socioeconomic Disparities in Neurocognitive Development in the First Two Years of Life*, 57 DEVELOPMENTAL PSYCHOBIOLOGY 535, 536 (2015).

related with adult crime.³⁶ Genetic factors related to neuropsychological dysfunction appear to play a significant role in persistent criminal misconduct,³⁷ as does substance abuse. Close to forty percent of offenders serving time in jail report alcohol use at the time of their crimes.³⁸ Several longitudinal studies have also shown that certain key transitions, in particular marriage and employment, are significantly associated with desistance from criminal activity.³⁹ The evidence suggests that such life events can “have a positive effect on offenders’ lives.”⁴⁰

Longitudinal studies of individual children have been complemented by neighborhood-effects research, which has shown that a child’s address is an important variable in determining his individual risk of offending. Children who live in poor neighborhoods are more likely to be exposed to violence and to be victimized themselves.⁴¹ Mental illness, behavioral problems, lack of academic success, and criminal misconduct have all been linked to concentrated neighborhood disadvantage.⁴²

36 See, e.g., Brandy R. Maynard et al., *Who Are Truant Youth? Examining Distinctive Profiles of Truant Youth Using Latent Profile Analysis*, 41 J. YOUTH & ADOLESCENCE 1671, 1681 (2012); Michael Rocque et al., *The Importance of School Attendance: Findings from the Cambridge Study in Delinquent Development on the Life-Course Effects of Truancy*, 63 CRIME & DELINQ. 592, 606–07 (2017); Michael G. Vaughn et al., *Prevalence and Correlates of Truancy in the U.S.: Results from a National Sample*, 36 J. ADOLESCENCE 767, 768 (2013); see also David Jackson & Gary Marx, *Prison Data, Court Files Show Link Between School Truancy and Crime*, CHI. TRIB. (February 19, 2013), <https://www.chicagotribune.com/investigations/ct-xpm-2013-02-19-ct-met-prison-truancy-20130219-story.html>.

37 See, e.g., J.C. Barnes et al., *Examining the Genetic Underpinnings to Moffitt’s Developmental Taxonomy: A Behavioral Genetic Analysis*, 49 CRIMINOLOGY 923, 939 (2011) (based on analysis of twin pairs, genetic factors explained 56–70% of variance in being classified as a life-course-persistent offender across different coding strategies); Catherine Tuvblad & Kevin M. Beaver, *Genetic and Environmental Influences on Antisocial Behavior*, 41 J. CRIM. JUST. 273, 273–74 (2013) (reviewing literature and concluding that “approximately 50% of the total variance in antisocial behavior is explained by genetic influences”); Yao Zheng & H. Harrington Cleveland, *Differential Genetic and Environmental Influences on Developmental Trajectories of Antisocial Behavior from Adolescence to Young Adulthood*, 45 J. ADOLESCENCE 204, 209–10 (2015) (male-specific life-course-persistent antisocial behavior evidenced more genetic than environmental influence).

38 See LAWRENCE A. GREENFIELD, BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, ALCOHOL AND CRIME: AN ANALYSIS OF NATIONAL DATA ON THE PREVALENCE OF ALCOHOL INVOLVEMENT IN CRIME, at vi–vii (1998), <https://www.bjs.gov/content/pub/pdf/ac.pdf>.

39 See Holly Nguyen & Thomas A. Loughran, *On the Measurement and Identification of Turning Points in Criminology*, 1 ANN. REV. CRIMINOLOGY 335, 336–37 (2018) (reviewing studies).

40 Piquero et al., *supra* note 27, at 393 (reviewing literature).

41 See David Freedman & George W. Woods, *Neighborhood Effects, Mental Illness and Criminal Behavior: A Review*, 6 J. POL. & L. 1, 5 (2013) (reviewing research); David J. Harding, *Collateral Consequences of Violence in Disadvantaged Neighborhoods*, 88 SOC. FORCES 757, 758–59 (2009).

42 See Freedman & Woods, *supra* note 41, at 3 (reviewing research); see also Robert J. Sampson & William Julius Wilson, *Toward a Theory of Race, Crime, and Urban Inequality*, in CRIME AND INEQUALITY 37, 38–41 (John Hagan & Ruth D. Peterson eds., 1995).

Over the same period that longitudinal and neighborhood studies have given us the capacity to predict which children are at risk of delinquency and crime, researchers have also shed light on recidivism. Notably, neither the fact of incarceration (as compared to a community sanction) nor the term of confinement is associated with a reduction in recidivism.⁴³ Bureau of Justice Statistics researchers who assessed the impact of time served on recidivism using a nationally representative sample found that recidivism rates did not vary substantially for incarceration periods ranging from six months to five years.⁴⁴ And a meta-analysis of fifty studies involving 336,052 offenders, which controlled for risk factors such as criminal history and substance abuse, concluded that longer prison sentences were associated with a three percentage point *increase* (29% versus 26%) in recidivism.⁴⁵ Cross-national surveys generally fail to show a negative relationship between the average amount of time served for a crime and a lower crime rate,⁴⁶ and neighborhood surveys have found that high incarceration rates predict higher crime

43 See VALERIE WRIGHT, SENTENCING PROJECT, DETERRENCE IN CRIMINAL JUSTICE: EVALUATING CERTAINTY VS. SEVERITY OF PUNISHMENT 1 (2010), <https://www.sentencingproject.org/wp-content/uploads/2016/01/Deterrence-in-Criminal-Justice.pdf>.

44 See PATRICK A. LANGAN & DAVID J. LEVIN, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, RECIDIVISM OF PRISONERS RELEASED IN 1994, at 11 (2002), <https://www.bjs.gov/content/pub/pdf/rpr94.pdf>.

45 See PAUL GENDREAU ET AL., DEP'T OF THE SOLICITOR GEN. CAN., THE EFFECTS OF PRISON SENTENCES ON RECIDIVISM (1999), <http://www.prisonsucks.com/scans/e199912.htm> (reporting results of meta-analysis of 23 studies involving more than 68,000 prisoners); see also LIN SONG & ROXANNE LIEB, WASH. STATE INST. PUB. POLICY, RECIDIVISM: THE EFFECT OF INCARCERATION AND LENGTH OF TIME SERVED 1 (1993), https://www.wsipp.wa.gov/ReportFile/1152/Wsipp_Recidivism-The-Effect-of-Incarceration-and-Length-of-Time-Served_Full-Report.pdf (reviewing and summarizing literature); D.A. Andrews et al., *Does Correctional Treatment Work? A Clinically Relevant and Psychologically Informed Meta-Analysis*, 28 CRIMINOLOGY 369 (1990); Michael Mueller-Smith, *The Criminal and Labor Market Impacts of Incarceration 3* (Aug. 18, 2015) (unpublished manuscript), <https://sites.lsa.umich.edu/mgms/wp-content/uploads/sites/283/2015/09/incar.pdf>.

46 See BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, CROSS-NATIONAL STUDIES IN CRIME AND JUSTICE, at x, xii, xii tbls.1 & 2, 12, 14 (David P. Farrington et al. eds., 2004), <https://www.bjs.gov/content/pub/pdf/cnscj.pdf> (reporting, for burglary, "no substantial negative correlations between the average time served and the survey crime rate, and one substantial positive correlation for Australia (.40)" while "average time served for robbery was negatively correlated with the survey robbery rate only in the Netherlands (-.63) [and] . . . correlation was positive in England (.79)").

rates one year later.⁴⁷ Similarly, researchers have concluded that “juvenile incarceration results in . . . higher adult incarceration rates.”⁴⁸

Just as harsh sentences do not deter future crime, arrest does not appear to deter rearrest; more than a dozen studies have found that arrested individuals are, compared to similarly situated individuals not arrested, equally likely to experience a future arrest.⁴⁹ Several studies have also concluded that juvenile arrest increases the likelihood of dropping out of high school and negatively affects future employment.⁵⁰

Of course, there is much that we still do not understand about crime. For example, neither the dramatic increase in reported crime of the 1960s and 1970s nor the equally dramatic decline that began during the 1990s has been fully explained.⁵¹

Our understanding of how parental crime affects child outcomes is also incomplete. However, just as it is now clear that children of parents with criminal records are significantly more likely to engage in criminal conduct themselves,⁵² it is also well established that parental incarceration poses risks to children across multiple domains. Incarceration ensures greatly reduced

47 See Jeffrey Fagan et al., *Reciprocal Effects of Crime and Incarceration in New York City Neighborhoods*, 30 *FORDHAM URB. L.J.* 1551, 1585 (2003); see also Jeffrey Fagan & Tracey L. Meares, *Punishment, Deterrence and Social Control: The Paradox of Punishment in Minority Communities*, 6 *OHIO ST. J. CRIM. L.* 173, 173 (2008) (theorizing that high incarceration rate does not reduce crime because the “long-term and spatially concentrated shift of social and economic resources from informal social controls to formal legal controls, particularly incarceration, weakens localized informal social controls and creates recurring cycles of discontrol”).

48 Anna Aizer & Joseph J. Doyle, Jr., *Juvenile Incarceration, Human Capital, and Future Crime: Evidence from Randomly Assigned Judges*, 130 *Q.J. ECON.* 759, 759 (2015); see also BARRY HOLMAN & JASON ZIEDENBERG, JUSTICE POLICY INST., *THE DANGERS OF DETENTION: THE IMPACT OF INCARCERATING YOUTH IN DETENTION AND OTHER SECURE FACILITIES* 3 (2006), <http://www.justicepolicy.org/research/1978>.

49 See David Huizinga & Kimberly L. Henry, *The Effect of Arrest and Justice System Sanctions on Subsequent Behavior: Findings from Longitudinal and Other Studies*, in *THE LONG VIEW OF CRIME*, *supra* note 24, at 220, 226, 231 (reviewing literature).

50 See *id.* at 238–41; David S. Kirk & Robert J. Sampson, *Juvenile Arrest and Collateral Educational Damage in the Transition to Adulthood*, 86 *SOC. EDUC.* 36, 50 (2013) (finding that, among Chicago adolescents otherwise equivalent in prearrest characteristics, 73% of those arrested and 51% of those not arrested later dropped out of high school); see also Jeffrey Fagan & Richard B. Freeman, *Crime and Work*, 25 *CRIME & JUST.* 225 (1999).

51 In the United States, between 1960 and 1980 serious crime increased dramatically; between 1993 and 2015 serious crime declined about fifty percent. See John Gramlich, *5 Facts About Crime in the U.S.*, PEW RESEARCH CTR. (Oct. 17, 2019), <https://www.pewresearch.org/fact-tank/2019/10/17/facts-about-crime-in-the-u-s/>; David K. Sutton, *U.S. Crime Rates 1960–2010: The Facts Might Surprise You*, LEFT CALL (Feb. 23, 2012), <https://leftcall.com/4557/u-s-crime-rates-1960-2010-the-facts-might-surprise-you/> (both relying on FBI annual reports). For brief accounts of possible explanatory factors, see, for example, STEVEN PINKER, *THE BETTER ANGELS OF OUR NATURE: WHY VIOLENCE HAS DECLINED* 106–16 (2011); Matt Ford, *What Caused the Great Crime Decline in the U.S.?*, ATLANTIC (Apr. 15, 2016), <https://www.theatlantic.com/politics/archive/2016/04/what-caused-the-crime-decline/477408/>.

52 See *supra* notes 26–27 and accompanying text.

parental contact that, by itself, creates risks to child well-being.⁵³ Incarcerated parents also have greatly diminished capacity to provide for their children both financially and emotionally. As a result, families “experience reduced social capital, more financial problems, and more emotional issues when a family member is incarcerated, all likely to translate into negative outcomes for children. Children who experience paternal incarceration have worse health, lower well-being, and more delinquency than children who do not experience paternal incarceration.”⁵⁴

Researchers have also reported links between paternal imprisonment and maternal neglect,⁵⁵ as well as child truancy, depression, drug use, conduct disorders, learning disabilities, and academic problems.⁵⁶ Some negative effects of paternal incarceration have been identified in countries outside the United States, including the United Kingdom, Norway, the Netherlands, and Denmark.⁵⁷ Both the frequency and duration of incarceration appear to affect the magnitude of these risks. For example, even after controlling for a wide range of background characteristics, Danish children who experienced more frequent or more durable paternal incarcerations fared worse educationally than those whose fathers were incarcerated less often or for shorter periods.⁵⁸

Parental crime poses risks to children even without incarceration. Whether or not a parent is incarcerated, researchers have found that the children of offending parents are significantly more likely than similarly situ-

53 A range of research reports have established that parental separation poses risks to children. See, e.g., Robert Bauserman, *Child Adjustment in Joint-Custody Versus Sole-Custody Arrangements: A Meta-Analytic Review*, 16 J. FAM. PSYCHOL. 91, 97–98 (2002); William V. Fabricius & Linda J. Luecken, *Postdivorce Living Arrangements, Parent Conflict, and Long-Term Physical Health Correlates for Children of Divorce*, 21 J. FAM. PSYCHOL. 195 (2007); Valarie King & Juliana M. Sobolewski, *Nonresident Fathers' Contributions to Adolescent Well-Being*, 68 J. MARRIAGE & FAM. 537 (2006); Mary F. Whiteside & Betsy Jane Becker, *Parental Factors and the Young Child's Postdivorce Adjustment: A Meta-Analysis with Implications for Parenting Arrangements*, 14 J. FAM. PSYCHOL. 5 (2000).

54 Lars H. Anderson, *How Children's Educational Outcomes and Criminality Vary by Duration and Frequency of Paternal Incarceration*, 665 SOC. SCI. 149, 149 (2016) (citation omitted); see also JOYCE A. ARDITTI, *PARENTAL INCARCERATION AND THE FAMILY: PSYCHOLOGICAL AND SOCIAL EFFECTS OF IMPRISONMENT ON CHILDREN, PARENTS, AND CAREGIVERS* (2012); MEGAN COMFORT, *DOING TIME TOGETHER: LOVE AND FAMILY IN THE SHADOW OF THE PRISON* (2007); Yiyoon Chung, *The Effects of Paternal Imprisonment on Children's Economic Well-Being*, 86 SOC. SERV. REV. 455 (2012); Kristin Turney, *Paternal Incarceration and Children's Food Insecurity: A Consideration of Variation and Mechanisms*, 89 SOC. SERV. REV. 335 (2015).

55 See Kristin Turney, *The Consequences of Paternal Incarceration for Maternal Neglect and Harsh Parenting*, 92 SOC. FORCES 1607 (2014).

56 See LEILA MORSY & RICHARD ROTHSTEIN, *ECON. POLICY INST., MASS INCARCERATION AND CHILDREN'S OUTCOMES* 1–2 (2016), <https://www.epi.org/files/pdf/118615.pdf> (summarizing literature); Joseph Murray et al., *Parental Involvement in the Criminal Justice System and the Development of Youth Theft, Marijuana Use, Depression, and Poor Academic Performance*, 50 CRIMINOLOGY 255 (2012).

57 See Anderson, *supra* note 54.

58 See *id.*

ated children without offending parents to exhibit vulnerability, in early childhood, on measures of emotional, behavioral, social, cognitive, communicative, and physical functioning, and to present vulnerability on multiple domains.⁵⁹ These vulnerabilities may appear as early as eighteen months after a child's birth,⁶⁰ and violent offending by both fathers and mothers appears to have a greater impact than other forms of criminal misconduct.⁶¹

Questions about the origin and impact of crime and incarceration are particularly urgent in the United States. The United States classifies behaviors, in particular drug use, as criminal that many wealthy nations now treat as medical or social problems.⁶² This expansive use of criminal punishment as a solution to substance abuse greatly expands the reach of the criminal justice system. It is also a major reason why the United States has an incarceration rate higher than that of all other advanced nations.⁶³

The burden of U.S. conviction and incarceration policies is disproportionately borne by the poor, particularly those who are black. Youthful black Americans are more than twice as likely to be arrested as non-Hispanic white Americans.⁶⁴ And, although black Americans comprise only 12.6% of the U.S. population, they represent approximately 40% of both juveniles in confinement and the adult prison population.⁶⁵ As a result, in 2010, the proportion of the black population with a felony conviction (23%) was close to three times higher than that of the general population (8.1%).⁶⁶

59 See Rebekah Levine Coley et al., *Unpacking Links Between Fathers' Antisocial Behaviors and Children's Behavior Problems: Direct, Indirect, and Interactive Effects*, 39 J. ABNORMAL CHILD PSYCHOL. 791 (2011); Laurens et al., *supra* note 26, at 889; Alessandra Raudino et al., *The Intergenerational Transmission of Conduct Problems*, 48 SOC. PSYCHIATRY & PSYCHIATRIC EPIDEMIOLOGY 465 (2013); Cynthia Seymour, *Children with Parents in Prison: Child Welfare Policy, Program, and Practice Issues*, 77 CHILD WELFARE 469 (1998).

60 See Hyoun K. Kim et al., *Intergenerational Transmission of Internalising and Externalising Behaviours Across Three Generations: Gender-Specific Pathways*, 19 CRIM. BEHAVIOUR & MENTAL HEALTH 125, 130, 136 (2009).

61 See K.S. Kendler et al., *A Swedish Population-Based Study of the Mechanisms of Parent-Offspring Transmission of Criminal Behavior*, 45 PSYCHOL. MED. 1093, 1099 (2015); Laurens et al., *supra* note 26, at 889.

62 See Peter Kaplan, *Drug Prohibition: The International Alternatives*, HARV. POL. REV. (Jan. 10, 2013), <http://harvardpolitics.com/world/drug-prohibition-the-international-alternatives/>; Joel Shannon, *Marijuana Will Be Legal in Canada Starting October 17*, USA TODAY (June 19, 2018), <https://www.usatoday.com/story/news/politics/2018/06/19/canada-passes-legislation-legalizing-marijuana/716470002/>; see also EU Drugs Strategy 2013-20, 2012 O.J. (C 402) 1.

63 See KEARNEY ET AL., *supra* note 3, at 10.

64 See JOSHUA ROVNER, SENTENCING PROJECT, RACIAL DISPARITIES IN YOUTH COMMITMENTS AND ARRESTS 7 tbl.2 (2016), <https://www.sentencingproject.org/publications/racial-disparities-in-youth-commitments-and-arrests/>.

65 See *id.*; Peter Wagner & Wendy Sawyer, *Mass Incarceration: The Whole Pie 2018*, PRISON POLICY INITIATIVE (Mar. 14, 2018), <https://www.prisonpolicy.org/reports/pie2018.html>; see also Becky Pettit & Bruce Western, *Mass Imprisonment and the Life Course: Race and Class Inequality in U.S. Incarceration*, 69 AM. SOC. REV. 151 (2004).

66 See Tim Henderson, *Felony Conviction Rates Are Up Nationwide. These States Are Reconsidering How They Classify Crimes*, PBS (Jan. 2, 2018), <https://www.pbs.org/newshour/>

The explanation behind racial disparity in arrest, conviction, and incarceration is murky and contested.⁶⁷ Some experts have proposed that black Americans commit more violent crime that is likely to lead to incarceration.⁶⁸ Other experts have argued that discrimination—in police patrolling, profiling and arrest; in prosecutorial charging and plea bargaining; in judicial sentencing; and in prison and parole board disciplinary and release practices—is the most important factor.⁶⁹

There is evidence to support both theories. In 2016, 37.5% of those arrested for a serious violent offense and 52.6% of those arrested for murder were blacks, rates three to four times what one would expect given the proportion of black Americans in the U.S. population.⁷⁰ However, a number of studies have found that racial profiling and discriminatory police practices play a major role in explaining the gap between black and white arrest rates, particularly for drug offenses.⁷¹ Researchers who have controlled for factors such as crime severity and prior record have also reported that these factors cannot fully explain the gap between black and white incarceration rates and duration.⁷²

Although the sources of the racial gap in arrest and incarceration remain contested, the powerful association between crime, punishment, and

nation/felony-conviction-rates-are-up-nationwide-these-states-are-reconsidering-how-they-classify-crimes.

67 In recent years, the gap between white and black incarceration has declined; there is no more consensus on the reasons for this decline than there is on the reasons for the gap. See Eli Hager, *A Mass Incarceration Mystery*, WASH. POST (Dec. 15, 2017), <https://www.washingtonpost.com/news/wonk/wp/2017/12/15/a-mass-incarceration-mystery/>.

68 See, e.g., Stewart J. D'Alessio & Lisa Stolzenberg, *Race and the Probability of Arrest*, 81 SOC. FORCES 1381 (2003) (finding that several offense or offender characteristics other than race were related to the probability of arrest, including the offender's age, whether the offender was a stranger, and whether multiple offenses occurred); Robert J. Sampson & Stephen W. Raudenbush, *Seeing Disorder: Neighborhood Stigma and the Social Construction of "Broken Windows,"* 67 SOC. PSYCHOL. Q. 319 (2004) (finding that odds of violence were eighty-five percent higher for blacks compared to whites and that more than sixty percent of the black-white gap was explained by structural factors, including the marital status of parents, neighborhood social context, and demographic characteristics).

69 See, e.g., ALEXANDER, *supra* note 4.

70 See CRIMINAL JUSTICE INFO. SERV., FED. BUREAU OF INVESTIGATION, 2016 CRIME IN THE UNITED STATES tbl.21A, <https://ucr.fbi.gov/crime-in-the-u.s/2016/crime-in-the-u.s.-2016/topic-pages/tables/table-21> (last visited Mar. 16, 2020).

71 See DAVID A. HARRIS, PROFILES IN INJUSTICE: WHY RACIAL PROFILING CANNOT WORK (2002); Katherine Beckett et al., *Race, Drugs, and Policing: Understanding Disparities in Drug Delivery Arrests*, 44 CRIMINOLOGY 105 (2006).

72 See, e.g., NATHANIEL LEWIS, PEOPLE'S POLICY PROJECT, MASS INCARCERATION: NEW JIM CROW, CLASS WAR, OR BOTH? (2018) <https://www.peoplespolicyproject.org/2018/01/30/mass-incarceration-new-jim-crow-class-war-or-both/>; see also Derek Neal & Armin Rick, *The Prison Boom and Sentencing Policy*, 45 J. LEGAL STUD. 1 (2016) (finding that shift to more punitive sentencing policies had disproportionate effect on black communities even though, for the most part, this shift did not target blacks or crimes that blacks commit relatively more than whites).

disadvantage is clear.⁷³ Arrest and incarceration, for white and black Americans, are overwhelmingly associated with poverty.⁷⁴ Indeed, the racial gap in crime-victimization rates largely disappears when poverty is taken into account.⁷⁵

The disproportionate impact of crime and punishment on the poor and marginalized magnifies, and potentially widens, the current, already-wide opportunity gap between those on the bottom and those on the top. And inequality harms not only those at the bottom, but society as a whole: nations and states with higher levels of economic inequality typically have higher rates of risk taking, crime, gambling, consumer debt, violence, drug use, and health problems.⁷⁶

In sum, research that improves our understanding of the roots and results of crime, delinquency, and incarceration in disadvantaged families is desperately needed and vitally important to all.

II. OUR STUDY AND SAMPLE

Our study focuses on 688 families identified through paternity actions brought in St. Joseph County, Indiana, during 2008 and 2010. For these cases, the court-based record system that we obtained judicial permission to access provided us with extraordinarily rich and detailed information about focal children (the oldest born to parents subject to a sample paternity order) and their families. Unusually (perhaps uniquely), the record system provides clickable links to other family-court records for parents and their children. More specifically, we were able to access detailed information on child support awards and enforcement, the allocation of parenting time, orders of protection, child maltreatment reports and findings, juvenile status and delinquency charges, and the child's and parents' addresses and moves. The court records also enabled us to determine if the focal child's parents had children with other partners and, most of the time, both the number of other partners involved and the total number of children the parent had with those partners. For half-siblings living in St. Joseph County, we were able to access the same information available for focal children and their siblings. The same information was available for parents if the parent lived in St. Joseph County during his or her minority. For children and parents with a history of family-court involvement, the files also contained case notes. For

73 See JENNIFER L. TRUMAN & LYNN LANGTON, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, CRIMINAL VICTIMIZATION, 2014, at tbl.9 (2015), <https://www.bjs.gov/content/pub/pdf/cv14.pdf>.

74 See Elizabeth Brown & Mike Males, *Does Age or Poverty Level Best Predict Criminal Arrest and Homicide Rates? A Preliminary Investigation*, JUST. POL'Y J., Spring 2011, at 4–5 (reporting, based on examination of California data, that poverty status is strongly connected to higher levels of criminal arrest and homicide for every age, and poverty level is a significantly larger predictor of arrest and homicide risk than age).

75 See *id.* at 23; see also LEWIS, *supra* note 72.

76 See B. Keith Payne et al., *Economic Inequality Increases Risk Taking*, 114 PROC. NAT'L ACAD. SCI. 4643 (2017) (summarizing research).

example, we could typically see the results of drug tests, the number and duration of juvenile-facility stays or residential placements, school history (truancy, suspension or expulsion, behavioral problems), family background (parents involved in crime, family receives welfare, etc.), and the child's mental and emotional state (suicide precautions, risk of violence, known substance abuse). Using other databases,⁷⁷ we were able to determine whether parents had adult criminal records, if they had been incarcerated, and, most of the time, conviction charges. Finally, using recorded addresses, we were able to identify the census tracts in which the focal child and parents lived and the demographic characteristics associated with residence in those tracts. In sum, the database from which we obtained case information offered the opportunity to look at crime and delinquency across multiple generations and in detail.

The study site, St. Joseph County, Indiana, is an excellent location in which to study the origins and impact of crime and delinquency. First, Indiana's correctional policies and recent experience are fairly mainstream. Its adult incarceration rate is near the U.S. average.⁷⁸ Although its juvenile custody rate is relatively high, its black-white disparity rate is relatively low.⁷⁹ Like a number of other states, after three decades of constant upward movement, Indiana has also seen its prison population decline in recent years as a result of legislative and correctional initiatives designed to curb further

77 The Probate Court Quest database that was our primary source of information showed parental periods of incarceration that were known to the court. Indiana also has two open-access online record systems that enabled us to obtain detailed information on parental convictions and imprisonment for in-state crimes: Indiana MyCase, *see Case Search*, MYCASE.IN.GOV, <https://mycase.in.gov/> (last visited Mar. 12, 2020), with records dating from the 1990s, is searchable by name and birth date; it provides detailed case information about civil (including traffic infractions) and criminal cases in which the named individual was a party. The Indiana Department of Corrections also has an online database, *see Offender Search*, IND. DEP'T CORRECTIONS, <https://www.in.gov/apps/indcorrection/ofs/ofs> (last updated Mar. 12, 2020), searchable by name, birth date, and offender number, that describes periods of incarceration and conviction charges. The PACER database enabled us to obtain conviction and sentencing information for virtually all fathers prosecuted in federal court. For convictions and state incarceration outside of Indiana, we used both official, online databases and LexisNexis Accurint. State systems were often incomplete; for example, in Illinois, there is no online database for Cook County, the Illinois county where sample parents were most likely to have lived. Many online corrections databases (including those of neighboring states Illinois and Michigan) also delete records after a prisoner is released. Accurint gave us some information about crimes and sentences outside of Indiana, but we cannot be sure that our count of non-Indiana criminal activity is complete.

78 *Compare State-by-State Data*, SENTENCING PROJECT, <https://www.sentencingproject.org/the-facts/#rankings?dataset-option=SIR> (last visited Mar. 16, 2020) (showing Indiana slightly below U.S. overall using 2016 data), *with* Peter Wagner & Wendy Sawyer, *States of Incarceration: The Global Context 2018*, PRISON POL'Y INITIATIVE, <https://www.prisonpolicy.org/global/2018.html> (last visited Mar. 12, 2020) (showing Indiana slightly above overall U.S. incarceration rate after inclusion of juvenile offenders and some other groups not typically counted in incarceration statistics).

79 *See* sources cited *supra* note 78.

growth in both the prison population and the cost of confinement.⁸⁰ As in many other states that have experienced this trend, urban counties like St. Joseph have been its primary drivers, and much of the reduction in the prison population has been offset by an increase in jail confinement.⁸¹ Like most other states, Indiana has also been slow to provide adequate treatment for substance abuse. Until 2015, Indiana had no statewide program providing addiction or mental-health treatment as an alternative to incarceration⁸² and, until 2017, incarcerated adult offenders were not referred to addiction services until between fourteen and thirty-six months of their earliest release date.⁸³

In addition to its mainstream correctional policies and experience, the demography of St. Joseph County is fairly consistent with that of the United States as a whole except that it is somewhat poorer and has a lower proportion of Hispanic and foreign-born residents.⁸⁴ St. Joseph County also offers extremes. It is home to the University of Notre Dame, a prestigious school with more than 1000 full-time faculty members and professional staff. It also contains South Bend (population around 100,000), once a thriving hub of manufacturing employment that is now, like most of the American “Rust Belt,” struggling with a massive decline in stable, blue-collar employment. Most Notre Dame faculty and staff live in or near St. Joseph County, creating a large base of well-educated, well-paid citizens. But South Bend has entrenched pockets of deep poverty. In 2015, the *Economist* reported that “[t]he city’s unemployment rate remains in the low double digits; 28% of its inhabitants live below the poverty line and 75% of children in public schools are eligible for the free lunches offered to low-income families.”⁸⁵ St. Joseph County is thus a place that, in the aggregate, is pretty average. But its averages mask large contrasts, and, reflecting these contrasts, crime, unemployment, and poverty—and the families we studied—are highly concentrated in some neighborhoods.

80 See JACOB KANG-BROWN ET AL., *VERA INST. OF JUSTICE, THE NEW DYNAMICS OF MASS INCARCERATION* 22, 26–27 fig.8 (2018), <https://www.vera.org/publications/the-new-dynamics-of-mass-incarceration>.

81 See *id.*; Josh Keller & Adam Pearce, *A Small Indiana County Sends More People to Prison than San Francisco and Durham, N.C., Combined. Why?*, N.Y. TIMES (Sept. 2, 2016), <https://www.nytimes.com/2016/09/02/upshot/new-geography-of-prisons.html>.

82 For a description of Indiana’s 2015 substance-abuse initiative, see *infra* notes 159–60 and accompanying text.

83 See IND. DEP’T OF CORR., 2014 ANNUAL REPORT (2014), <https://www.in.gov/doc/files/2014DOCAnnualReport.pdf>. The Indiana Department of Corrections website also notes the possibility that offenders might have been sentenced to a “Therapeutic Communities” sentence. *Id.* at 12 (“Therapeutic Communities (TC’s) are specialized intensive therapeutic communities designed to treat offenders with severe drug addictions.”).

84 See *Small Area Income and Poverty Estimates (SAIPE)*, U.S. CENSUS BUREAU, https://www.census.gov/data-tools/demo/saipe/#/?map_geoSelector=aa_c&map_yearSelector=2010&year=2018,2010&state=18&county=18141 (last visited Mar. 16, 2020).

85 V.V.B., *Life in South Bend: A Company Town Without a Company*, ECONOMIST (May 19, 2015), <http://www.economist.com/blogs/democracyinamerica/2015/05/life-south-bend>.

Our sample, composed of 674 unmarried mothers and 672 fathers,⁸⁶ reflects the demographic variables—youth, lack of education, low income, membership in a racial minority—associated with nonmarital birth.⁸⁷ Fathers' median age at the birth of the focal child (the oldest born to these parents) was twenty-three years; mothers' median age was twenty two.⁸⁸ Median parental income for the sample was \$27,248 per year, well below the \$42,316 St. Joseph County median; only 25% of sample parents had combined incomes exceeding \$30,680 per year.⁸⁹ Fully 51.7% of sample fathers for whom race information was available were black, more than four times the proportion in St. Joseph County generally;⁹⁰ 37.9% were non-Hispanic white and 10.9% were Hispanic.

Perhaps unsurprisingly, while our sample was drawn from all parts of St. Joseph County, parents disproportionately lived in a handful of poor neighborhoods.⁹¹

86 Thirteen mothers and sixteen fathers appear twice (or, in one case, three times) in our sample of paternity/child support orders. Here, except when describing focal child outcomes, *see infra* Table 13, we report data on individual parents and have excluded later paternity actions involving a parent already included in the sample.

87 *See* Sara McLanahan & Wade Jacobsen, *Diverging Destinies Revisited*, in 5 *FAMILIES IN AN ERA OF INCREASING INEQUALITY: DIVERGING DESTINIES* 3, 3–23 (Paul R. Amato et al. eds., 2015).

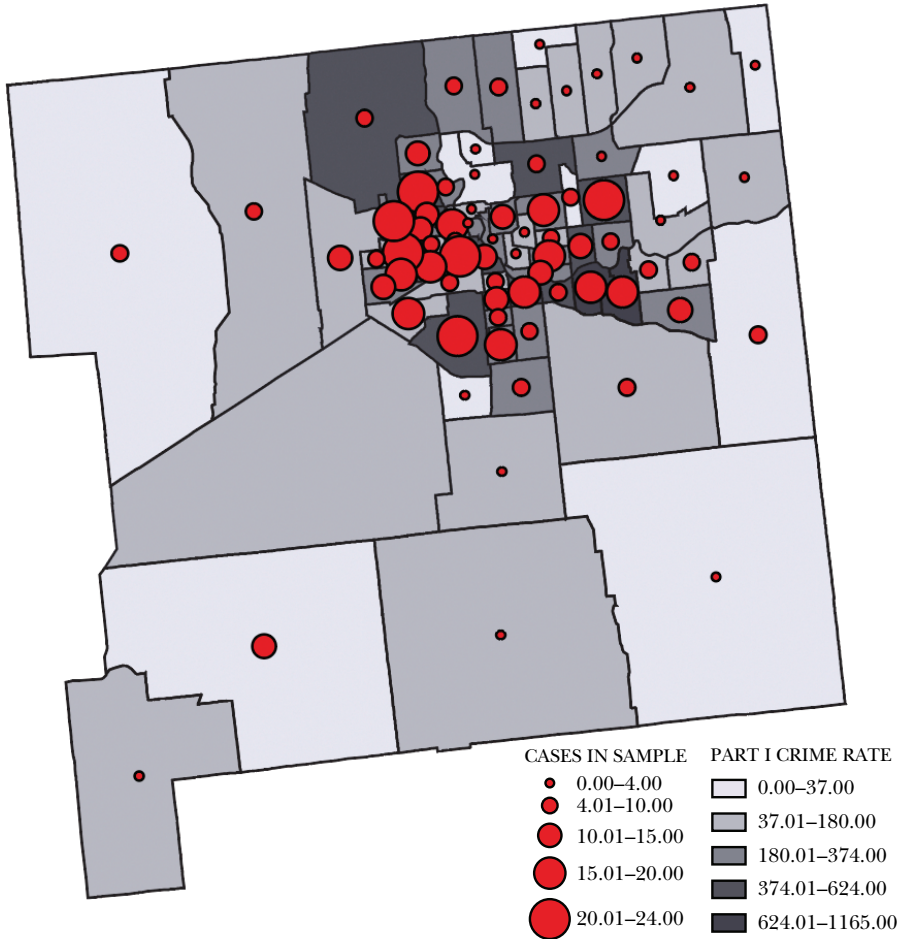
88 Hispanic parents tended to be younger than others, with a median age of twenty for mothers and twenty-two for fathers. Non-Hispanic white women (median age twenty) tended to be older than Hispanic or black mothers (median ages twenty-one and twenty, respectively); non-Hispanic white and black fathers had similar age profiles. In many cases, we were unable to determine the parent's age when his or her first child (with any partner) was born. Age at first birth is thus certainly lower for both fathers and mothers than in the general population, but we cannot estimate by exactly how much.

89 These figures almost certainly overstate parental income, as 47.1% of fathers and 55.9% of mothers involved in sample paternity actions had incomes that were "imputed" (i.e., made up). *See* Margaret F. Brinig & Marsha Garrison, *Getting Blood from Stones: Results and Policy Implications of an Empirical Investigation of Child Support Practice in St. Joseph County, Indiana Paternity Actions*, 56 *FAM. CT. REV.* 521, 526 (2018).

90 The St. Joseph County Quest database uses "African American" as a descriptive term for race instead of black. We have used the term black, following current style guides. *See African American, African-American, Black, black*, *DIVERSITY STYLE GUIDE* (Nov. 15, 2015), <https://www.diversitystyleguide.com/glossary/african-american-african-american-black-2/> (reviewing style guides). Our results showed that 42.4% of sample mothers were black, 47% were non-Hispanic white, and 9.1% were Hispanic. In 2010, 12.7% of St. Joseph County residents were black, 78.7% were non-Hispanic white, 7.3% were Hispanic, and 2.5% were other. *See By Decade: 2010*, U.S. CENSUS BUREAU, <https://www.census.gov/programs-surveys/decennial-census/decade.2010.html> (last visited Mar. 16, 2020).

91 More than half of focal children lived in seventeen of St. Joseph County's seventy-three census tracts. Nationally, poor neighborhoods have larger proportions of young children than better-off neighborhoods. *See, e.g.*, Charles Bruner, *ACE, Place, Race, and Poverty: Building Hope for Children*, 17 *ACAD. PEDIATRICS* S123, S124 (2017).

FIGURE 1



These poor neighborhoods had comparatively high rates of crime,⁹² incarceration,⁹³ and other indicators of disadvantage.⁹⁴ Indeed, using principal component analysis and census-tract variables related to social depriva-

92 South Bend's crime rates for both property and violent crime are among the highest in the nation. In 2016, its violent crime rate was more than double the rates of both Indiana and the nation. See Rebecca Bream, *South Bend One of the 'Worst Cities to Live In,' Study Finds*, PATCH (June 24, 2018), <https://patch.com/indiana/south-bend/south-bend-one-worst-cities-live-study-finds>. South Bend's crime is concentrated in the central city, where sample fathers typically lived. See *South Bend, IN Crime Rates*, NEIGHBORHOOD SCOUT, <https://www.neighborhoodscout.com/in/south-bend/crime> (last visited Mar. 16, 2020).

93 See OPPORTUNITY ATLAS, opportunityatlas.org (last visited Mar. 16, 2020) (showing South Bend incarceration rates ranging from less than one percent to fourteen percent).

94 See *id.*; see also Raj Chetty et al., *The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility* 41–45 (Nat'l Bureau of Econ. Research, Working Paper No. 25147, 2018), <https://www.nber.org/papers/w25147.pdf>.

tion, residential instability, and immigrant concentration,⁹⁵ we could predict about 70% of 2010 crime-rate variance across the census tracts where sample parents lived.⁹⁶

Families in our sample exhibited many signs of risk in addition to living in disadvantaged, crime-ridden neighborhoods. Among parents who lived in St. Joseph County at age fourteen (the only group for which we had family-history information), 39.1% of mothers and 27.4% of fathers came from families in which at least one parent or sibling was known to have been involved in adult crime or juvenile delinquency; 12.2% of mothers and 8% of fathers came from families with known histories of child maltreatment. Parental relationships tended to dissolve quickly;⁹⁷ despite the sample's relative youth, approximately half of both fathers and mothers already had at least one child with another partner.⁹⁸ Approximately a quarter of both mothers (24%) and fathers (26.2%) had one or more children who were the subject of a substantiated child maltreatment report or living with a guardian. Further, 10.4% of mothers and 15.5% of fathers had known histories of involvement with inti-

95 Principal component factor analysis (PCA) groups variables into clusters, or factors. See MARJORIE A. PETT ET AL., MAKING SENSE OF FACTOR ANALYSIS: THE USE OF FACTOR ANALYSIS FOR INSTRUMENT DEVELOPMENT IN HEALTH CARE RESEARCH 2 (2003). Here, we replicated the approach used by Andrew Papachristos. Andrew V. Papachristos et al., *Attention Felons: Evaluating Project Safe Neighborhoods in Chicago*, 4 J. EMPIRICAL LEGAL STUD. 223, 246 (2007). And, using PCA, we reduced twelve census-tract variables to three factors that, as described by Papachristos et al., reflect "ecological dimensions commonly associated with homicide: social deprivation, concentrated immigration, and residential stability." *Id.* (capitalization altered). Nine variables comprised a measurement of social deprivation; two, a measure of immigrant concentration; and two, a measure of residential stability. These PCA values are available upon request, as are a number of county-wide crime tables based on them.

96 R^2 (adj.) = .69 using stepwise regression and excluding fathers who lived outside St. Joseph County, for whom we did not have census-tract crime statistics. This prediction rate is almost identical to that of Sampson and Raudenbush who used a similar methodology to predict crime rates in various Chicago neighborhoods. Sampson & Raudenbush, *supra* note 68, at 327.

97 "[T]he median age of focal children (the first born to this mother and father) at the time a paternity/support order was entered was two years (average 3.56 years), and only 24.5% of focal children were five years or older at order entry." Margaret F. Brinig & Marsha Garrison, *Multipartner Fertility in a Disadvantaged Population: Results and Policy Implications of an Empirical Investigation of Paternity Actions in St. Joseph County, Indiana*, 52 FAM. L.Q. 27, 35 (2018). By comparison, in the national fragile families study, where both mothers and fathers were interviewed in the hospital or shortly after the child's birth, 35% of couples with a nonmarital child were still together when the child turned five. *Id.*; see also Sara McLanahan & Audrey N. Beck, *Parental Relationships in Fragile Families*, 20 FUTURE CHILD., Fall 2010, at 17, 21–22.

98 See Brinig & Garrison, *supra* note 97, at 36; see also Janna A. Dickenson et al., *Prevalence of Distress Associated with Difficulty Controlling Sexual Urges, Feelings, and Behaviors in the United States*, JAMA NETWORK OPEN e184468, Nov. 9, 2018, no. 7, at 5–6 (reporting that poverty and being a member of a racial minority are associated with elevated risk of uncontrollable sexual urges and behaviors).

mate-partner violence.⁹⁹ Substance abuse was also extremely common; based on the official sources available to us, 37.4% of fathers and 22% of mothers had problematic use of drugs and/or alcohol.¹⁰⁰ In sum, our study population is disproportionately composed of the most disadvantaged, fragile, and high-risk families, the very families most likely to be affected by crime and delinquency. And sample fathers did, indeed, exhibit high levels of delinquency, crime, and incarceration.

III. FATHERS' INVOLVEMENT WITH THE JUVENILE COURT: STATUS OFFENSES AND DELINQUENCY ARRESTS

A. *The Sample's Level and Type of Juvenile-Offense Involvement*

Unlike adult felony records, juvenile records are not available through any public database. We thus had access to juvenile records only for sample fathers who grew up in St. Joseph County. For this group ($N = 447$), involvement with the juvenile court was extremely common. Almost half (49.5%) of fathers known to have lived in St. Joseph County from age fourteen had at least one juvenile delinquency (JD) arrest,¹⁰¹ and 29.5% had at least one juvenile status (JS) offense (curfew violation,¹⁰² runaway,¹⁰³ truancy,¹⁰⁴ disobedience¹⁰⁵) charge.

99 Based on orders of protection, child welfare reports, or arrest records.

100 We determined problematic drug/alcohol use based on (1) a child protection investigation report describing substance abuse; (2) an adult conviction for the possession or sale of illegal drugs; (3) a DUI conviction; or (4) a juvenile record showing positive drug or alcohol tests, an arrest for possession or sale of illegal drugs, or a notation indicating substance abuse. We did not code a single marijuana possession or a single public-intoxication offense as substance abuse, whether the offense occurred as a juvenile or as an adult. Similarly, we did not code a single underage alcohol possession or a single positive alcohol or marijuana test as substance abuse. In sum, our determination of substance abuse is based on misconduct that led to official intervention by the police or child welfare authorities. Our count thus, almost certainly, underestimates the full extent of substance abuse within the sample, although it likely captures the most serious cases.

101 See IND. CODE § 31-37-2-1 (2019) (defining a delinquent child as one who, before becoming eighteen, "(1) commits a delinquent act described in this chapter; and (2) needs care, treatment, or rehabilitation that: (A) the child is not receiving; (B) the child is unlikely to accept voluntarily; and (C) is unlikely to be provided or accepted without the coercive intervention of the court").

102 See *id.* § 31-37-3-2(a) (defining curfew violation as being, "for a child fifteen (15), sixteen (16), or seventeen (17) years of age[,] . . . in a public place: (1) between 1 a.m. and 5 a.m. on Saturday or Sunday; (2) after 11 p.m. on Sunday, Monday, Tuesday, Wednesday, or Thursday; or (3) before 5 a.m. on Monday, Tuesday, Wednesday, Thursday, or Friday").

103 See *id.* § 31-37-2-2 (defining runaway as leaving home without parental permission).

104 See *id.* § 20-33-2-11 (defining a habitual truant as, at a minimum, "a student who is chronically absent, by having unexcused absences from school for more than ten (10) days of school in one (1) school year").

105 See *id.* § 31-37-2-4 (defining disobedience as "habitually disobey[ing] the reasonable and lawful commands of the child's parent, guardian, or custodian"). We did not code for a fifth category, *id.* § 31-37-2-6, for violation of alcoholic beverage purchase laws, since alcohol violations were almost always treated as juvenile offenses.

The most frequent status-offense charge was being a runaway; 45% of those with a status-offense record had a runaway charge. The least frequent charge was disobedience. (See Table 1 below.)

TABLE 1: FREQUENCY OF STATUS-OFFENSE CATEGORIES (IN-COUNTY FATHERS WITH STATUS-OFFENSE CHARGE, $N = 447$)

Type of Status Offense	Number	Percentage
Runaway	58	45.0
Truancy	47	36.4
Curfew violation	41	31.8
Disobedience	26	20.2

A runaway charge was significantly correlated with all other status offenses,¹⁰⁶ and crossover was fairly common: 25.9% of runaways also had truancy charges, 29% also had disobedience charges, and 17% had curfew charges.

Status offenses were also highly correlated with juvenile delinquency. More than four out of five (82.0%) fathers with a juvenile status-offense charge had at least one delinquency arrest, and 47.1% of fathers arrested on a delinquency charge had a juvenile status-offense charge.

Property crime was the most frequent type of crime for which a juvenile was arrested, although close to half of juveniles were arrested for a violent offense. (See Table 2.)

TABLE 2: FATHERS' DELINQUENCY ARRESTS BY TYPE (FATHERS ARRESTED ON ANY DELINQUENCY CHARGE) ($N = 222$)

Felony Type	Number	Percentage
Part I felony	126	54.5
Part I violent felony ¹⁰⁷	22	9.7
Part I property felony ¹⁰⁸	114	51.4
Any violent crime	105	46.9
Any property crime	133	59.4
Drug crime (except marijuana possession)	27	12.1
Marijuana possession	32	14.3
Underage alcohol offense	37	16.5

Note: Numbers do not add to 100 due to multiple arrests per individual.

Arrests for the most serious violent offenses were relatively rare, however. Less than 10% of juveniles were arrested on such a charge. The most com-

106 For curfew, $p = .020$; truancy, $p < .001$; and disobedience, $p < .001$.

107 Murder/manslaughter, rape, robbery, and aggravated assault.

108 Burglary, larceny, and motor vehicle theft. Count includes juveniles who also had a Part I violent arrest.

mon “top” arrest charge was felony larceny; in Indiana, until 2014, virtually any theft was classified as a Class D felony.¹⁰⁹ We thus suspect that the vast majority of felony theft cases involve nothing more than petty shoplifting. (See Table 3.)

TABLE 3: FATHERS’ MOST SERIOUS DELINQUENCY ARREST (FATHERS ARRESTED FOR ANY DELINQUENCY OFFENSE, $N = 224$)

Felony Type	Number	Percentage
Pt. I Violent Felony	22	9.7
Murder/Intentional Manslaughter	1	0.4
Rape	1	0.4
Robbery	17	7.6
Aggravated Assault	3	1.3
Pt. I Property Felony	104	46.4
Burglary	30	13.4
Larceny (69) and Motor Vehicle Theft (4)	73	32.6
Arson	1	0.4
Other Violent Crime¹¹⁰	46	20.4
Other Property Crime¹¹¹	9	4.0
Drug possession or sale	9	4.0
Drug sale (all)	2	0.9
Drug possession (except marijuana)	2	0.9
Marijuana possession	5	2.2
Liquor Law Violation	12	5.4
Illegal Gun Possession	2	0.9
Disorderly Conduct (8) and Public Drunk (1)	5	2.2
Other	15	6.7
TOTAL	224	100.0

Many juvenile offenders in our sample had multiple delinquency arrests: 32.4% had two or more arrests, and 15.5% had three or more.

109 Since 2014, theft of items worth less than \$750 is typically classified as a misdemeanor offense. IND. CODE § 35-43-4-2(a) (1) (indicating that theft is a class 6 felony when “(A) the value of the property is at least seven hundred fifty dollars (\$750) . . . ; [or] (B) the property is a: (i) firearm; . . . or (C) the person has a prior unrelated conviction for: (i) theft under this section; or (ii) criminal conversion”). Prior to 2014, in Indiana, “[a] person who knowingly or intentionally exert[ed] unauthorized control over property of another person, with intent to deprive the other person of any part of its value or use, commit[ted] theft, a Class D felony.” *Id.* § 35-43-4-2(a) (2013) (repealed 2014). In other words, during the period when fathers in our sample were juveniles, virtually all thefts were felony thefts.

110 Includes simple (nonaggravated) assault, intimate-partner assault, sex offenses (except rape), intimidation, and resisting arrest.

111 Includes forgery, fraud, receiving stolen property, and conversion.

A large portion of delinquency arrests were informally adjusted. However, detention and residential placement were still common. Among fathers with at least one delinquency arrest or status-offense charge ($N = 244$), 39.8% spent some time confined in detention and/or residential placement, and 29.3% experienced three or more confinement periods. Some placements were quite short, but others extended for months. Among the ninety-eight fathers who experienced at least one period of confinement, confinement time ranged from two to six hundred days; the median duration of confinement time was ninety-eight days, and 25% spent 175 days or more confined in one or more juvenile facilities.

B. Predicting Delinquency and Placement

As one would expect from prior delinquency research,¹¹² delinquency arrest was highly correlated with family crime history, prior maltreatment, substance abuse, and behavioral problems such as disobedience and being a runaway. These five variables explained more than a third of case variance.¹¹³ Race was not significantly related to the likelihood of a delinquency arrest. (See Table 4.)

TABLE 4: PREDICTORS OF FATHER'S DELINQUENCY ARREST
(IN-COUNTY FATHERS, $N = 446$)

Variable	B	S.E.	Wald	Significance	Odds Ratio
F has school problems ¹¹⁴	2.144	.397	29.184	<.001	8.532
F was a runaway	1.454	.509	8.157	.004	4.279
F has or develops drug/ alcohol problem ¹¹⁵	1.033	.249	17.284	<.001	2.810
F was maltreated	2.522	1.101	5.242	.022	12.448
F family history ¹¹⁶	1.720	.319	29.123	<.001	5.585
Constant	-1.426	.173	68.336	<.000	.240

Of course, we do not have a record of behavioral problems like running away or truancy except when these are recorded in the official court record; for fathers without any juvenile record we thus lack information on school problems and other behavioral issues. There are undoubtedly other sample

112 See, e.g., Rocque et al., *supra* note 36, at 596; Shaw & Gross, *supra* note 35; Vaughn et al., *supra* note 36.

113 R^2 (Cox and Snell) = .363; (Nagelkerke) = .484, $N = 445$.

114 The father's school problems category includes all cases with formal, juvenile status truancy charges as well as cases in which the record showed that the father was, in fact, truant, had been suspended, or had been expelled.

115 As determined through juvenile or adult records.

116 Father's positive family history includes all cases in which siblings were known to have delinquency/status offense records or parents were known to have records of adult crime.

fathers who had juvenile behavior problems. However, court involvement is most likely in cases of serious behavioral problems that parents and school officials feel inadequate to handle. We thus believe that, while we have not captured all behavioral problems among sample fathers, we have likely, for the in-county group, captured the most significant.

The number of days a father spent in detention/residential placement was significantly linked with variables similar to those predicting delinquency. However, the father's identification by juvenile authorities as having a substance-abuse problem replaced the any-time-identification-as-a-substance-abuser variable as a predictor. Having a Part I (most serious) felony arrest and number of juvenile status charges were also significant. Regression analysis using these variables predicted almost 40% of case variance.¹¹⁷ (See Table 5.)

TABLE 5: PREDICTORS OF FATHER'S DAYS IN CONFINEMENT (DETENTION/
RESIDENTIAL PLACEMENT) (IN-COUNTY FATHERS WITH
JS OR JD OFFENSE RECORD, *N* = 244)

Variable	B	S.E.	Std. B	T	Significance
(Constant)	-27.314	8.648		-3.158	.002
F has school problems	63.842	12.376	.309	5.159	<.001
F JD Pt. I*	51.821	12.911	.215	4.014	<.001
F family history	39.413	11.074	.191	3.559	<.001
F was maltreated	52.607	19.666	.138	2.675	.008
F JS disobedience	57.603	18.917	.177	3.045	.003
F known juvenile substance abuse	24.636	11.053	.119	2.229	.027
F JS runaway	44.904	16.144	.189	2.781	.006
F JS total	-10.382	5.263	-.157	-1.973	.050

Note: *except theft

Because so many juveniles did not specialize in a particular type of delinquency, there were no variables capable of predicting, at more than a trivial level, either the seriousness or type of delinquent behavior for which juveniles were arrested.

C. From Juvenile Offending to Crime

How does delinquency relate to adult criminal activity? Fathers who had at least one delinquency arrest were far more likely (45.7% versus 24.6%) than fathers without such an arrest to have an adult felony conviction. But more than half of fathers arrested for delinquency did not have such a record, and status offenses (49.5%) were somewhat more closely linked with

117 Adjusted $R^2 = .396$.

adult crime than delinquency. Moreover, close to a quarter of in-county fathers without any juvenile record did have adult criminal records.

For the full in-county sample, the most important factors predicting adult felony conviction were substance abuse, parental crime history, race, and a personal history of serious (Part I) delinquency. The fact that the father was known by the probate court to have a juvenile substance-abuse problem also contributed significantly, and negatively, to the predictive model. (See Table 6.)

TABLE 6: PREDICTORS OF ADULT FELONY CONVICTION
(IN-COUNTY FATHERS, $N = 446$)

Variable	B	S.E.	Wald	Significance	Odds Ratio
F parental crime	1.405	.483	8.469	.004	4.075
F substance abuse	2.741	.318	74.281	<.001	15.508
F JS and JD total (#)	.140	.045	9.750	.002	1.150
F known juvenile substance abuse	-1.655	.374	19.533	<.001	.191
F JD Pt.1*	.778	.382	4.143	.042	2.177
F is black	.690	.250	7.616	.006	1.994
Constant	-2.464	.253	94.540	<.001	.085

These six variables explained about a third of case variance.¹¹⁸ An almost identical set of variables was, after regression analysis, significantly linked with the number of a father's adult felony convictions.¹¹⁹ Fathers whom we identified as having a substance-abuse problem were four times more likely than others to have adult-felony records (60.5% versus 16.3%), and fathers with a serious delinquency arrest were twice as likely (66.7% versus 33.3%). Even within the group with juvenile records, fathers with substance abuse (59.4% versus 23.8%) and those with a serious juvenile arrest (69.6% versus 38.9%) were about twice as likely to go on to adult crime when compared to

118 R^2 (Cox and Snell) = .299; (Nagelkerke) = .412, $N = 446$.

119 Adj. R^2 = .266. Predictors of Father's Felony Convictions (Number)

Variable	B	S.E.	Std. B	T	Significance
(Constant)	.092	.070		1.314	.190
F substance abuse	.940	.112	.457	8.384	.000
F JD Pt. I *	.429	.145	.141	2.962	.003
F parental crime	.429	.169	.110	2.539	.011
F known juvenile substance abuse	-.552	.138	-.235	-3.991	.000
F JD arrest total (#)	.066	.020	.174	3.269	.001
Father is black	.180	.084	.088	2.145	.033

Note: *except theft

those without such histories; fathers who were black were somewhat more likely (48.1% versus 40.4%) to do so. Although significantly correlated with adult felony arrest, neither a juvenile status record nor school problems retained a significant relationship with adult crime after regression analysis.

The negative relationship between a known juvenile substance-abuse problem and adult crime is intriguing and encouraging. At the very least, the negative correlation shows that whatever interventions local officials have been using for juvenile substance abuse do not add to the likelihood of adult crime. It is even possible that these interventions have had a positive impact.

We did not have access to information on educational attainment, the transition to employment (and unemployment), or neurological/cognitive functioning for any members of the sample, and we lacked address (i.e., neighborhood) information during childhood and adolescence for a substantial percentage of even in-county fathers. All of these variables have been linked to adult crime;¹²⁰ our capacity to predict the transition to an adult criminal career would likely improve substantially had we been able to include this information in our predictive model.

It is also possible that the inclusion of education, employment, and neighborhood information would reduce, or even eliminate, the significance of race as a predictor of adult crime. Black Americans are much more likely than non-Hispanic white Americans to drop out of school and to be unemployed; they are also more likely to live in the high-crime, disadvantaged neighborhoods that breed criminal careers.¹²¹ Given that we lack information on these variables, we suspect that our model overstates the significance of race.

IV. ADULT FELONY CRIME: FREQUENCY, TYPE, PUNISHMENT, AND CORRELATES

Fathers' adult felony convictions were widely distributed across crime categories. The most serious conviction charges are detailed in Table 7.¹²²

120 See, e.g., Laurens et al., *supra* note 26, at 897 (cognitive function); Farrington, *Key Results*, *supra* note 24, at 149 (neighborhood; school achievement).

121 See Raj Chetty et al., *Race and Economic Opportunity in the United States: An Intergenerational Perspective* 2–3 (Nat'l Bureau of Econ. Research, Working Paper No. 24441, 2018), <https://www.nber.org/papers/w24441.pdf> (reporting that male black Americans have substantially lower rates of upward mobility and higher rates of downward mobility than whites, leading to large income disparities that persist across generations).

122 The FBI's nationwide Uniform Crime Reporting (UCR) program classifies crimes into Part I and Part II offenses based on offense severity. See FED. BUREAU OF INVESTIGATION, U.S. DEP'T OF JUSTICE, UNIFORM CRIME REPORTING HANDBOOK 8 (2004). We used the FBI structure and numbering system. However, we combined embezzlement with fraud and, following Indiana charging conventions, created separate codes for intimate-partner assault (combined with stranger assault in the UCR system) and drug/marijuana possession (combined with drug sale in the UCR system). We also added codes for unlisted juvenile status offenses (truancy, disobedience) and for misdemeanor battery and theft.

TABLE 7: FATHERS' MOST SERIOUS FELONY CONVICTION (FATHERS CONVICTED OF ANY FELONY, $N = 234$)

Felony Type	Number	Percentage
Pt. I Violent Felony	68	29.0
Murder/Intentional Manslaughter	9	3.8
Rape	7	3.0
Robbery	25	10.7
Aggravated Assault	27	11.5
Pt. I Property Felony	45	19.2
Burglary	27	11.5
Grand Larceny and Motor Vehicle Theft	18	7.7
Other Violent Crime¹²³	38	16.2
Other Property Crime¹²⁴	4	1.8
Drug possession or sale	44	18.7
Drug sale (all)	20	8.5
Drug possession (except marijuana)	20	8.5
Marijuana possession	4	1.7
Driving While Intoxicated	14	6.0
Illegal Gun Possession	10	4.3
Other felony	8	3.4
Unknown	3	1.3
TOTAL	234	100.0

The most common crime types were violent and drug crimes; 46.3% of men with an adult felony history had at least one violence-related conviction, and 44% had at least one conviction for a drug-related offense. (See Table 8.)

123 Includes simple assault, intimate-partner assault, nonaggravated assault, sex offenses (except rape), intimidation, and resisting arrest.

124 Includes forgery, fraud, and criminal conversion.

TABLE 8: FATHERS' FELONY CONVICTION BY CRIME TYPE (FATHERS CONVICTED OF ANY FELONY, $N = 232$)

Felony Type	Percentage
Pt. I Felony	48.3
Pt. I Violent Felony	30.0
Pt. I Property Felony	19.5
Any violent felony	46.3
Any property felony	32.5
Any drug crime	44.0

Recidivism was common. Among men with at least one felony conviction ($N = 234$), less than half (41%) had been convicted of a felony only once; 32.5% had two felony convictions, and 24.4% had three or more. When misdemeanor convictions were taken into account, the proportion of one-time offenders was even smaller; only 24.4% of those with at least one felony conviction had no additional felony or misdemeanor convictions on their records.

Crime-type crossover was also common. For example, 28.4% of those with a property-crime conviction had also been convicted of a drug crime, and 34.2% had been convicted of some crime of violence. Similarly, less than half (46.1%) of men convicted of a drug crime did not also have at least one other conviction for a property or violent crime; 26% of those convicted of a drug crime had also been convicted of a violent felony, and 21% had a property-crime conviction.

Men with felony convictions were highly likely to experience incarceration. Ninety-one percent of men with a felony conviction experienced incarceration for ninety days or more. Indeed, 50.2% experienced more than one incarceration, and 21.6% were incarcerated three or more times.¹²⁵ Given limitations in our capacity to access conviction and sentencing information for crimes committed outside Indiana,¹²⁶ we cannot be sure that we have captured all cases in which community sanctions were imposed. But, for felony crimes for which we were able to obtain sentencing information, incarceration was the norm.

By far the most common types of cases in which a convicted felon obtained a community sanction were driving while intoxicated, drug posses-

¹²⁵ Mothers were almost equally likely to have experienced a delinquency arrest (46.9%), but less likely (14.1%) to have experienced juvenile-facility stays or residential placement while juveniles and were dramatically less likely to have been convicted of an adult felony or to have been incarcerated. Only 4.2% of sample mothers had such a conviction and only 3.9% had served ninety days or more in jail or prison. Again, we have delinquency data only for mothers who lived in St. Joseph County from age fourteen ($N = 439$).

¹²⁶ See *supra* note 77.

sion, and lesser types of violence; together these crimes accounted for 75.1% of all community-sanction cases. (See Table 9 below.)

TABLE 9: FELONIES FOR WHICH SENTENCE WAS PROBATION, BY TYPE

Felony Type	Number	% of All Probation Sentences
Pt. I Violent Felony	2	3.9
Aggravated assault	2	3.9
Pt. I Property Felony	5	9.7
Burglary	2	3.9
Grand Larceny and Motor Vehicle Theft	3	5.8
Other Violent Crime¹²⁷	13	25.0
Other Property Crime¹²⁸	2	3.9
Drug Possession (all)	15	28.9
Drug possession (except marijuana)	12	23.1
Marijuana possession	3	5.8
Driving While Intoxicated	11	21.2
Illegal Gun Possession	2	3.9
Other felony	2	3.9
Unknown	2	3.9
TOTAL	234	100.0

Even first offenders convicted of nonviolent crimes were unlikely to receive a community sanction. (See Table 10 below.) This was true even when the crime was one for which a community sanction was relatively common; for example, 75% of first offenders convicted of drug possession received an incarcerative sentence.

127 Includes simple assault, intimate-partner assault, sex offenses (except rape), intimidation, and resisting arrest.

128 Includes forgery, fraud, receiving stolen property, and conversion.

TABLE 10: FIRST-OFFENDER SENTENCES, BY CRIME ($N = 58$)

Offense	Community Sanction (#)	Incarceration (#)	Incarceration (%)
Robbery	0	1	100
Agg. Assault	2	4	67
Larceny	0	8	100
Motor vehicle theft	0	1	100
Other violent crime	2	1	33
Fraud/embezzlement	0	1	100
Domestic assault	2	1	33
Receiving stolen property	0	1	100
Illegal weapon	0	2	100
Drug sale	0	9	100
DUI	2	6	75
Other crime	0	4	100
Drug possession	1	8	13
Marijuana possession	1	0	0
Unknown	0	1	100
TOTAL	10	48	

One important reason for the infrequency of community sanctions is the Indiana Sentencing Guidelines, which impose mandatory prison terms for the vast majority of offenders with a prior adult felony record.¹²⁹ More complex rules also preclude a community sanction for many offenders whose only record is juvenile.¹³⁰ The guidelines do allow the court, in most cases involving the lowest-level felonies, to “enter judgment of conviction of a Class A misdemeanor and sentence accordingly”;¹³¹ no misdemeanor convictions carry mandatory minimum sentences.¹³²

The current sentencing guidelines were adopted in 2014. Like similar reforms in many other states, their aim was to reduce the prison population and related costs. Even tough-on-crime legislators found it hard to justify a policy under which the number of people in prison grew by over 40%—a rate three times higher than in neighboring states—during a period when the crime rate fell.¹³³ Indeed, in 2010, the Indiana Department of Correc-

129 See IND. CODE § 35-50-2-2.2 (2019).

130 See *id.* § 35-50-2-2.1.

131 *Id.* § 35-50-2-7(c).

132 See *id.* § 35-50-2-2.2.

133 See COUNCIL OF STATE GOV'TS JUSTICE CTR., JUSTICE REINVESTMENT IN INDIANA: SUMMARY REPORT AND POLICY FRAMEWORK 2 (2010), <https://www.in.gov/legislative/interim/committee/reports/CCECDB1.pdf>.

tions estimated that, if the then-current trend were to persist, the state would need to spend an additional \$1.2 billion on prison construction and operation by 2017.¹³⁴

Most of the convictions in our sample predate the 2014 reforms. Given the prominent role of prosecutorial policy and plea bargaining in sentencing, we cannot say to what extent the frequency of community sanctions would have increased had the post-2014 guidelines been in effect at all times. But the relative infrequency of offenders with only one conviction suggests that the overall incarceration rate would not have declined substantially.

As a group, men with felony convictions differed significantly from other men in the sample. Their incomes were lower,¹³⁵ and they had experienced more residential instability; they were also more likely to have partnered with a woman who was black and who had a felony record herself. Most importantly, they were more likely—more than three times as likely—to have a known substance-abuse problem. (See Table 11.)

TABLE 11: HOW FATHERS WITH FELONY CONVICTIONS DIFFERED FROM THOSE WITHOUT FELONY CONVICTIONS¹³⁶

Variable	B	S.E.	Wald	Significance	Odds Ratio
Father's substance abuse	1.996	.215	86.423	<.001	7.359
Father's moves since 2010 (#)	.119	.037	10.339	.001	1.127
Focal child's mother is black	.591	.218	7.313	.007	1.805
Focal child's mother has felony conviction	1.030	.505	4.160	.041	2.802
Father's gross income	-.005	.001	33.177	<.001	.995
Constant	-.998	.314	10.116	.001	.369

These five variables explained about a third of the variance between the felon and nonfelon groups.

Black men were significantly more likely to have felony convictions than both Hispanic and non-Hispanic white men.¹³⁷ But it was the race of the focal child's mother that survived regression analysis as a predictive variable. Black men partnered with women who were not black almost ten times as

134 *Id.*; see also *id.* at 3.

135 Nearly 50% of sample fathers had income that was imputed (i.e., made up). In imputed-income cases, the support obligor has no wage data from which to determine income. Except when the father was currently incarcerated, the local Office of Child Support Enforcement (IV-D) assumed a forty-hour minimum wage salary in all such cases until 2010 when, in some instances, it imputed income at \$104 per week. See Brinig & Garrison, *supra* note 89, at 526.

136 R^2 (Cox and Snell) = .315; (Nagelkerke) = .435. $N = 605$.

137 Pearson's $R = .192$, $p < .001$.

often as black women partnered with men outside their race (21.3% men, 2.9% women), a pattern consistent with that other researchers have observed using national data.¹³⁸ Black men in the sample who did partner outside their own race were much less likely to have a felony conviction (28.4% versus 48%); they also had, on average, higher incomes (\$306/week versus \$236/week). This pattern is, again, consistent with that observed nationally.¹³⁹ The fact that it is the mother's identification as black which survives as a predictor of the father's having a history of serious crime thus evidences the enormous disadvantages black women face in the mate market.

We separately analyzed crime groups (drug crime, property crime, violent crime) to determine if different variables differentiated men with specific crime histories from the larger sample. For all of these felony subsets, the father's substance abuse and income were the most important predictive variables. Other predictive variables did change somewhat, although the predictive values of regression models for these crime subsets was much lower, except for drug crime, than it was for the full set of fathers with felony convictions. (See Appendix.) For drug crime, a felony conviction in this category was significantly, and negatively, correlated with a history of intimate-partner violence (IPV) and the father's identification as non-Hispanic white.¹⁴⁰

While fathers with felony convictions did differ significantly from fathers without such convictions, it is important to note that the divide between the felony and nonfelony fathers was, in some cases, quite tenuous. For example, 29% of the sample had at least one misdemeanor conviction, and these convictions were not confined to the felon population; 39.7% of fathers with felony convictions and 23.3% of fathers with no felony conviction had been convicted of at least one misdemeanor. Given that many misdemeanor con-

138 See Gretchen Livingston & Anna Brown, *Intermarriage in the U.S. 50 Years After Loving v. Virginia*, PEW RESEARCH CTR. (May 8, 2017), <http://www.pewsocialtrends.org/2017/05/18/1-trends-and-patterns-in-intermarriage/> (reporting that black men are twice as likely to marry outside their race as black women and that intermarriage by black men is most likely for those who are college educated); see also RALPH RICHARD BANKS, *IS MARRIAGE FOR WHITE PEOPLE? HOW THE AFRICAN AMERICAN MARRIAGE DECLINE AFFECTS EVERYONE* 103–15 (2011); R. Kelly Raley et al., *The Growing Racial and Ethnic Divide in U.S. Marriage Patterns*, FUTURE CHILD., Fall 2015, at 89, 96.

139 See, e.g., Kyle D. Crowder & Stewart E. Tolnay, *A New Marriage Squeeze for Black Women: The Role of Racial Intermarriage by Black Men*, 62 J. MARRIAGE & FAM. 792, 799 (2000); Wendy Wang, *The Rise of Intermarriage*, PEW RESEARCH CTR. (Feb. 16, 2012), <https://www.pewsocialtrends.org/2012/02/16/the-rise-of-intermarriage/>.

140 Fathers with Drug Convictions vs. Other Fathers

Variable	B	S.E.	Wald	Significance	Odds Ratio
F has substance abuse	4.832	.729	43.968	.000	125.504
Father has IPV history	-.770	.384	4.011	.045	.463
Father is white	-.900	.331	7.385	.007	.407
Father's gross income	-.004	.001	14.469	.000	.996
Constant	-3.861	.745	26.829	.000	.021

Notes: R^2 (Cox and Snell) = .304; (Nagelkerke) = .505. N = 605.

victions were the result of plea bargaining down from a felony charge, an unknown, but likely not insubstantial, number of fathers narrowly escaped having a felony record.

High-risk behavior was also widespread across the sample. The Indiana MyCase database that we used to find Indiana misdemeanor and some felony convictions also shows traffic offenses. We did not record seatbelt violations or “simple” speeding tickets. We did record other, more serious traffic offenses and speeding when it was coupled with a suspended or revoked driver’s license. More than half (52.7%) of sample fathers had at least one such serious traffic offense, and 21.4% had three or more. Again, although high-risk behavior on the road was significantly higher among fathers with felony convictions,¹⁴¹ fathers without felony offenses often had significant traffic-infracton records. Indeed, 25% of fathers without a felony conviction had three or more serious traffic violations on their records.

Finally, we analyzed crime categories to determine whether there was significant variation within the felon population. Differences were small except for the group convicted of a serious violent crime. Unsurprisingly, men in this group were more likely to have been arrested for IPV. These men were also significantly less likely than other felons to have a known substance-abuse problem and more likely to live in a census tract with a high level of disadvantage. (See Table 12 below.)

TABLE 12: HOW FATHERS WITH CONVICTIONS FOR SERIOUS VIOLENT CRIMES DIFFERED FROM OTHER FELONS¹⁴²

Variable	B	S.E.	Wald	Significance	Odds Ratio
Father’s substance abuse	-1.392	.347	16.085	<.001	.249
Father has misdemeanor conviction	1.040	.339	9.389	.002	2.828
Father has IPV arrest	.377	.194	3.783	.052	1.459
Father’s census-tract disadvantage level	.575	.189	9.200	.002	1.776
Father has multiracial child	1.113	.458	5.909	.015	3.043
Constant	-.758	.312	5.902	.015	.468

V. PATERNAL CRIME AND CHILD OUTCOMES

Paternal crime was significantly correlated with a variety of negative child outcomes. Fathers who had been incarcerated were significantly more likely to have been involved in IPV, exposure to which is correlated with a

141 For the group with a felony conviction, the mean was 2.65, the median 2; for the group without a felony conviction, the mean was 1.75, the median 1 ($p < .001$).

142 R^2 (Cox and Snell) = .173; (Nagelkerke) = .239. $N = 211$.

variety of poor child outcomes.¹⁴³ They were also significantly more likely to have a child who was the subject of a substantiated child-maltreatment report. Incarcerated fathers had significantly less parenting time with their children, and their children experienced greater residential instability. Incarcerated men paid less in child support; they were more likely to accumulate arrears. (See Table 13 below.)

TABLE 13: PATERNAL FELONY CONVICTION, INCARCERATION AND CHILD OUTCOMES

Variable	Father's felony conviction	Father's incarceration
Focal child moves post 2010	.171***	.168***
Father has one or more children with substantiated maltreatment reports	.204***	.213*** (***)
Father has one or more children with JS/JD		.091* (*) ⁺
Father has IPV involvement	.136***	.115** (**) ⁺⁺
CS value (F pays support)	-.272***	-.267***
F parenting time (when M custody)	-.119 **	-.142*** (***)

Notes: ⁺ Part I crime; ⁺⁺ Violent crime; * $p < .05$; ** $p < .01$; *** $p < .001$. The significance levels inside parentheses are based upon regressions

Not all of these correlations survived regression analysis. However, the association between crime/incarceration and one or more substantiated child-maltreatment reports for the father's children did; focal children with incarcerated fathers were about 50% more likely to experience child maltreatment as compared to others (17.7% versus 11.8%). The associations between violent crime and IPV and between incarceration and parenting time also survived regression; so did the association between serious (Part I) paternal crime and status offenses/delinquency. Given the young age of many children (the median age of focal children in 2017 was only ten years), the strength of this last association could well increase in the years ahead.

These results are consistent with prior research. Reduced parental contact,¹⁴⁴ child maltreatment,¹⁴⁵ and delinquency¹⁴⁶ have all been linked with paternal crime and incarceration, and researchers have shown that the same risk factors apply to both IPV and other forms of violent behavior.¹⁴⁷

143 See, e.g., C. Nadine Wathen & Harriet L. MacMillan, *Children's Exposure to Intimate Partner Violence: Impacts and Interventions*, 18 PAEDIATRICS & CHILD HEALTH 419, 419 (2013) (reviewing literature).

144 See King & Sobolewski, *supra* note 53, at 552.

145 See, e.g., Turney, *supra* note 55, at 1628.

146 See Anderson, *supra* note 54, at 149.

147 See, e.g., Ligia Kiss et al., *The Link Between Community-Based Violence and Intimate Partner Violence: The Effect of Crime and Male Aggression on Intimate Partner Violence Against Women*,

Reduced parental contact, child maltreatment, delinquency, and exposure to intimate-partner violence have also been linked to a wide array of adverse adult outcomes. For example, maltreated children are more likely to experience developmental delays and to exhibit behavioral problems; as adults, they are at greater risk of both physical and mental-health impairment, substance abuse, criminal behavior, and becoming a maltreating parent.¹⁴⁸

VI. SUMMING UP

Let us sum up our findings so far. In our sample of unmarried fathers in a disadvantaged, midwestern county, close to half (49.5%) who lived in the county as adolescents were arrested at least once on delinquency charges and 29.5% were charged with a juvenile status offense. Many arrests did not lead to formal proceedings, and the vast majority of juveniles were arrested for low-level property offenses; less than 15% were arrested for a serious (Part I) felony after subtraction for felony theft. Nonetheless, 21.5% of those arrested or charged with a status offense spent time in confinement (juvenile detention or residential placement); indeed, the number of noncriminal status offenses a father had on his record was a better predictor of juvenile confinement time than the number of delinquency arrests.¹⁴⁹ Many juveniles also spent considerable amounts of time in confinement (detention or residential placement). For those with at least one confinement period, the median number of confinement days was 98, and 25% spent 175 or more days in confinement.

The sample's high rate of involvement with the juvenile justice system transitioned into a very high rate of adult involvement with the criminal justice system. Fully 34.8% of the full sample (including those who did not live in St. Joseph County during their adolescence) had been convicted of a felony offense by the time our data collection ended in 2018. An additional 15.5% had been convicted of at least one misdemeanor. Close to one-third (31.7%) had been incarcerated for 90 days or more, representing 91% of those with felony convictions. As with juvenile arrests, the vast majority of

16 PREVENTION SCI. 881, 882 (2015) (reviewing literature on links between male-to-male violence and male-to-female violence); see also Bradley Norlander & Christopher Eckhardt, *Anger, Hostility, and Male Perpetrators of Intimate Partner Violence: A Meta-Analytic Review*, 25 CLINICAL PSYCHOL. REV. 119, 119 (2005) (reporting that men who abuse partners reported moderately higher levels of anger and hostility than nonviolent men across assessment method).

148 See Joanne Grayson, *Maltreatment: Long Term Effects*, VA. CHILD PROTECTION NEWSL. (Child Protective Servs. Unit, Va. Dep't of Soc. Servs., Harrisonburg, Va.), Winter 2010, at 1, <https://psychweb.chbs.jmu.edu/Graysojh/pdfs/Volume087.pdf> (summarizing literature); *Long Term Consequences of Child Abuse and Neglect*, CHILD WELFARE INFO GATEWAY, <https://www.childwelfare.gov/topics/can/impact/long-term-consequences-of-child-abuse-and-neglect/> (last visited Mar. 16, 2020).

149 Pearson's $R = .392$, $p < .001$. The correlation with number of delinquency arrests was slightly higher (Pearson's $R = .442$, $p < .001$).

crimes committed by sample fathers were nonviolent, less serious felonies. Less than half (48.2%) were convicted of a serious (Part I) felony, and only 29% were convicted of a serious violent felony.¹⁵⁰ Nonetheless, nonincarcerative sanctions were extraordinarily rare. Looking across all convictions, only 9% produced a nonincarcerative sanction. These sanctions were concentrated in cases of drug possession and DUI, but most drug possession and DUI cases nonetheless led to incarceration.

Overwhelmingly, both delinquency and crime were strongly linked to substance abuse. Sixty percent of fathers with a delinquency or status-offense history also had a juvenile or adult history of problematic drug or alcohol use, and more than two-thirds (70.5%) of sample fathers with an adult felony conviction had such a history. Because we could not detect substance abuse unless it was evident from official sources, the real total may be higher. Indeed, the Indiana Department of Corrections has itself estimated that 80% of the offenders in its prisons need treatment for drug addiction.¹⁵¹

A father's adult crime was also significantly linked with problems for his children. Adult felony conviction, incarceration, or both were significantly linked with a range of serious risks, including less parenting time with the father, exposure to adult violence, and child maltreatment.

VII. WHAT TO DO?

A. Substance-Abuse Treatment and Decarceration

One expert group recently argued, based on national research, that 40% of the U.S. prison population could—and should—be released without any impact on public safety.¹⁵² Our data, which demonstrate the strong likelihood of incarceration for even nonviolent offenses and the powerful link between substance abuse and criminal careers, certainly support a deep reduction in the use of incarceration and a vast expansion in substance-abuse treatment. Two-thirds of the fathers in our sample with adult felony convictions had no serious violent felonies on their records; 18.7% had no crime more serious than a drug offense. Substance abuse was strongly correlated

150 This is not unusual. See, e.g., Robert L. Trestman et al., *Current and Lifetime Psychiatric Illness Among Inmates Not Identified as Acutely Mentally Ill at Intake in Connecticut's Jails*, 35 J. AM. ACAD. PSYCHIATRY & L. 490, 493 (2007) (estimating, based on Connecticut Department of Corrections (CDOC) records, that 78.8% of men and 88.6% of women were incarcerated for nonviolent offenses, a ratio "consistent with those in the overall CDOC population").

151 See Adam Staten, *Indiana Program to Get Offenders Treatment, Not Prison Cell*, WISHTV (Nov. 8, 2015), <https://www.wishtv.com/news/local-news/indiana-program-to-get-offenders-treatment-not-prison-cell/1115130236>; cf. *About Recovery Works*, IND. FAMILY & SOC. SERV. ADMIN., <https://www.in.gov/fssa/dmha/2940.htm> (last visited Mar. 16, 2020) (stating that 53% of those incarcerated in state prisons overall have substance abuse problems).

152 See JAMES AUSTIN ET AL., BRENNAN CTR. FOR JUSTICE, *HOW MANY AMERICANS ARE UNNECESSARILY INCARCERATED?* 26 (2016), <https://www.brennancenter.org/publication/how-many-americans-are-unnecessarily-incarcerated>.

with delinquency, an adult felony record, and the number of such convictions.

Our data are completely consistent with other research reports, including reports from Indiana.¹⁵³ Indeed, all the evidence suggests that substance abuse is powerfully criminogenic. Not only does it lead to drug sale and possession crimes, but it is strongly associated with other types of offending. Substance abusers commit crimes to obtain money for drugs.¹⁵⁴ The loss of inhibition caused by drugs and alcohol also leads to criminal misbehavior. Close to 40% of offenders serving time in jail report alcohol use at the time they committed their crimes,¹⁵⁵ and 55% report use of an illegal drug in the month before their arrests.¹⁵⁶

The evidence linking substance abuse and crime is now so overwhelming—and the failure of incarceration as a curative strategy so clear—that even “tough-on-crime” conservatives frequently support abandoning harsh mandatory-minimum sentences for drug crimes.¹⁵⁷ The need for substance-abuse treatment for juvenile and adult offenders whose criminal careers are driven by drug and alcohol dependency is even more uncontroversial. Many states have made modest steps, like Indiana’s 2014 sentencing guidelines reform, in the right direction.

These initial steps fall far short of what is needed to make meaningful inroads in the incarcerated population and in providing adequate substance-abuse treatment. In Indiana, as in many states that revised their sentencing guidelines with the aim of reducing (or at least stabilizing) the incarcerated population, the decline in the prison population has been largely offset by a sharp increase in jail inmates.¹⁵⁸ Indiana’s modest initiative to improve substance-abuse treatment for offenders similarly falls far short of what is needed. That initiative, Recovery Works, was approved by the Indiana legislature in 2015. It did, finally, establish a statewide program that provides vouchers for mental-health and addiction-assessment services as well as assistance in enrolling in the state’s expanded health care program for low-

153 See COUNCIL OF STATE GOV'TS JUSTICE CTR., *supra* note 133, at 3 (in 2009, 55% of Indiana prison admissions were property or drug offenders).

154 In 2004, 17% of state prisoners and 18% of federal inmates said they committed their current offense to obtain money for drugs. These percentages represent a slight increase for federal prisoners (16% in 1997) and a slight decrease for state prisoners (19% in 1997). See CHRISTOPHER J. MUMOLA & JENNIFER C. KARBERG, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, DRUG USE AND DEPENDENCE, STATE AND FEDERAL PRISONERS, 2004 (2006); CHRISTOPHER J. MUMOLA, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, SUBSTANCE ABUSE AND TREATMENT, STATE AND FEDERAL PRISONERS, 1997 (1999).

155 See GREENFIELD, *supra* note 38, at 20.

156 See Steven Belenko et al., *Treating Substance Use Disorders in the Criminal Justice System*, 15 CURRENT PSYCHIATRY REP. 414, 414 (2013).

157 See John Malcolm & John-Michael Seibler, *Criminal Justice Reform Is Alive and Well in Congress*, HERITAGE FOUND. (Oct. 3, 2017), <https://www.heritage.org/crime-and-justice/commentary/criminal-justice-reform-alive-and-well-congress>.

158 See KANG-BROWN ET AL., *supra* note 80, at 26 fig.8.

income Indiana residents.¹⁵⁹ The Indiana legislature allocated \$30 million dollars to Recovery Works for 2015 and 2016 while, in 2017, the adult prison budget—which does not include local jails or juvenile corrections—totaled \$496,604,344.¹⁶⁰

Despite the extremely modest funding it has received, Recovery Works assisted 12,042 individuals statewide between 2015 and 2017. A 2017 evaluation was also positive. It found that, among those Recovery Works clients who remained in the program for at least six months, there were statistically significant increases in rates of employment and insurance coverage as well as decreases in self-reported arrests. “Although not statistically significant, there were also increases in clients’ average family income.”¹⁶¹

Our data strongly support large-scale expansion of programs like Recovery Works. They also support funding for a variety of substance-abuse programs so as to develop optimal treatment modalities. At this point, we know that substance-abuse treatment—whether delivered in a community program, in jail, or as part of a “drug court” sentence—is associated with significantly reduced recidivism as compared to no treatment.¹⁶² But we do not have the data to determine which types of programs are most likely to succeed for particular offenders. States should invest, heavily, in research-driven programs with the aim of developing “best practice” guidelines that optimize the chances for success.

States also need to do much more to reduce the use of incarceration. For low-level, nonviolent crimes, sentencing-guideline revision that replaces mandatory incarceration with mandated community sanctions is one essential reform. Our finding on the high level of incarceration for nonviolent offenses is hardly unique. Indeed, the Brennan Center on Criminal Justice, after an exhaustive, nationwide survey, recently concluded that low-level offenders—those guilty of drug possession, lesser burglary, minor drug trafficking, minor fraud or forgery, minor theft and simple assault—constitute

159 Eligible felons must be at least 18 years old, have income under 200% of the federal poverty level, and not have any other source of health insurance. See *About Recovery Works*, *supra* note 151; see also *FAQ: Recovery Works Treatment and Criminal Justice Providers*, IND. FAM. & SOC. SERV. ADMIN., <https://www.in.gov/fssa/dmha/2929.htm> (follow “FAQ” hyperlink) (last visited Mar. 16, 2020).

160 See JOHN H. HILL ET AL., STATE OF IND. GOVERNOR’S TASK FORCE ON DRUG ENF’T, TREATMENT & PREVENTION, FINAL REPORT 20–21 (2016), <https://www.in.gov/recovery/files/2016finalreportrevised.pdf>; IND. DEP’T CORR., PER DIEM REPORT: JUVENILE FACILITIES (2017) (representing \$474,766,765 in operating expenses and \$14,171,620 in capital expenditures).

161 *Review Shows Program for Offenders with Mental Health or Addiction Issues Produces Positive Results*, IND. U. (Nov. 29, 2017), <https://news.iu.edu/stories/2017/11/iupui/releases/29-recovery-works.html>. However, the evaluation does not seem to have included a control group; 7.7% of all Recovery Works clients and 13.8% of those previously incarcerated were incarcerated after enrolling in Recovery Works. *Id.*

162 See Belenko et al., *supra* note 156, at 420 (reviewing literature); Redonna K. Chandler et al., *Treating Drug Abuse and Addiction in the Criminal Justice System: Improving Public Health and Safety*, 301 JAMA 183, 184 (2009) (reviewing literature).

about a quarter of the national prison population.¹⁶³ A wealth of evidence also supports the proposition that incarceration, for this population, is less effective than community sanctions in reducing recidivism.¹⁶⁴

States additionally need to eliminate mandatory incarceration for repeat offenders. There is no more reason to imprison a burglar who has committed three simple break-ins than the burglar who has committed one if the burglar's acts were driven by substance abuse. In such a case, no public-safety concern points toward imprisonment, and substance-abuse treatment—which for many offenders is more effectively delivered in a community setting—is clearly the priority.

Revision of crime definitions is also important. Indiana's recent revision of its larceny statute is a case in point. As we noted earlier, until 2014 in Indiana, virtually any theft was a felony theft. Under the pre-2014 law, two shoplifting convictions—involving goods worth, say, \$100 in total—would give an individual repeat-felony-offender status and thus largely preclude a community sanction. Since 2014, theft of items worth less than \$750 is typically classified as a misdemeanor offense.¹⁶⁵ This is a step in the right direction. But it does not go nearly far enough. As Professor Pfaff has demonstrated at length, increases in the prison population result from prosecutorial charging decisions as well as legislatively determined, harsh sentences for repeat and drug offenders.¹⁶⁶ Indiana's \$750 limit on theft misdemeanors, and similarly low felony thresholds in other states, thus should be raised. There is no evidence that higher limits produce more theft; states, like Indiana, that revised their misdemeanor-theft limits upward between 2000 and 2016 experienced property-crime declines comparable to those in states that did not revise their limits downward,¹⁶⁷ and many states have misdemeanor limits that are substantially higher than Indiana's.¹⁶⁸ Similarly, drug possession, except for very large quantities, should be reclassified as a misdemeanor offense or even as a simple infraction that carries no stigma. A large national survey found that higher drug-imprisonment rates are not significantly related to three measures (rates of illicit use, overdose deaths, and arrests) of drug problems.¹⁶⁹ Some states, notably California and Oregon, have already moved in this direction, while other states and

163 See AUSTIN ET AL., *supra* note 152, at 9.

164 See *id.* at 21–22 (reviewing research); *supra* note 150.

165 See *supra* note 109.

166 See JOHN F. PFAFF, *LOCKED IN: THE TRUE CAUSES OF MASS INCARCERATION—AND HOW TO ACHIEVE REAL REFORM* 127–59 (2017).

167 See PEW CHARITABLE TRS., *THE EFFECTS OF FELONY THEFT THRESHOLDS 2–4* (2017), <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/04/the-effects-of-changing-felony-theft-thresholds>.

168 See *id.* at 2 fig.1 (showing that 31 states used values, ranging from \$900 to \$2500, exceeding Indiana's \$750 felony threshold while nine used a lower, \$500 value).

169 See Letter from Adam Gelber, Dir. of Pew Charitable Trs., to Chris Christie, Governor (June 19, 2017), <https://www.pewtrusts.org/en/research-and-analysis/speeches-and-testimony/2017/06/pew-analysis-finds-no-relationship-between-drug-imprisonment-and-drug-problems>.

nations have decriminalized various types of drug possession altogether without any increase in drug use or crime.¹⁷⁰

B. *Reconceptualizing Crime*

Just as our data support the standard reform model of large-scale decarceration for nonviolent offenders and substance-abuse and mental-health treatment for the many offenders who need these services, they also demonstrate the model's inadequacy. The standard reform model recognizes the need for substance-abuse treatment and the strong links between substance abuse and criminal misbehavior, but it ignores the fact that both substance abuse and adult criminality are, for the vast majority of offenders, significantly linked with an array of high-risk behaviors deeply rooted in early life experience and extraordinarily difficult to treat in adulthood. In sum, the model ignores the fact that crime is a matter of public health as well as public safety.

In recent years, there has been growing appreciation for the fact that certain types of criminal offending are serious public-health problems. The Centers for Disease Control and Prevention (CDC) now classifies violence as a public-health issue, just as it so classifies intimate-partner violence and child maltreatment.¹⁷¹ Other national health agencies have adopted similar approaches to these types of criminal misbehavior.¹⁷² CDC does not—yet—classify general crime as a public-health problem. But our data, particularly when coupled with the other available evidence, strongly support such an approach.

Consider our sample from an epidemiological perspective. By the time we terminated our data collection in 2018, 24 (3.6%) of the 672 men in our youthful sample of unmarried fathers were already dead. Another 19 (2.8%) were known recipients of SSI or SSA disability benefits; eligibility for these benefits requires disability so severe that there is no job in the national economy the recipient can perform.¹⁷³

170 See Hannah Laqueur, *Uses and Abuses of Drug Decriminalization in Portugal*, 40 L. & SOC. INQUIRY 746, 746, 773–76 (2015) (summarizing research).

171 See CTRS. FOR DISEASE CONTROL & PREVENTION, *VIOLENCE PREVENTION: TIMELINE OF VIOLENCE AS A PUBLIC HEALTH PROBLEM* (2019), <https://www.cdc.gov/violenceprevention/publichealthissue/timeline.html>.

172 See generally WORLD HEALTH ORG. ET AL., *GLOBAL STATUS REPORT ON VIOLENCE PREVENTION 2014*, at iv (2014) (assessing research and national violence-prevention efforts worldwide); see also MARK A. BELLIS ET AL., U.K. NAT'L HEALTH SERV., *PROTECTING PEOPLE, PROMOTING HEALTH: A PUBLIC HEALTH TO VIOLENCE PREVENTION FOR ENGLAND 4* (2012), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/216977/Violence-prevention.pdf.

173 See 42 U.S.C. § 1382c(a)(1)(3) (2012). Both SSI and SSA disability benefits are restricted to those who can establish inability “to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment[s] which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months,” and an individual

High-risk behaviors were common and, while death and severe disability were spread relatively evenly across the sample, most high-risk behaviors were disproportionately concentrated in the group with felony convictions. (See Table 14.)

TABLE 14: HIGH-RISK BEHAVIOR (%) BY FELONY CONVICTION STATUS
(FULL SAMPLE)

Variable	Fathers with Felony Conviction (N = 234)	Fathers without Felony Conviction (N = 438)
Drug/alcohol abuse	70.5	22.1
DUI (any)	18.8	7.1
IPV involvement (any)	22.2	11.9
Serious traffic offenses (avg. #)	2.7	1.8
Child support enforcement	52.1	45.2
Postenforcement children with another partner	17.1	11.2

Our own data sources rarely included reliable information on nondisabling mental and physical illness or functional impairments. But prisoner surveys suggest that these conditions were common. The level of health problems and functional impairment within the prison population is, indeed, staggering. About 40% of prisoners report having one or more medical problems.¹⁷⁴ Close to half of prison and jail inmates report some sort of functional disability, most commonly learning disabilities,¹⁷⁵ and 40% or more have not completed high school.¹⁷⁶ About one in four suffer from

shall be determined to be under a disability only if his physical or mental impairment or impairments are of such severity that he is not only unable to do his previous work but cannot, considering his age, education, and work experience, engage in any other kind of substantial gainful work which exists in the national economy, regardless of whether such work exists in the immediate area in which he lives.

Id.

174 See LAURA M. MARUSCHAK, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, MEDICAL PROBLEMS OF PRISONERS tbl.1 (2008), <https://www.bjs.gov/index.cfm?ty=pbdetail&iid=1097>.

175 See *id.* at tbl.4 (36% of surveyed prisoners reported any impairment and 23% reported a learning disability); Jennifer M. Reingle Gonzalez et al., *Disproportionate Prevalence Rate of Prisoners with Disabilities: Evidence from a Nationally Representative Sample*, 27 J. DISABILITY POL'Y STUD. 106, 106 (2016) (41% of surveyed prisoners reported having a disability).

176 See CAROLINE WOLF HARLOW, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, EDUCATION AND CORRECTIONAL POPULATIONS (2003), <https://www.bjs.gov/index.cfm?ty=pbdetail&iid=814> (68% of state prison inmates had not received a high school diploma or equivalent); Stephanie Ewert & Tara Wildhagen, *Educational Characteristics of Prisoners: Data*

attention deficit hyperactivity disorder (ADHD).¹⁷⁷ More than a third of prison inmates and an even larger proportion of those in local jails have been told by a mental-health professional that they had a mental-health disorder.¹⁷⁸ Undiagnosed mental-health disorders are likely numerous; in a large, national study, 64% of jail inmates reported at least one symptom of mental illness, and 30.4% reported five or more symptoms of depression within the past year.¹⁷⁹ Indeed, an expert survey of jail inmates “who were not identified as acutely mentally ill at jail intake” determined that “[m]ore than two of three inmates met the criteria for at least one lifetime psychiatric disorder, almost half for an anxiety disorder, and more than one-third for an affective disorder.”¹⁸⁰ Suicide is now the leading cause of death in local jails and a growing problem;¹⁸¹ in one survey, 16% of jail inmates reported clinically significant suicidal ideation during confinement.¹⁸²

The high prevalence of physical, cognitive, and mental-health problems among those who are incarcerated is not accidental. These impairments, like the criminal activity that so often goes with such problems, are typically symptoms of earlier stresses and trauma. In our sample of in-county fathers whose juvenile records were available, prior maltreatment was evenly distributed among the sample. But all other indicators of childhood problems for which we had data—runaway status,¹⁸³ school problems, parental crime convic-

from the ACS, at tbl.4 (U.S. Census Bureau, Working Paper No. 2011-8, 2011), <https://www.census.gov/content/dam/Census/library/working-papers/2011/demo/ewert-wildhagen-prisoner-education-4-6-11.pdf> (based on American Community Survey, 40% of all prisoners and 53.8% of those 18–24 had not received a high school diploma or equivalent).

177 See S. Young et al., *A Meta-Analysis of the Prevalence of Attention Deficit Hyperactivity Disorder in Incarcerated Populations*, 45 *PSYCHOL. MED.* 247, 247 (2015).

178 See JENNIFER BRONSON & MARCUS BERZOFKY, BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, *INDICATORS OF MENTAL HEALTH PROBLEMS REPORTED BY PRISONERS AND JAIL INMATES, 2011–12* (2017), <https://www.bjs.gov/content/pub/pdf/imhprpji1112.pdf> (reporting that 37% of prisoners and 44% of jail inmates reported having been told in the past by a mental-health professional that they had a mental disorder; about 1 in 7 state and federal prisoners (14%) and 1 in 4 jail inmates (26%)); JENNIFER BRONSON ET AL., BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, *DISABILITIES AMONG PRISON AND JAIL INMATES, 2011–12*, (2015), <https://www.bjs.gov/content/pub/pdf/dpji1112.pdf>.

179 See DORIS J. JAMES & LAUREN E. GLAZE, BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, *MENTAL HEALTH PROBLEMS OF PRISON AND JAIL INMATES* (2006); see also AUSTIN ET AL., *supra* note 152, at 13; Gergo Baranyi et al., *Prevalence of Posttraumatic Stress Disorder in Prisoners*, 40 *EPIDEMIOLOGIC REV.* 134, 143 (2018) (reviewing literature and reporting results of meta-analysis concluding that “[i]mprisoned individuals with PTSD are more likely to have comorbid mental disorders, particularly substance use, affective, and anxiety disorders” (footnotes omitted)).

180 Trestman et al., *supra* note 150, at 495–96.

181 See BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, *MORTALITY IN LOCAL JAILS, 2000–2014—STATISTICAL TABLES* (2016), https://www.bjs.gov/content/pub/pdf/mlj0014_sum.pdf.

182 See Karen E. Schaefer et al., *Suicidal Ideation in a United States Jail: Demographic and Psychiatric Correlates*, 27 *J. FORENSIC PSYCHIATRY & PSYCHOL.* 698, 698 (2016).

183 See SYDNEY MCKINNEY, STATUS OFFENSE REFORM CTR., *RUNAWAY YOUTH: A RESEARCH BRIEF* (2014) (reviewing literature); Joan S. Tucker et al., *Running Away from Home: A Longi-*

tions—were disproportionately concentrated among the group that went on to adult crime. (See Table 15.)

TABLE 15: CHILDHOOD RISK FACTORS, BY ADULT FELONY CONVICTION STATUS (IN-COUNTY FATHERS)

Variable	Percentage of Fathers with Felony Conviction (N = 156)	Percentage of Fathers without Felony Conviction (N = 290)
Father was maltreated	4.5	4.5
Father was runaway	21.8	9.3
Father was truant, suspended, or expelled	35.3	19.3
Father's parent(s) had criminal history	16.0	2.8

Our findings are consistent with national surveys. Over one-quarter of incarcerated men reported being abandoned during childhood or adolescence.¹⁸⁴ Over half report childhood physical trauma, and about one in six reports being physically or sexually abused before age eighteen.¹⁸⁵ Many more have witnessed violence. For example, a recent survey of recently released offenders found that 42%, when children, had seen someone be killed.¹⁸⁶ In sum, in addition to living in a disadvantaged, high-stress neighborhood and family, the typical offender has suffered a number of profound shocks and serious harms during his early years.

Today, there is no question that early trauma—now typically described, blandly, as adverse childhood experience—usually has lifelong consequences. Decades of research has established both that “similar conse-

tudinal Study of Adolescent Risk Factors and Young Adult Outcomes, 40 J. YOUTH & ADOLESCENCE 507 (2011).

184 See, e.g., Nancy Wolff & Jing Shi, *Trauma and Incarcerated Persons*, in HANDBOOK OF CORRECTIONAL MENTAL HEALTH 277, 287 (Charles L. Scott ed., 2d ed. 2010).

185 Nancy Wolff & Jing Shi, *Childhood and Adult Trauma Experiences of Incarcerated Persons and Their Relationship to Adult Behavioral Health Problems and Treatment*, 9 INT'L J. ENVTL. RES. & PUB. HEALTH 1908, 1909 (2012); see also CAROLINE WOLF HARLOW, BUREAU OF JUSTICE STATISTICS, U.S. DEP'T OF JUSTICE, PRIOR ABUSE REPORTED BY INMATES AND PROBATIONERS (1999); Nancy Wolff et al., *Patterns of Victimization Among Male and Female Inmates: Evidence of an Enduring Legacy*, 24 VIOLENCE & VICTIMS 469, 469 (2009); Bruce Western, *Lifetimes of Violence in a Sample of Released Prisoners*, 1 RUSSELL SAGE FOUND. J. SOC. SCI. 14, 18 tbl.1 (2015) (46.8% of released offenders reported being struck (other than spanking) by a parent during childhood).

186 See Western, *supra* note 185, at 18 tbl.1; Emily Badger, *Have You Ever Seen Someone Be Killed?*, N.Y. TIMES (May 25, 2018), <https://www.nytimes.com/2018/05/25/upshot/have-you-ever-seen-someone-get-killed.html>; see also Sandra A. Graham-Bermann & Julia Seng, *Violence Exposure and Traumatic Stress Symptoms as Additional Predictors of Health Problems in High-Risk Children*, 146 J. PEDIATRICS 349, 350 (2005).

quences can result from different antecedent risks” and that “ACEs tend to have a dose-response relationship” with an extraordinary array of adult problems.¹⁸⁷ The CDC now monitors ACEs and has summarized the voluminous literature succinctly:

The ACE score is the total sum of the different categories of ACEs reported by participants. Study findings show a graded dose-response relationship between ACEs and negative health and well-being outcomes. In other words, as the number of ACEs increases so does the risk for negative health outcomes.¹⁸⁸

The negative outcomes linked to ACEs include an array of chronic physical-health conditions, mental-health problems, educational and occupational deficits, high-risk behaviors, and early death.¹⁸⁹ Individuals with six or more ACEs have an average life expectancy fully twenty years lower than those without ACEs.¹⁹⁰

ACEs are strongly linked to violence. ACEs elevate both the risk of juvenile victimization and violent offending. They elevate the risk of experiencing and perpetrating intimate-partner violence.¹⁹¹ They are, in short, linked to every form of violence.¹⁹² As Dr. James Garbarino, a psychiatrist who has served as a medical expert in numerous murder cases, put it:

Over the past 20 years I have sat with more than 100 killers. . . . I ask them the 10 adverse childhood experiences (ACEs) questions.

. . . .

187 See J.P. Mersky et al., *Impacts of Adverse Childhood Experiences on Health, Mental Health, and Substance Use in Early Adulthood: A Cohort Study of an Urban, Minority Sample in the U.S.*, 37 CHILD ABUSE & NEGLECT 917, 917 (2013) (reviewing literature). ACEs include physical, sexual, and emotional abuse; neglect; exposure to intimate-partner violence; substance misuse within the child’s household; mental illness within the child’s household; parental separation or divorce; and parental incarceration.

188 *Behavioral Risk Factor Surveillance System ACE Data: Major Findings*, CTNS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/violenceprevention/acestudy/ace_brffss.html.

189 See Karen Hughes et al., *The Effect of Multiple Adverse Childhood Experiences on Health: A Systematic Review and Meta-Analysis*, 2 LANCET PUB. HEALTH e356, e356 (2017); Manuel E. Jimenez et al., *Adverse Childhood Experiences and ADHD Diagnosis at Age 9 Years in a National Urban Sample*, 17 ACAD. PEDIATRICS 356, 356 (2017) (ACEs were significantly associated with ADHD at age nine); Karen A. Kalmakis & Genevieve E. Chandler, *Health Consequences of Adverse Childhood Experiences: A Systematic Review*, 27 J. AM. ASS’N NURSE PRACTITIONERS 457, 463 (2015).

190 See *Adverse Childhood Experiences: Looking at How ACEs Affect Our Lives & Society*, CTNS. FOR DISEASE CONTROL & PREVENTION, https://vetoviolence.cdc.gov/apps/phl/resource_center_infographic.html (last visited Mar. 16, 2020).

191 See Naomi N. Duke et al., *Adolescent Violence Perpetration: Associations with Multiple Types of Adverse Childhood Experiences*, 125 PEDIATRICS e778 (2010); Charles L. Whitfield et al., *Violent Childhood Experiences and the Risk of Intimate Partner Violence in Adults: Assessment in a Large Health Maintenance Organization*, 18 J. INTERPERSONAL VIOLENCE 166, 166, 174, 178 (2003).

192 See James A. Reavis et al., *Adverse Childhood Experiences and Adult Criminality: How Long Must We Live Before We Possess Our Own Lives?*, 17 PERMANENTE J. 44, 44 (2013).

I have come away from these experiences with the conviction that the best starting hypothesis in dealing with most killers is that they are “untreated traumatized children inhabiting and controlling the dangerous adolescents and adults that stand accused of murder.” Approximately . . . 0.01% of Americans (1 in 1000) report an ACEs score of 8, 9, or 10. The scores reported by the last 10 killers I interviewed had an average score of 8.¹⁹³

Individuals with high ACE scores are not only more prone to violence than others but also far more likely to develop problems—substance abuse, mental-health disorders, educational deficits—strongly linked to criminal careers.¹⁹⁴ Indeed, individuals with high ACE scores are more likely to engage in virtually every sort of risky behavior; smoking, crime, dangerous driving, and unprotected sex are all included in a pattern of high-risk activities “that may be consciously or unconsciously used because they have immediate pharmacological or psychological benefit as coping devices . . . [to alleviate] anxiety, anger, and depression.”¹⁹⁵ A National Health Service study in Wales thus found that, compared with individuals who reported no ACEs, those with four or more ACEs were four times more likely to be a high-risk drinker, six times more likely to have had or caused an unintended teen pregnancy, six times more likely to smoke, fourteen times more likely to have been a victim of violence over the past year, fifteen times more likely to have committed violence against another person over the past year, and twenty times more likely to have been incarcerated at some point.¹⁹⁶

193 James Garbarino, *ACEs in the Criminal Justice System*, 17 ACAD. PEDIATRICS S32, S32 (2017); see also JAMES GARBARINO, LISTENING TO KILLERS: LESSONS LEARNED FROM MY TWENTY YEARS AS A PSYCHOLOGICAL EXPERT WITNESS IN MURDER CASES (2015).

194 Timothy Ireland & Cathy Spatz Widom, *Childhood Victimization and Risk for Alcohol and Drug Arrests*, 29 INT’L J. ADDICTIONS 235 (1994); Rosalyn D. Lee & Jieru Chen, *Adverse Childhood Experiences, Mental Health, and Excessive Alcohol Use: Examination of Race/Ethnicity and Sex Differences*, 69 CHILD ABUSE & NEGLECT 40 (2017); Western, *supra* note 186; Cathy Spatz Widom, *Child Abuse, Neglect, and Violent Criminal Behavior*, 27 CRIMINOLOGY 251 (1989); *Preventing Adverse Childhood Experiences*, CTRS. FOR DISEASE CONTROL & PREVENTION, <https://www.cdc.gov/violenceprevention/childabuseandneglect/aces/fastfact.html> (last visited Mar. 16, 2020). High ACE scores have also been linked to homelessness. See Angela Bymaster et al., *A Pediatric Profile of a Homeless Patient in San Jose, California*, 28 J. HEALTH CARE FOR POOR & UNDERSERVED 582, 586 (2017).

195 Vincent J. Felitti et al., *Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study*, 14 AM. J. PREVENTIVE MED. 245, 253 (1998).

196 See JUSTICE ANALYTICAL SERVS., SCOTTISH GOV’T, UNDERSTANDING CHILDHOOD ADVERSITY, RESILIENCE AND CRIME 1 (2018), <https://www2.gov.scot/Resource/0053/00535550.pdf>; see also Donald G. Dutton & Stephen D. Hart, *Evidence for Long-Term, Specific Effects of Childhood Abuse and Neglect on Criminal Behavior in Men*, 36 INT’L J. OFFENDER THERAPY COMP. CRIMINOLOGY 129 (1992); Hanie Edalati et al., *Adverse Childhood Experiences and the Risk of Criminal Justice Involvement and Victimization Among Homeless Adults With Mental Illness*, 68 PSYCHIATRIC SERV. 1288, 1288 (2017) (in a population of homeless adults with mental illness, 50% reported more than four types of ACE, 19% reported three or four types, 19% reported one or two, and 12% reported none; rates of criminal justice involvement and victimization were significantly higher among those with a history of ACEs).

Although we do not, yet, fully understand why adverse childhood experience produces a predisposition toward high-risk behavior in adulthood, it is now clear that such experience has the capacity to produce enduring alterations in the brain, as well as the body's nervous, endocrine, and immune systems.¹⁹⁷ These potentially lifelong shifts in the body's physiology and functioning are particularly likely when the stress induced by exposure to ACEs is not buffered by a reassuring caregiver.¹⁹⁸ And, cumulatively, these shifts alter the body's response to stress, inducing a tendency toward "affective reactivity (depression, anxiety, and anger)" and "neurophysiological sensitivity" that stimulates "dysfunctional coping strategies" linked to high-risk behaviors and "impairments in educational and work force success."¹⁹⁹

ACEs are not randomly distributed across the population. Hispanic and, particularly, black children are more likely to experience ACEs than non-Hispanic white and Asian children.²⁰⁰ Poverty is even more highly correlated with ACE exposure than race/ethnicity.²⁰¹ "Being poor is associated with so many childhood adversities that it may be considered an ACE in itself."²⁰² Poverty also seems to serve as a "reinforcing mechanism" that creates the stresses that give rise to adverse conditions and then, through a "negative

197 See Hillary A. Franke, *Toxic Stress: Effects, Prevention and Treatment*, 1 CHILDREN 390, 390 (2014); see also Andrea Danese & Bruce S. McEwen, *Adverse Childhood Experiences, Allostatic Load, and Age-Related Disease*, 106 PHYSIOLOGY & BEHAV. 29, 33–35 (2012); M. Denise Dowd, *Early Adversity, Toxic Stress, and Resilience: Pediatrics for Today*, 46 PEDIATRIC ANNALS e246, e246 (2017); Kate Ryan Kuhlman et al., *Developmental Psychoneuroendocrine and Psychoneuroimmune Pathways from Childhood Adversity to Disease*, 80 NEUROSCIENCE & BIOBEHAVIORAL REV. 166, 166 (2017); Jack P. Shonkoff et al., *The Lifelong Effects of Early Childhood Adversity and Toxic Stress*, 129 PEDIATRICS e232, e232 (2012).

198 See Franke, *supra* note 197, at 391; Shonkoff et al., *supra* note 197, at e236.

199 Paula S. Nurius et al., *Stress Pathways to Health Inequalities: Embedding ACEs Within Social and Behavioral Contexts*, 8 INT'L PUB. HEALTH J. 241, 242 (2016); see also Laurie Leitch, *Action Steps Using ACEs and Trauma-Informed Care: A Resilience Model*, 5 HEALTH & JUST., no. 5, 2017, at 13–14.

200 See Vanessa Sacks & David Murphey, *The Prevalence of Adverse Childhood Experiences, Nationally, by State, and by Race or Ethnicity*, CHILD TRENDS (Feb. 20, 2018), <https://www.childtrends.org/publications/prevalence-adverse-childhood-experiences-nationally-state-race-ethnicity>; see also Lee & Chen, *supra* note 194, at 44 tbl.1, 45 tbl.3; Kristen S. Slack et al., *The Complex Interplay of Adverse Childhood Experiences, Race, and Income*, 42 HEALTH & SOC. WORK e24, e28 (2017) (unfortunately this interplay between race and income has long term effects and does not just impact individuals at a young age).

201 See Marilyn Metzler et al., *Adverse Childhood Experiences and Life Opportunities: Shifting the Narrative*, 72 CHILD. & YOUTH SERV. REV. 141, 145 tbl.1 (2016); see also Robert F. Anda et al., *Building a Framework for Global Surveillance of the Public Health Implications of Adverse Childhood Experiences*, 39 AM. J. PREVENTIVE MED. 93, 95 (2010); Michelle Hughes & Whitney Tucker, *Poverty as an Adverse Childhood Experience*, 79 N.C. MED. J. 124, 125 (2018); Howard Steele et al., *Adverse Childhood Experiences, Poverty, and Parenting Stress*, 48 CANADIAN J. BEHAV. SCI. 32, 36 (2016).

202 Hughes & Tucker, *supra* note 201, at 124; see also Anda et al., *supra* note 201, at 95; Metzler et al., *supra* note 201, at 144, 146; Steele et al., *supra* note 201, at 36.

feedback loop,” reinforces those adversities.²⁰³ And given the overrepresentation of black Americans and the poor among juvenile and adult criminals, it is unsurprising that both groups have much higher ACE scores, on average, than the general population.²⁰⁴

The disproportionate concentration of ACEs among the poor and minority groups, particularly black Americans, is an important reason why these groups are disproportionately represented among the incarcerated population. Disproportionate concentration of ACEs in these groups also ensures that they will continue to be disproportionately subject to incarceration and other penal sanctions even if the standard reform package—community sanctions for low-level drug and nonviolent offenses, reduced use of incarceration for repeat offenders, crime redefinition, shorter sentences, increased substance-abuse and mental-health treatment—is adopted in full. Today, black Americans are arrested for serious violent crimes—murder, rape, robbery, aggravated assault—at rates two to four times the rate one would expect given their representation in the total population.²⁰⁵ The elimination of all vestiges of racism from arrest and conviction policies will be insufficient to significantly change these patterns for the simple reason that black Americans disproportionately live in violent neighborhoods and their early life experience includes a much higher load of the toxic stress and trauma associated with high-risk behaviors.²⁰⁶ Until we break the cycle of disadvantage that promotes high-risk behaviors, we cannot avoid a high correlation between disadvantage and crime.

The criminal-justice and corrections community has been slow to recognize the importance of ACEs in producing criminal careers. However, some governments have begun to respond with preventive approaches. A Scottish government report thus urges that “[p]reventing ACEs could provide a significant opportunity to reduce crime in Scotland” and notes that “[s]ome

203 Hughes & Tucker, *supra* note 201, at 124 (reviewing literature); see also Andrea Danese et al., *Adverse Childhood Experiences and Adult Risk Factors for Age-Related Disease: Depression, Inflammation, and Clustering of Metabolic Risk Markers*, 163 ARCHIVES PEDIATRICS & ADOLESCENT MED. 1135, 1140 tbl.3 (2009) (even after controlling for developmental and other risk factors such as low SES, smoking, physical inactivity, and poor diet at thirty-two years of age, childhood poverty, maltreatment and social isolation all predicted a greater number of age-related-disease risks).

204 See Michael T. Baglivio et al., *The Prevalence of Adverse Childhood Experiences (ACE) in the Lives of Juvenile Offenders*, 3 J. JUV. JUST. 1, 2 (2014).

205 See CRIMINAL JUSTICE INFO. SERV., *supra* note 70, at tbl.21A.

206 A disproportionate share of wrongful convictions for violent crime involve black men. See SAMUEL R. GROSS ET AL., NEWKIRK CTR. FOR SCI. & SOC’Y, RACE AND WRONGFUL CONVICTIONS IN THE UNITED STATES I (2017), http://www.law.umich.edu/special/exoneration/Documents/Race_and_Wrongful_Convictions.pdf. But exonerations are sufficiently uncommon that, even were there no racial disparity, the basic pattern of very large disproportion in arrests for serious violent crimes would remain intact.

studies have estimated that preventing ACEs could halve violence perpetration and incarceration.”²⁰⁷

Although we lack evidence on most ACEs for the fathers in our study population, we do have information on two, parental crime and child maltreatment, for the portion of the sample that grew up in St. Joseph County. After regression analysis, child maltreatment was significantly linked with both delinquency arrest and days in confinement²⁰⁸ while parental crime was significantly linked with adult crime.²⁰⁹ As we noted earlier, our findings are entirely consistent with those of other researchers.²¹⁰

Because we had more information about the children of sample fathers, we could estimate the children’s ACE scores. Actual ACE-score calculation relies on self-reporting; because our estimates rely on official sources,²¹¹ they

207 JUSTICE ANALYTICAL SERVS., *supra* note 196, at 1; *see also* SCOTTISH ADVERSE CHILDHOOD EXPERIENCES HUB, NHS HEALTH SCOT., TACKLING THE ATTAINMENT GAP BY PREVENTING AND RESPONDING TO ADVERSE CHILDHOOD EXPERIENCES (ACEs) (2017), <http://www.healthscotland.scot/media/1517/tackling-the-attainment-gap-by-preventing-and-responding-to-adverse-childhood-experiences.pdf>; Bellis et al., *supra* note 172, at 33–37.

208 *See supra* Tables 4 & 5 and accompanying text.

209 *See supra* Table 6 and accompanying text.

210 *See supra* notes 84, 139, 145, 153 and accompanying text.

211 ACE scores are calculated based on responses to the following ten questions:

1. Did a parent or other adult in the household often . . . [s]wear at you, insult you, put you down, or humiliate you? Or [a]ct in a way that made you afraid that you might be physically hurt? . . .
2. Did a parent or other adult in the household often . . . [p]ush, grab, slap, or throw something at you? [O]r [e]ver hit you so hard that you had marks or were injured? . . .
3. Did an adult or person at least 5 years older than you ever . . . [t]ouch or fondle you or have you touch their body in a sexual way? [O]r [t]ry to or actually have oral, anal, or vaginal sex with you? . . .
4. Did you often feel that . . . [n]o one in your family loved you or thought you were important or special? [O]r [y]our family didn’t look out for each other, feel close to each other, or support each other? . . .
5. Did you often . . . feel that . . . [y]ou didn’t have enough to eat, had to wear dirty clothes, and had no one to protect you? [O]r your parents were too drunk or high to take care of you or take you to the doctor if you needed it? . . .
6. Were your parents ever separated or divorced? . . .
7. Was your mother or stepmother: Often pushed, grabbed, slapped, or had something thrown at her? [O]r [s]ometimes or often kicked, bitten, hit with a fist, or hit with something hard? [O]r [e]ver repeatedly hit over at least a few minutes or threatened with a gun or knife? . . .
8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs? . . .
9. Was a household member depressed or mentally ill or did a household member attempt suicide? . . .
10. Did a household member go to prison?

Finding Your Ace Score, NAT’L COUNCIL JUV. & FAM. CT. JUDGES, <https://www.ncjfcj.org/wp-content/uploads/2006/10/Finding-Your-Ace-Score.pdf> (emphasis omitted). Each positive response produces one point. We were forced to extrapolate likely answers to these questions from our official data sources. We scored likely responses to the ACE questions as a 1 if: question 1: the focal child or a (half) sibling in the mother’s household was the subject of a substantiated physical-abuse report; question 2: the focal child was the subject of a substantiated physical-abuse report; question 3: the focal child was the subject of a substantiated sexual-abuse report; question 4: the focal child or a sibling in the mother’s household was the subject of a substantiated abuse or neglect report or in guardianship or the

almost certainly understate most children's actual ACE scores, perhaps substantially.²¹² Nonetheless, 18% of focal children had estimated ACE scores of four or higher; in the Scottish survey cited earlier, an ACE score of four or more was associated with a twenty-fold increase in the likelihood of incarceration.²¹³

In our view, offender records should contain full information on ACEs because ACE profiles should play a role in determining the type of sanctions and treatment offenders receive. It is not easy to reverse the physical and emotional toll of early trauma, but trauma-informed treatment has the best chance of success.²¹⁴ Such treatment is particularly important for juvenile offenders, for whom it is still possible to curtail the accumulation of ACEs and who may be experiencing ongoing adverse experiences.

Prevention is even more important. As with all public-health problems—smoking, contagious diseases, environmental pathogens—an ounce of prevention is worth several pounds of cure. This is particularly true where, as here, “cure” is not actually feasible. Substance abuse, for example, is now viewed by medical experts as a chronic disorder like asthma or hypertension; it can be managed, but it cannot be cured.²¹⁵ Between 40% and 60% of individuals treated for a substance-abuse-disorder relapse,²¹⁶ and those who have abused one or another addictive substance remain vulnerable throughout the life course to other forms of addictive behavior. To rely on shifts in substance-abuse treatment and sentencing policy alone as a means of reducing incarceration is thus akin to relying on adult treatment for nutritional rickets, after the bone loss and bowing induced by the disease are well beyond our treatment capacities.

Studies of prevention strategies have also begun to sketch the type of interventions capable of significantly reducing the risk of substance abuse, delinquency, and crime. Pre- and postnatal visits by trained nurses have

focal child was a runaway; question 5: the focal child or a sibling in the mother's household was the subject of a substantiated neglect report; question 6: the focal child's parents separated and did not marry or reconcile; question 7: the focal child's mother had official reports indicating intimate-partner violence; question 8: the focal child's mother had a history of alcohol or drug abuse or the father had such a history if she lived with the child for at least one year; question 10: the father or mother had been in jail or prison for at least 90 days. We rarely had information relevant to question 9 and were thus forced to ignore it in our computation.

212 See, e.g., Baglivio et al., *supra* note 204 (estimating ACE scores of juvenile offenders using risk-assessment scores); Western, *supra* note 185, at 18 tbl.1 (providing some ACE information based on self-report by recently released adult prisoners).

213 See Bellis et al., *supra* note 172.

214 See Leitch, *supra* note 199; Niki A. Miller & Lisa M. Najavits, *Creating Trauma-Informed Correctional Care: A Balance of Goals and Environment*, 3 EUR. J. PSYCHOTRAUMATOLOGY 1 (2012).

215 See *Drugs, Brains, and Behavior: The Science of Addiction*, NAT'L INST. ON DRUG ABUSE, <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/treatment-recovery> (last visited Mar. 16, 2020).

216 See, e.g., A. Thomas McLellan et al., *Drug Dependence, a Chronic Medical Illness: Implications for Treatment, Insurance, and Outcomes Evaluation*, 284 JAMA 1689, 1689 (2000).

repeatedly been associated with marked reductions not only in prenatal exposure to addictive substances, but postbirth reductions in child maltreatment, conduct disorders, substance abuse, and delinquency arrests.²¹⁷ Several studies have established that high-quality preschool programs are associated with a significant reduction in delinquency arrests and convictions as well as better educational attainment and higher adult earnings.²¹⁸ Some types of parent training²¹⁹ are also consistently associated with significant reductions in antisocial behavior, including delinquency. Programs aimed at promoting more reflective and careful decisionmaking by disadvantaged youth have produced positive results.²²⁰ So have summer youth-employment programs.²²¹

The states need to invest much more heavily in these proven, cost-effective programs. They also need to develop a range of new preventive demonstration projects. Just as with substance-abuse treatment, there is much that we do not know and that it will take years of comparative research to learn.

217 See, e.g., Ted R. Miller, *Projected Outcome of Nurse-Family Partnership Home Visitation During 1996–2013, USA*, 16 PREVENTION SCI. 765, 773 (2015); David Olds et al., *Long-Term Effects of Nurse Home Visitation on Children’s Criminal and Antisocial Behavior: 15-Year Follow-Up of a Randomized Controlled Trial*, 280 JAMA 1238, 1241 (1998).

218 See, e.g., Alison Giovanelli et al., *African-American Males in Chicago: Pathways from Early Childhood Intervention to Reduced Violence*, 62 J. ADOLESCENT HEALTH 80, 84 (2018); James J. Heckman et al., *The Rate of Return to the HighScope Perry Preschool Program*, 94 J. PUB. ECON. 114, 119 tbl.3 (2009) (HighScope Perry Preschool Program participation was associated with reduced crime by male participants); Miller, *supra* note 217, at 773; Olds et al., *supra* note 217, at 1241; Suh-Ruu Ou & Arthur J. Reynolds, *Childhood Predictors of Young Adult Male Crime*, 32 CHILD. & YOUTH SERV. REV. 1097, 1105 (2010); Barry A.B. White et al., *Predicting Adult Criminal Behavior from Juvenile Delinquency: Ex-Ante vs. Ex-Post Benefits of Early Intervention*, 15 ADVANCES LIFE COURSE RES. 161, 161 (2010). But see Frances A. Campbell et al., *Early Childhood Education: Young Adult Outcomes from the Abecedarian Project*, 6 APPLIED DEVELOPMENTAL SCI. 42, 52 (2002) (finding significantly lower marijuana use but no impact on self-reported crime from participation in Abecedarian Project).

219 See, e.g., Marion S. Forgatch et al., *Testing the Oregon Delinquency Model with 9-Year Follow-Up of the Oregon Divorce Study*, 21 DEV. & PSYCHOPATHOLOGY 637, 640 (2009); Kevin P. Haggerty et al., *A Randomized Trial of Parents Who Care: Effects on Key Outcomes at 24-Month Follow-Up*, 8 PREVENTION SCI. 249, 250–51 (2007); Alex R. Piquero et al., *A Meta-Analysis Update on the Effects of Early Family/Parent Training Programs on Antisocial Behavior and Delinquency*, 12 J. EXPERIMENTAL CRIMINOLOGY 229, 230 (2016) (reviewing studies); Richard L. Spoth et al., *Reducing Adolescents’ Aggressive and Hostile Behaviors: Randomized Trial Effects of a Brief Family Intervention 4 Years Past Baseline*, 154 ARCHIVES PEDIATRICS & ADOLESCENT MED. 1248, 1248 (2000) (Strengthening Families Program).

220 See Sara B. Heller et al., *Thinking, Fast and Slow? Some Field Experiments to Reduce Crime and Dropout in Chicago 1–4* (Nat’l Bureau of Econ. Research, Working Paper No. 21178, 2015), <https://www.nber.org/papers/w21178.pdf>.

221 See ALICIA SASSER MODESTINO, METROPOLITAN POL’Y PROGRAM, BROOKINGS INST., HOW CAN SUMMER JOBS REDUCE CRIME AMONG YOUTH? AN EVALUATION OF THE BOSTON SUMMER YOUTH EMPLOYMENT PROGRAM 2 (2017); Alexander Gelber et al., *The Effects of Youth Employment: Evidence from New York City Summer Youth Employment Program Lotteries* (Nat’l Bureau of Econ. Research, Working Paper No. 20810, 2014), <https://www.nber.org/papers/w20810.pdf>.

Structural changes in corrections and policing that focus on public-health concerns will also be necessary.

A full survey of steps necessary to implement an effective, data-driven, public-health approach to crime is well beyond the scope of this Article. But our data demonstrate that such an approach is imperative if we hope to achieve real reductions in criminal offending and the other forms of high-risk behavior with which it is associated. As long as the pathways to crime are filled with disadvantaged youth, the invisible prison will remain.

CONCLUSION

Our findings show the incarcerative state in action. They also show the extraordinarily powerful links between substance abuse and delinquency, crime, incarceration, and all of the problems—for the offender and his family—that flow from these behaviors and consequences. They show the inadequacy of a criminalization model for treating substance abuse. They also show the inadequacy of the current, standard model of criminal justice reform. Finally, they demonstrate, vividly, the need for a new, preventive model of criminal justice reform that recognizes crime as a public-health problem as well as a public-safety concern.

In St. Joseph County, Indiana, policymakers are currently moving in the wrong direction. Services for juveniles have not been expanded, but curtailed.²²² This short-sighted response will surely add new locks and bars to the invisible prison that already surrounds St. Joseph County's disadvantaged, at-risk youth.

²²² See Ted Booker, *St. Joseph County Juvenile Justice Center Youth Programs in Jeopardy: Council Supports Half of Funding Request*, S. BEND TRIB. (Oct. 4, 2017), https://www.southbendtribune.com/news/local/st-joseph-county-juvenile-justice-center-youth-programs-in-jeopardy/article_e1f9053d-3786-50da-bfab-6e46666ca527.html.

APPENDIX

TABLE A1: FATHERS CONVICTED OF DRUG CRIME
VS. OTHER FATHERS (N = 602)

Variable	B	S.E.	Wald	Significance	Odds Ratio
Fdrugalc	4.832	.729	43.968	.000	125.504
IPVanyF	-.770	.384	4.011	.045	.463
Father is white	-.900	.331	7.385	.007	.407
PWCgrossF	-.004	.001	14.469	.000	.996
Constant	-3.861	.745	26.829	.000	.021

Note: $R^2 = .304-.505$

TABLE A2: FATHERS CONVICTED OF PROPERTY CRIME
VS. OTHER FATHERS (N = 602)

Variable	B	S.E.	Wald	Significance	Odds Ratio
Fdrugalc	.975	.280	12.084	.001	2.651
Mcrime	1.276	.505	6.384	.012	3.582
Father is white	.607	.297	4.190	.041	1.835
PWCgrossF	-.004	.001	13.372	.000	.996
Mdrugalc	.645	.317	4.146	.042	1.906
Constant	-2.104	.328	41.241	.000	.122

Note: $R^2 = .083-.165$

TABLE A3:
FATHERS CONVICTED OF VIOLENT CRIME
VS. OTHER FATHERS (N = 602)

Variable	B	S.E.	Wald	Significance	Odds Ratio
Fdrugalc	.682	.247	7.613	.006	1.977
IPVanyF	1.399	.285	24.161	.000	4.052
MAA	.543	.254	4.570	.033	1.722
PWCgrossF	-.005	.001	26.913	.000	.995
Constant	-1.333	.334	15.897	.000	.264

Note: $R^2 = .137-.206$