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Accentuating The Positive Or Eliminating The Negative? Paternal Incarceration And Caregiver-Child Relationship Quality

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CRIMINOLOGY

PARENTS BEHIND BARS | SECOND IN A SERIES

ACCENTUATING THE POSITIVE OR ELIMINATING THE NEGATIVE?

PATERNAL INCARCERATION AND CAREGIVER-CHILD RELATIONSHIP QUALITY

SARA WAKEFIELD*

Mounting evidence links paternal incarceration to harmful outcomes for the children of incarcerated fathers. These findings hold across a host of important behavioral, developmental, and attainment outcomes, including mental health and behavioral problems, substance use, educational attainment, and social inequality. The process by which paternal incarceration causes poor outcomes is much less clear, however. Declines in quality parenting by the partners of former inmates represent one important domain where theory would suggest important effects but where the research evidence lags far behind. This Article analyzes the effects of paternal incarceration on parenting quality and finds that paternal incarceration has no effect on positive parenting behaviors but significantly increases problematic parenting behaviors, including negative conflict resolution tactics and physical abuse. The implications of the results for childhood well-being and development are also discussed.

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INTRODUCTION

While prison population growth in the United States has leveled off (and is even declining in some states),¹ the legacy of mass incarceration and its so-called collateral consequences remain the focus of significant research attention. The consequences of mass imprisonment radiate far beyond the prison or its current inmate population. Research has shown effects of imprisonment and mass incarceration on the later life outcomes of former inmates in domains as varied as employment, marriage, physical and mental health, voting behavior, and social inequality.² Importantly, the pains of imprisonment are not limited to inmates; those who have never served time but are connected to current and former inmates through significant social ties often experience harm as well.³ Among the “legal bystanders” influenced by mass imprisonment are the children of inmates.⁴

¹ See E. ANN CARSON & DANIELA GOLINELLI, BUREAU OF JUSTICE STATISTICS, U.S. DEP’T OF JUSTICE, NCJ 243920, PRISONERS IN 2012: TRENDS IN ADMISSIONS AND RELEASES, 1991–2012 (Dec. 19, 2013), available at www.bjs.gov/index.cfm?ty=pbdetail&iid=4842, archived at <http://perma.cc/95XM-R6AE>.

² See Sara Wakefield & Christopher Uggen, *Incarceration and Stratification*, 36 ANN. REV. SOC. 387, 394–99 (2010).

³ See generally SARA WAKEFIELD & CHRISTOPHER WILDEMAN, CHILDREN OF THE PRISON BOOM: MASS INCARCERATION AND THE FUTURE OF AMERICAN INEQUALITY (2014) (arguing that incarceration’s effects on social inequality are larger when estimated for children of inmates than when estimated for inmates themselves).

⁴ See Megan Comfort, *Punishment Beyond the Legal Offender*, 3 ANN. REV. L. & SOC. SCI. 271, 275–77 (2007). Comfort’s use of the “legal bystander” metaphor to describe the

In the United States, more than 2.5 million minor children have a parent currently incarcerated, and the proportion of children who have ever experienced parental incarceration is much larger—especially since the dawn of the prison boom in the United States in the 1970s.⁵

The children of incarcerated parents represent perhaps the most vulnerable and consequential group influenced by the prison boom in the United States. These children are far more disadvantaged relative to the average child, even prior to the imprisonment of their parents, and parental imprisonment represents yet another potentially harmful event for an already vulnerable population. Parental imprisonment may be highly consequential because childhood events structure life pathways long after they occur⁶—as a result, the experiences of the children of the prison boom are important for social life and public policy even if prison populations decline. In this Article, I focus on the relationship between paternal incarceration and the quality of the relationship between the child and the caregiver who is not incarcerated. In so doing, I offer a more direct measure of a theoretically relevant mechanism through which a number of scholars expect paternal incarceration to influence children's later outcomes—yet, while many studies emphasize caregiver stress and parenting skills, few quantitative studies have directly measured this facet of family life for children of incarcerated parents. The results presented here suggest that the literature on children of incarcerated parents may have missed an important determinant of adult life chances for the children of incarcerated parents. Consistent with qualitative work on parental incarceration, these results show that many of the harmful effects of paternal incarceration may flow from declines in the parenting quality of caregivers of children of incarcerated parents.

partners and children of inmates is particularly compelling. *Id.* at 275–76.

⁵ For estimates on this and other demographic effects of mass incarceration, see BECKY PETTIT, *INVISIBLE MEN: MASS INCARCERATION AND THE MYTH OF BLACK PROGRESS* (2012). For estimates on the likelihood of experiencing parental incarceration, see Christopher Wildeman, *Parental Imprisonment, the Prison Boom, and the Concentration of Childhood Disadvantage*, 46 *DEMOGRAPHY* 265, 270–76.

⁶ See generally Holly Foster & John Hagan, *Incarceration and Intergenerational Social Exclusion*, 54 *SOC. PROBS.* 399 (2007) (providing a compelling analysis of the longer-term potential outcomes of experiencing parental incarceration during childhood).

I. THE EFFECTS OF PATERNAL INCARCERATION ON CHILDREN

Research on parental incarceration, especially the incarceration of a father, shows harmful outcomes.⁷ Modest but consistently harmful effects of paternal incarceration are evident across a broad range of outcomes, including mental health and behavioral problems, substance use, educational attainment, and social isolation and inequality, to name just a few. A sampling of studies on paternal incarceration suggests that we might generally agree that it is harmful for children⁸—yet theoretically

⁷ For empirical work and meta-analytic reviews on paternal incarceration effects, see Wakefield & Uggen, *supra* note 2, at 393–99. For father–child contact outcomes, see Amanda Geller, *Paternal Incarceration and Father–Child Contact in Fragile Families*, 75 J. MARRIAGE & FAM. 1288, 1296–99 (2013). For child development outcomes, see Amanda Geller et al., *Beyond Absenteeism: Father Incarceration and Its Effects on Child Development*, 49 DEMOGRAPHY 49, 63–68 (2012). For educational outcomes, see John Hagan & Holly Foster, *Intergenerational Educational Effects of Mass Imprisonment in America*, 85 SOC. EDUC. 259, 261–79 (2012). For health outcomes, see Michael E. Roetger & Jason D. Boardman, *Parental Incarceration and Gender-Based Risks for Increased Body Mass Index: Evidence from the National Longitudinal Study of Adolescent Health in the United States*, 175 AM. J. EPIDEMIOLOGY 636, 642–43 (2012). For evidence regarding racial differences in incarceration’s effects on maintaining contact with children, see Raymond R. Swisher & Maureen R. Waller, *Confining Fatherhood: Incarceration and Paternal Involvement Among Nonresident White, African American, and Latino Fathers*, 29 J. FAM. ISSUES 1067, 1074–77 (2008). For evidence on racial inequality in childhood behavioral problems, see Sara Wakefield & Christopher Wildeman, *Mass Imprisonment and Racial Disparities in Childhood Behavioral Problems*, 10 CRIMINOLOGY & PUB. POL’Y, 791, 803 (2011). See generally Joseph Murray et al., *Children’s Anti-social Behavior, Mental Health, Drug Use, and Educational Performance After Parental Incarceration: A Systematic Review and Meta-analysis*, 138 PSYCHOL. BULL. 175 (2012) (conducting a meta-analytic review of paternal incarceration effects across a range of outcomes). I do not review the research results on the effects of maternal incarceration here because they are beyond the scope of this Article. The results for maternal incarceration are much less uniform and knowledge in the area is hampered by significant data limitations. For analysis showing mostly null effects of maternal incarceration, see Rosa Minhyo Cho, *The Impact of Maternal Incarceration on Children’s Probability of Grade Retention*, 65 J. URB. ECON. 11, 18–20 (2009); Christopher Wildeman & Kristin Turney, *Positive, Negative, or Null? The Effects of Maternal Incarceration on Children’s Behavioral Problems*, DEMOGRAPHY (forthcoming). For work suggesting harmful effects, see generally JOYCE A. ARDITTI, PARENTAL INCARCERATION AND THE FAMILY (2012) (arguing for especially harmful effects of incarcerated mothers); John Hagan & Holly Foster, *Children of the American Prison Generation: Student and School Spillover Effects of Incarcerating Mothers*, 46 LAW & SOC’Y REV. 37 (2012) (showing that maternal incarceration has stronger effects for worsening educational outcomes). In short, the literature on maternal incarceration is mixed with regard to the nature and direction of the observed effects.

⁸ See *supra* note 7 for a survey of the literature.

important factors linking paternal incarceration to harm are often unclear or unmeasured in large surveys.

To take but one example, consider the relationship between parental incarceration and mental health and behavioral problems. Research on this question represents arguably the most convincing evidence of the harms of paternal incarceration for children. The harmful effects of paternal incarceration for mental health and behavioral problems hold across time, multiple datasets, focal populations, age of the children studied, various outcome measures, a variety of included control variables, and increasingly rigorous analytic techniques.⁹ The evidence is very strong that paternal incarceration causes increases in mental health and behavioral problems for children,¹⁰ but the process through which this occurs is much less clear. The link between paternal incarceration and later mental health and behavioral problems for children is often attributed to some combination of financial and caregiver stress,¹¹ but several links in the causal chain remain unmeasured in the research literature. For example, it is unclear how financial or caregiver stress in and of itself causes mental health and behavioral problems in children. If, however, stress for caregivers brought on by paternal incarceration is accompanied by declines in parenting quality as some researchers argue, we might expect to see a corresponding increase in mental health and behavioral problems among children.¹² Stress and declines in parenting quality are commonly employed in theoretical arguments about paternal incarceration, but relatively few studies have interrogated this hypothesis directly.¹³

II. PARENTAL INCARCERATION AND CAREGIVER–CHILD RELATIONSHIPS

Outside the context of parental incarceration, it is clear that parenting behavior is important for children's current and later life outcomes.¹⁴ As

⁹ For more detailed information and a meta-analytic review of this, see Murray et al., *supra* note 7, at 186–87.

¹⁰ See *supra* note 7 for a survey of the literature.

¹¹ For data linking financial insecurity resulting from incarceration to increases in caregiver stress, see WAKEFIELD & WILDEMAN, *supra* note 3, at 51–52, 61–64.

¹² For theoretical arguments, see *id.*; Geller, *supra* note 7, at 1300; Christopher Wildeman et al., *Despair by Association? The Mental Health of Mothers with Children by Recently Incarcerated Fathers*, 77 AM. SOC. REV. 216, 234 (2012).

¹³ See WAKEFIELD & WILDEMAN, *supra* note 3, at 51–52, 61–64.

¹⁴ See generally Paul R. Amato & Frieda Fowler, *Parenting Practices, Child Adjustment, and Family Diversity*, 64 J. MARRIAGE & FAM. 703 (2002) (arguing that a core of common parenting practices is linked with positive outcomes for children across diverse family

one example, ineffective parenting styles have long been linked to delinquency and poor status attainment outcomes for children.¹⁵ More serious parenting deficits, such as those involving serious abuse or neglect, are likely to affect adult attainment outcomes as well.¹⁶

Against this backdrop of broad interest in parenting behaviors, early qualitative research on parental incarceration highlighted the role of caregivers as an important feature conditioning paternal incarceration effects. Several qualitative studies, for example, show that financial stress brought on by paternal incarceration plays a direct role in increasing caregiver stress.¹⁷ Moreover, qualitative interviews with children of incarcerated parents show that, like other disadvantaged children, this population tends to be well aware of the financial stresses facing their families.¹⁸ Indeed, in qualitative interviews, children of incarcerated parents often link financial stress for their caregivers to the quality and stability of their interactions with them.¹⁹ While caregiver-child relationships are central to many studies of paternal incarceration in qualitative work, arguments along these lines tend to exist in the

contexts).

¹⁵ See Machteld Hoeve et al., *Trajectories of Delinquency and Parenting Styles*, 36 J. ABNORMAL CHILD PSYCHOL. 223, 228–31 (2008) (showing that neglectful parenting is related to higher rates of delinquency).

¹⁶ See generally Ruth Gilbert et al., *Burdens and Consequences of Child Maltreatment in High-Income Countries*, 373 LANCET 68 (2009) (showing the myriad harmful effects of maltreatment during childhood on child and adult outcomes).

¹⁷ See DONALD BRAMAN, DOING TIME ON THE OUTSIDE: INCARCERATION AND FAMILY LIFE IN URBAN AMERICA 134 (2004); MEGAN COMFORT, DOING TIME TOGETHER: LOVE AND FAMILY IN THE SHADOW OF THE PRISON 89 (2008); Olga Grinstead et al., *The Financial Costs of Maintaining Relationships with Incarcerated African American Men: A Survey of Women Prison Visitors*, 6 J. AFR. AM. MEN 59, 60 (2001); Ande Nesmith & Ebony Ruhland, *Children of Incarcerated Parents: Challenges and Resiliency, in Their Own Words*, 30 CHILD. & YOUTH SERVS. REV. 1119, 1124, 1127 (2008); Jillian J. Turnanovic et al., *The Collateral Consequences of Incarceration Revisited: A Qualitative Analysis of the Effects on Caregivers of Children of Incarcerated Parents*, 50 CRIMINOLOGY 913, 930–31 (2012).

¹⁸ For an analysis focused on children of incarcerated parents and awareness of adult caregiver stressors, see Nesmith & Ruhland, *supra* note 17, at 1124. For a similar point regarding disadvantaged children more generally, see ANNETTE LAREAU, UNEQUAL CHILDHOODS: CLASS, RACE, AND FAMILY LIFE (2003) (discussing differences in parenting practices by class background and how they tend to reproduce the class structure over time; and highlighting the degree to which impoverished children are aware of their family finances, how much food and rent cost, and whether or not money is tight—indicating that children of incarcerated parents have much in common with the larger population of economically-disadvantaged children).

¹⁹ See WAKEFIELD & WILDEMAN, *supra* note 3, at 62–63.

background of quantitative research studies as theoretical motivation, rather than as a direct measure under observation.²⁰ Similarly, though a number of quantitative studies have examined the effects of incarceration on the partners of inmates, finding increases in stress, maternal depression, and other difficulties,²¹ few of these same studies link the partner outcomes of interest to changes in parent–child relationships.²²

A recent exception to the dearth of quantitative work on parenting quality following paternal incarceration can be found in a particularly rigorous study conducted by Kristin Turney and Christopher Wildeman.²³ Using a dataset widely employed in the study of parental incarceration, the Fragile Families and Child Wellbeing (FFCW) study, the authors found that paternal incarceration is inconsistently linked to maternal parenting behaviors. The FFCW study found no consistent evidence that paternal incarceration changed maternal parenting behaviors, nor did it find in more rigorous models that maternal parenting stress increased.²⁴ These findings stand in stark contrast to qualitative work detailing poor parenting outcomes and higher stress levels for the partners of incarcerated parents. Indeed, some of these works detail especially harrowing post-parental incarceration experiences for children that involve high levels of conflict and, for some, extreme abuse in their homes.²⁵

One of the difficulties in reconciling these few studies of parenting quality following paternal incarceration is that it is unclear whether the differences in findings result from differences in the measure of parenting quality or from variations in the methodological approach employed. These issues of interpretation are quite possibly related. Qualitative studies tend to highlight negative (often extremely negative) parenting behaviors among the caregivers of the children of incarcerated parents.²⁶ In contrast, the

²⁰ See *id.* at 43–70.

²¹ See Wildeman et al., *supra* note 12, at 229–34.

²² For an exception, see Kristen Turney & Christopher Wildeman, *Redefining Relationships: Explaining the Countervailing Consequences of Paternal Incarceration for Parenting*, 78 AM. SOC. REV. 949 (2013).

²³ *Id.*

²⁴ *Id.* at 970–71.

²⁵ See generally JANE A. SIEGEL, *DISRUPTED CHILDHOODS: CHILDREN OF WOMEN IN PRISON* (2011) (highlighting extreme disadvantage and abuse among children of incarcerated mothers both before and after imprisonment). See also PEGGY C. GIORDANO, *LEGACIES OF CRIME: A FOLLOW-UP OF THE CHILDREN OF HIGHLY DELINQUENT GIRLS AND BOYS* (2010) (showing histories of extreme disadvantage prior to imprisonment).

²⁶ See generally SIEGEL, *supra* note 25 (describing throughout the often negative behaviors of incarcerated mothers prior to imprisonment).

Turney and Wildeman study is focused on largely positive parenting behaviors such as engagement and cooperation with partners and average effects for a large population of children. However, both groups of scholars, regardless of method, are increasingly cognizant of substantial heterogeneity in the effects of paternal incarceration on partners and children.²⁷ While early work on paternal incarceration describing the average effect of incarceration across a broad array of outcomes is invaluable as a starting point,²⁸ current research is much more focused on the protective, null, and harmful effects of paternal incarceration.²⁹

Given this backdrop, it is plausible that paternal incarceration may have both positive and negative effects on parenting quality, conditioned by characteristics of the family, pre-incarceration parenting behaviors, or a host of other considerations. To complicate matters further, paternal incarceration may increase both positive parenting behaviors (such as engagement) while also contributing to negative parenting behaviors (such as harmful conflict resolution strategies) through parental stress or lack of social supports.³⁰ Finally, the difference in results may also arise from significant selection bias in the incarcerated parent population. The null findings in the Turney and Wildeman study,³¹ coupled with qualitative work showing poor pre-parental incarceration circumstances for children,³² suggest there may be no additional effect of paternal incarceration on parenting quality, once prior levels of parenting quality are controlled.

The analysis that follows employs longitudinal survey data to assess the role paternal incarceration may play in changes in parenting quality among the non-incarcerated caregivers. The analysis adds to knowledge in

²⁷ See *id.* at 23–96; Kristin Turney & Christopher Wildeman, Detrimental for Some? The Heterogeneous Effects of Maternal Incarceration for Childhood Wellbeing (Jan. 29, 2014) (unpublished manuscript), available at <http://crrw.princeton.edu/workingpapers/WP14-02-FF.pdf> (showing an analysis of heterogeneity of effects of maternal incarceration and throughout discussing differential effects of parental incarceration), archived at <http://perma.cc/P86B-QUKC>.

²⁸ Average effects at the individual level are also essential for estimating aggregate-level effects of incarceration on social inequality. See WAKEFIELD & WILDEMAN, *supra* note 3, at 19–24 (analyzing children of incarcerated fathers).

²⁹ This emphasis is represented in the title of the Turney and Wildeman piece discussed here, *Redefining Relationships: Explaining the Countervailing Consequences of Paternal Incarceration for Parenting*. Turney & Wildeman, *supra* note 22.

³⁰ See generally BRAMAN, *supra* note 17 (discussing at length the decline in social support associated with familial incarceration).

³¹ See Turney & Wildeman, *supra* note 22.

³² SIEGEL, *supra* note 25, at 23–81.

a theoretically critical but sorely under-researched area by analyzing the sorts of parenting behaviors highlighted in qualitative work on parental incarceration. Specifically, while I include more conventional measures of positive parenting behavior, I also examine negative aspects of parenting such as poor conflict resolution tactics and abusive behavior. Taken together, the results are consistent with earlier qualitative work and highlight increases in troubling parenting behaviors with no corresponding increases in positive parenting behaviors following the incarceration of a father.

III. DATA, MEASURES, AND ANALYTIC STRATEGY

A. THE PROJECT ON HUMAN DEVELOPMENT IN CHICAGO NEIGHBORHOODS

This Article's analysis uses data from the first and second waves of the Project on Human Development in Chicago Neighborhoods (PHDCN).³³ The PHDCN is a longitudinal survey of young children, adolescents, and their primary caregivers. The PHDCN followed roughly 6,000 children, adolescents, and young adults in Chicago over three waves of data collection from 1994 to 2002. The analysis in this Article is restricted to children aged three to fifteen at the time of the first wave. It focuses on parenting behaviors following the incarceration of a father as measured at the second wave.³⁴

The primary strengths of the PHDCN are that it offers repeated measures of the independent and dependent variables, a relatively large sample of children at high risk of paternal incarceration, and high quality measures of caregiver-child interactions. The use of repeated measures of the dependent variable is especially important because the factors that predict paternal incarceration likely also predict poor parenting behaviors. By including a prior measure of the dependent variable, I minimize the likelihood that pre-incarceration problems between caregiver and child will be erroneously attributed to the recent incarceration of a father.

³³ PROJECT ON HUMAN DEVELOPMENT IN CHICAGO NEIGHBORHOODS, *available at* <http://www.icpsr.umich.edu/icpsrweb/PHDCN/daa.jsp>, *archived at* <http://perma.cc/2N53-7DWH>.

³⁴ Infants and young adults (age eighteen at Wave 1) are excluded from the analysis because the measures of parent-child interactions and home environment are either missing or not identical between the Wave 1 and 2 surveys for this group.

B. MEASURES

Paternal Incarceration. The main explanatory variable analyzed in all models is paternal incarceration. Though the PHDCN also collects information on arrest and incarceration of mothers, the small number of children whose mothers are incarcerated prevents me from performing a multivariate analysis. At Wave 1, the PHDCN collected arrest, conviction, and incarceration information on all family members of the subject child. Wave 2 reproduced these measures by asking about family members who had contact with the criminal justice system since the Wave 1 survey. The parental incarceration measure is a dichotomous variable indicating that the subject child's father went to jail or prison at some point since the Wave 1 survey.³⁵

Parenting Quality and Home Environment. The analysis that follows uses several measures of parenting quality, all of which are drawn from the Conflict Tactics Between Caregiver and Child Scale (CTS) and the Home Observation for Measurement of the Environment (HOME).³⁶

HOME. The HOME measures rely on survey questions and interviewer observations to construct a series of scales measuring the interactions between the caregiver and child.³⁷ Because the focus of this Article is on parenting quality and caregiver-child interactions, I use only the Emotional and Verbal Responsivity and Emotional Climate items in the HOME measure. The scales are described briefly below and in Table 1.

Emotional and Verbal Responsivity. An index recording interviewer observations of parent-child interactions during the survey. The items are focused on positive parent-child interactions, such as whether or not the caregiver speaks to the child, caresses/kisses/cuddles the child, responds positively to interviewer praise of the child, encourages the child to contribute, and a subset of items that adjust for whether or not the caregiver expresses ideas freely, understands the questions, and initiates verbal exchanges during the interview.

³⁵ Unfortunately, the PHDCN does not include information on the length of sentence, so I am unable to distinguish parents who spent a few days in jail from those who were sentenced to long prison terms.

³⁶ The adapted version of HOME is drawn from Richard Elardo et al., *The Relation of Infants' Home Environments to Mental Test Performance from Six to Thirty-Six Months: A Longitudinal Analysis*, 46 CHILD DEV. 71 (1975).

³⁷ The HOME instrument also includes observations of the interior and exterior of the home where the interview took place (for example, whether or not it is dark, crowded, or noisy), but these measures are not consistently linked to paternal incarceration so they are not presented here. Tables available from the author upon request.

Emotional Climate. A subset of the above scale, focused only on caregiver–child interactions.

CTS. The CTS is a series of items measuring how caregivers and children negotiate conflict.³⁸ The items are anchored to events within the last year, and measure both positive conflict resolution strategies as well as negative (both physical and nonphysical) interactions. The CTS was broken up into three measures, described below and in Table 1.

Positive Conflict Tactics. A series of items measuring positive conflict resolution strategies, including frequency of discussing issues calmly, getting more information to resolve disputes, or involving others to help resolve problems or offer support.

Negative, Nonphysical Conflict Strategies. A series of items measuring negative but nonphysical conflict strategies, including insulting or swearing at a child, stomping out of the room, crying, threatening, or doing something out of spite as a result of the dispute.

Negative, Physical Conflict Resolution Tactics. A series of items measuring negative physical conflict resolution strategies. The items range from less serious forms of physical conflict (throwing something at the child, slapping the child, or grabbing the child) to very serious physical violence (burning or scalding the child, kicking, biting, or beating the child).

Control Variables. In addition to the paternal incarceration measure, all models include a number of demographic controls that are likely related to both paternal incarceration and parenting quality. These are briefly described below and in Table 1.

Child Age. The PHDCN data are especially useful since they include longitudinal data on multiple age cohorts. It is likely, however, that some outcomes are more relevant for children of particular ages. All models therefore include a continuous measure of the child’s age in years.

Primary Caregiver Age. Younger parents may be less experienced or more likely to engage in negative parenting practices, so all models include a continuous measure of the primary caregiver’s age in years.

Race. Race and ethnicity are strong predictors of the likelihood of experiencing paternal imprisonment, so all models include dichotomous indicators of race and ethnicity (White, Hispanic, and Other Race). Black

³⁸ The CTS for Caregivers and Child is adapted from a Conflict Tactics Scale for Partners widely used in the research literature on intimate partner violence. See Murray A. Straus, *Measuring Intrafamily Conflict and Violence: The Conflict Tactics (CT) Scales*, 41 J. MARRIAGE & FAM. 75 (1979).

race is the omitted category; estimates for White, Hispanic, and Other Race, therefore, are interpreted relative to the effect for Blacks.

Child Gender. Parenting behaviors, both positive and negative, may differ based on the gender of the child so all models include a dichotomous indicator of gender (where male = 1).³⁹

Socioeconomic Status. Because poverty and socioeconomic status (SES) are so tightly linked to both paternal incarceration and parenting behaviors,⁴⁰ I include socioeconomic status measures of the subject child's primary caregiver. SES is measured with a composite index incorporating the educational attainment (categorical, ranging from less than high school or B.A. degree or more), salary (categorical, with seven income categories up to \$55,000) and occupational status (continuous) of the primary caregiver.⁴¹

Primary Caregiver and Subject Child Relationship. Much of the research on parental incarceration and children concerns the impact of incarceration on household changes for children.⁴² Though much of this research is focused on incarcerated mothers,⁴³ children whose fathers are incarcerated may be more likely to be cared for by people who are not their biological parents⁴⁴ or are not related to them. I therefore include a measure of the relationship between the child and her or his caregiver, indicating whether the caregiver is the biological mother of the child.

Primary Caregiver Relationship Status. Primary caregivers who are unmarried or do not have a partner may be subject to greater stress than those who are parenting with a partner. All models include a dichotomous indicator of primary caregiver relationship status (where single=1).

³⁹ The PHDCN survey measures gender as a binary variable. Non-gender, transgender, or other are not available options in the survey.

⁴⁰ Wildeman, *supra* note 5, at 273–74.

⁴¹ Alternate measures of SES using component parts of the SES composite and others, including household income, receipt of public assistance in the past tax year, and salary do not change the results presented here. I present streamlined models here for ease of interpretation but additional analyses are available upon request.

⁴² See, e.g., Elizabeth I. Johnson & Jane Waldfogel, *Parental Incarceration: Recent Trends and Implications for Child Welfare*, 76 SOC. SERV. REV. 460, 472 (2002).

⁴³ *Id.*

⁴⁴ See BUREAU OF JUSTICE STATISTICS, U.S. DEP'T. OF JUSTICE, NCJ 222984, PARENTS IN PRISON AND THEIR MINOR CHILDREN 5 tbl.8.

Table 1
Descriptive Statistics

Key Dependent Variables	Full sample (N=3,570)		Range
	Mean	St. Dev.	
Positive Parent–Child Interactions			
Positive Conflict Resolution (CTS)	1.60	.93	0–3
Emotional and Verbal Responsivity (HOME)	8.74	2.59	0–12
Emotional Climate (HOME)	4.19	1.24	0–7
Negative Parent–Child Interactions			
Negative Conflict Resolution (CTS)	.87	1.24	0–5
Physical Conflict Resolution (CTS)	.84	1.23	0–7
Control Variables			
Race			
White	.14		
Black	.35		
Hispanic	.47		
Other Race	.04		
Child Age	10.67	4.20	4–20
Child Male	.50		
Primary Caregiver Age	35.7	8.48	15–82
Primary Caregiver Is Biological Mother	.87		
Primary Caregiver Is Single	.35		
SES Composite	-.23	1.40	-3–4
Paternal Incarceration Since Wave 1	.03		

Source: Project on Human Development in Chicago Neighborhoods (PHDCN), Cohorts 3–15

C. ANALYTIC STRATEGY

Lagged Dependent Variable Models. The central challenge of the analysis that follows is that assignment to prison is nonrandom. Entry into prison is predicted by many factors (age, race, income, employment status,

low self-control, broken or weak social bonds, etc.), most of which are likely causally related to poor parenting practices.⁴⁵

A simple OLS regression analysis of parental incarceration and parenting quality is inappropriate for a number of reasons. First, OLS regression using cross-sectional survey data suffers from the fact that causal ordering of parenting quality and parental incarceration is unclear. Second, many of the factors that predict parental incarceration are also likely to affect parenting quality of caregivers and later outcomes for children. OLS regression approaches may include controls for such factors, such as age, gender, race, employment, or social class. However, important variables may be omitted (or unmeasured in the survey data), and this omission can seriously bias the estimates of incarceration effects.

To take advantage of the longitudinal nature of the PHDCN data, as well as to adjust for factors that predict both parental incarceration and parenting practices, I estimate lagged dependent variable models that analyze changes in parenting quality that are associated with parental imprisonment. By including a measure of parenting quality from the first wave of the survey, prior to paternal imprisonment, or a “lagged” dependent variable, this approach reduces the influence of stable factors that may be driving both processes (though more dynamic factors related to imprisonment and parenting remain uncontrolled in the model and must be addressed with the use of control variables for socioeconomic status and the like). The approach conceives of parenting practices at Wave 2 as both a function of parenting at Time 1 as well as influenced by events that have occurred since Time 1 (e.g., having a father incarcerated). This lagged dependent variable approach represents a substantial advance over covariate adjustment alone and allows for a stronger test of incarceration effects on children. The approach also firmly establishes temporal sequencing of parental incarceration and parenting outcomes by analyzing changes in parenting rather than measuring parenting practices at one point in time.⁴⁶

⁴⁵ Wakefield & Uggen, *supra* note 2, 390–93.

⁴⁶ Lagged dependent variable models are the most intuitive results to understand but are not without problems. As a sensitivity analysis, I also estimated propensity score models and the results are identical to those presented in the main text of this Article. Interested readers may consult the supplementary Appendix for a description of propensity score models generally and the estimates produced from them. In addition, because the data are overdispersed for negative parenting behaviors (i.e., a large percentage of caregivers reported no negative parenting behaviors), I estimated negative binomial regression models (not presented here, available from author). In the negative binomial specification, all statistically significant variables remained so and none of the substantive conclusions

IV. RESULTS

Table 2 presents full model results of the influence of paternal incarceration on the parenting quality of caregivers and on caregiver–child interactions. The left side of the table lists estimates for parenting practices that represent positive parent–child interactions. To briefly review, the HOME measures indicate warm and positive parent–child interactions measured by an interviewer observer, while the CTS measure is a subset of items that indicate mature conflict resolution strategies as reported by the caregiver. For all measures, higher scores indicate more positive or negative parenting qualities.⁴⁷ The right side of the table presents CTS measures for more troubling self-reported conflict resolution strategies between the caregiver and child, separating nonphysical but problematic conflict tactics from physical conflict tactics.⁴⁸

changed.

⁴⁷ For example, a high score on the emotional climate measure indicates more warm and positive interactions between the caregiver and child, while a high score on the CTS physical conflict measure indicates more negative physical events.

⁴⁸ I present only full models here for ease of interpretation. For interested readers, as in other research on parental incarceration, the size of the paternal incarceration effect is reduced by one-third to one-half with the inclusion of the lagged dependent variable and does not change much with the inclusion of demographic control variables. This pattern is common in studies of other outcomes, see, e.g., WAKEFIELD & WILDEMAN, *supra* note 3, at 88–93, and demonstrates the importance of adjusting for selection bias in parental incarceration studies.

Table 2
Lagged Dependent Variable Regression Models

	Positive Parent–Child Interactions			Negative Parent–Child Interactions	
	Emotional and Verbal Responsivity (HOME)	Emotional Climate (HOME)	Positive Conflict Resolution (CTS)	Negative Conflict Resolution, Nonphysical (CTS)	Negative Conflict Resolution, Physical (CTS)
Paternal Incarceration Since Wave 1	.34 (.25)	.02 (.12)	.07 (.09)	.22* (.11)	.48‡ (.12)
Preincarceration Measure of Dependent Variable	.16‡ (.02)	.17‡ (.02)	.31‡ (.02)	.31‡ (.01)	.26‡ (.01)
Child Race					
White (vs. Black)	-.16 (.15)	.04 (.07)	-.18‡ (.05)	.32‡ (.07)	-.03 (.07)
Hispanic (vs. Black)	-.05 (.11)	.00 (.06)	-.30‡ (.04)	-.14† (.05)	-.23‡ (.05)
Other Race (vs. Black)	-.81† (.26)	.16 (.12)	-.18* (.09)	.11 (.12)	-.26* (.12)
Child Age	-.17‡ (.01)	-.04‡ (.01)	.01‡ (.004)	.04‡ (.005)	.009 (.006)
Child Male	-.23† (.09)	-.14‡ (.04)	.05 (.01)	-.03 (.04)	.05 (.04)
Primary Caregiver Age	.004 (.006)	.01* (.003)	-.008‡ (.002)	-.006* (.002)	-.006* (.003)
Primary Caregiver Is Biological Mother	.34* (.15)	-.03 (.07)	-.09 (.05)	-.06 (.07)	-.08 (.07)
Primary Caregiver Is Single	.002 (.11)	-.06 (.06)	.12‡ (.04)	.10* (.05)	.09* (.05)
SES Composite Index	.18‡ (.04)	.08‡ (.02)	.10‡ (.01)	.06‡ (.02)	.06‡ (.02)
R-Squared	.13	.06	.22	.20	.16

Source: Project on Human Development in Chicago Neighborhoods (PHDCN), Cohorts 3–15 Notes: * $p < .05$; † $p < .01$; ‡ $p < .001$.

The results presented in Table 2 are consistent for both positive and negative parenting behaviors. There is little evidence that paternal incarceration increases positive parenting behaviors or increases warmth between caregiver and child. While the estimates are positive in direction, the result is not statistically significant in full models with controls and a prior measure of positive parenting behaviors (nor are the results statistically significant in bivariate models without controls).⁴⁹ Contrary to positive parenting behaviors, the results for negative parenting behaviors show significant declines in parenting quality following paternal incarceration. Even when prior levels of negative conflict tactics and physical abuse are controlled, the incarceration of a father exposes children to lower quality caregiving and physical violence. The harmful influence of paternal incarceration remains significant in the presence of controls for demographic characteristics, relationship to the caregiver, and socioeconomic status.

The results presented here are troubling, and it is worth remembering the sorts of parenting behaviors that are captured by the measures presented. The positive parenting behaviors are, to a large degree, capturing conventional parenting and relatively mundane daily interactions between caregivers and children. Behaviors like hugging a child in the presence of an interviewer or responding directly to a child's question are common events that arguably may occur as often in the homes of physically abusive parents as in the homes of parents that provide uniformly warm and high quality care to their children. If this is the case, the results regarding positive parenting behaviors do little to contradict prior results found in the FFCW data or presented in qualitative studies.⁵⁰ As in those studies, the results described here find that paternal incarceration does not confer a benefit in terms of positive parenting strategies but it does little to decrease them.

The results regarding negative parenting behaviors are instructive, however. The measure of negative, nonphysical parenting behaviors may not rise to the level of physical abuse, but they surely present a problem for children. Children with caregivers who insult, scream, cry, or punish out of spite are likely to be affected by those behaviors. Even in the absence of physical forms of abuse, we can plausibly expect that the results presented here have implications for children's mental health and behavioral problems, performance in school, or delinquency (all findings with a solid

⁴⁹ The results are on file with the author.

⁵⁰ For more details, please see the studies discussed *supra* at note 17.

evidentiary basis in the literature on parental incarceration).⁵¹ Indeed, the mean gap in exposure to negative (but nonphysical) parental behaviors between the children of incarcerated fathers and children whose fathers are not incarcerated in the PHDCN is not small. Caregivers of children who had a father incarcerated between the Wave 1 and Wave 2 surveys report an average of 1.16 negative parenting behaviors (out of 5) relative to an average of .73 for the caregivers of children without an incarcerated father.

The results for negative, physical parenting behaviors are as troubling. While even the best parent may report yelling at her or his children, high quality parents do not report threatening, beating, or otherwise abusing their children. Yet the results for negative, physical parenting behaviors are no different than those for negative, nonphysical parenting behaviors. The mean difference in self-reported physical events between caregivers of children with incarcerated fathers and those without incarcerated fathers is also slightly larger. Caregivers of children who had a father incarcerated between the Wave 1 and Wave 2 surveys report an average of 1.4 negative parenting behaviors (out of 7) relative to an average of .76 for the caregivers of children without an incarcerated father. Taken together, the results for negative conflict tactics between caregiver and child suggest significant differences in exposure to poor parenting among children of incarcerated fathers, even relative to children in the sample who are not much more advantaged.

Finally, it is worth recalling that the negative parenting behavior measures are based on self-reports by the caregiver (as opposed to interview observations, as in the case of positive parenting behaviors). We might expect parents to underreport the most serious forms of abuse (for example, burning or beating their children). While certainly not definitive given the small number of controls and narrow measures utilized here, there is certainly preliminary evidence to worry about the caregiving received by children of incarcerated fathers in the PHDCN.

CONCLUSION

Using longitudinal survey data and controls for prior levels of parenting quality, the results presented here suggest that paternal incarceration may have important consequences for parenting quality and, by implication, harmful outcomes for children. Parenting quality has always been an important theoretical link between paternal incarceration

⁵¹ For more details, please see the studies discussed *supra* at note 7.

and outcomes for children⁵² but remained largely unobserved, especially in survey work. The results presented here join other work in showing considerable complexity in the role parenting quality may play in structuring outcomes for the children of the prison boom.⁵³ I find that paternal incarceration increases negative parenting behaviors and can result in serious physical abuse. I find no such effect with regard to positive parenting behaviors. Though narrow in scope, these results present a challenge for researchers to better disentangle the sorts of relationships hinted at here to better understand consequential outcomes for children.

Why the difference in findings between positive and negative parenting behaviors and across studies? There are a number of plausible answers. First, stress (financial or otherwise) is the most common reason to suspect that paternal incarceration may reduce the capacities of caregivers. Yet stress may be more plausibly linked to increases in negative parenting behaviors as opposed to declines in positive parenting behaviors. Indeed, one could imagine that stressed parents who have lost control with their children (physically or otherwise) might attempt to increase positive parenting behaviors as a result (or be more likely to report positive behavior when also reporting negative behavior). While the results regarding positive parenting behaviors are nonsignificant here and inconsistent in the FFCW study,⁵⁴ the measures of positive parenting in both surveys are relatively narrow. More importantly, engaging in positive parenting behaviors (like encouraging or cuddling your child) does not preclude also engaging in negative parenting behaviors, even when the negative behavior rises to the level of serious physical violence.

These seemingly contradictory findings are also not without precedent. Recent studies of intimate partner violence reached the uncomfortable conclusion that violent couples do not differ from nonviolent couples in

⁵² WAKEFIELD & WILDEMAN, *supra* note 3, at 52–61.

⁵³ Following the completion and acceptance of this study, it came to the author's attention that Kristin Turney has confirmed the results presented here, at least among parents who lived together prior to paternal incarceration, showing that paternal incarceration also increases neglect and abuse among children in the FFCW. See Kristin Turney, *The Consequences of Paternal Incarceration for Maternal Neglect and Harsh Parenting*, 92 SOC. FORCES 1607 (2014). While there are nontrivial differences in the datasets, outcome measures, modeling strategies, and sampling restrictions, both studies suggest that negative parenting behaviors are an important mechanism linking paternal incarceration and childhood mental health and behavioral problems, as well as other negative life course outcomes for the children of the prison boom.

⁵⁴ Turney & Wildeman, *supra* note 22, at 19.

terms of commitment, intimacy, or perceptions of partner caring.⁵⁵ By the same token, parents who are engaging in a variety of negative caregiving behaviors, whether belittling their children or hitting them regularly, may also be substantially attached to them and express engagement in their caregiving. Put simply, there is no reason to think that stressed parents who are struggling with caregiving will necessarily score poorly on every available measure of parenting quality.

The disjuncture in findings may also be a function of design differences across studies. Qualitative work may be better suited to capturing the complex interplay between caregiver stress, positive parenting behaviors, and physical violence in families. Likewise, while the PHDCN and the FFCW are both large-scale longitudinal surveys, there are two important differences between them. First, the FFCW is a birth cohort design where one group of children about the same age is followed over time. This design offers several advantages but one disadvantage, especially among hard to reach populations, in that attrition levels can be fairly high. Second, and related to the first, the age of children represented in the PHDCN is very different than the FFCW. The PHDCN uses an accelerated cohort design⁵⁶ (rather than birth cohort sample), so the data offer a broad range in the age of children sampled. The FFCW focused on children up to the age of five,⁵⁷ but the results presented here cover children aged three to fifteen at the first wave of data collection. It is entirely possible that the relationship between paternal incarceration and parenting quality is conditioned by the age of children, with younger children less likely to experience the levels of caregiver-child conflict evident in the PHDCN across a broader age range of children or with younger children being more likely to experience an increase in positive parenting behaviors when a father is incarcerated.

That these sorts of nuances in parenting quality outcomes and mechanisms are unmeasured in most studies should not be surprising. Researchers are limited by both the measures available in large-scale surveys and small sample sizes. The latter problem is especially salient for studies of parental incarceration using surveys of the general population.

⁵⁵ See generally Peggy C. Giordano et al., *The Characteristics of Romantic Relationships Associated with Teen Dating Violence*, 39 SOC. SCI. RES. 863 (2010) (finding that teen relationships characterized by violence have higher levels of conflict and jealousy, but no large differences in perceptions of love and caring, and tend to last longer).

⁵⁶ PROJECT ON HUMAN DEVELOPMENT IN CHICAGO NEIGHBORHOODS, *supra* note 33.

⁵⁷ Turney & Wildeman, *supra* note 22, at 7.

Despite large growths in the prison population in the last four decades, the social patterning of parental incarceration is such that some children (most notably, African-American children of low-education parents) experience it at very high rates while other children have almost no chance of having a parent imprisoned (for example, white children of high-education parents).⁵⁸ Reconciling disparate results in paternal incarceration effects, especially for something as important as parenting quality, is advanced considerably when research knowledge is drawn from a wide variety of data sources and methods.

As we continue to learn more about paternal incarceration, research ought to be clear about what we are studying and remain cognizant of exactly what sorts of parenting behaviors are most important for later life outcomes. Might it be the day-to-day mundane sorts of parenting? The daily cuddles and trips to the museum, for instance? Or should we focus on severe forms of abuse? Perhaps we should identify something in between? There are compelling arguments to support all of the above positions. Relatedly, that a central theoretical link between paternal incarceration and children's outcomes remains understudied (and the results from the few studies completed are potentially contradictory with respect to positive versus negative parenting) is problematic. While the limitations of current research are certainly understandable, more work that details the most proximate causes of later outcomes for children of incarcerated parents is sorely needed. Indeed, in a context in which the conventional wisdom might predict that paternal incarceration should be good for children (or at least not terrible), it is important to construct the most complete narrative possible about how, for whom, and in what ways paternal incarceration is harmful.

⁵⁸ See generally Wildeman, *supra* note 5 (analyzing the racial disproportionality in the likelihood of experiencing paternal imprisonment).

APPENDIX: SUPPLEMENTARY ANALYSES

While lagged dependent variable models are one way of dealing with the problem of nonrandom assignment to prison, propensity score matching is another strategy.⁵⁹ Propensity score models are designed to ensure an appropriate comparison among children by adjusting the sample to eliminate comparisons between children whose fathers had virtually no chance of incarceration with those whose fathers were incarcerated.

Propensity score models directly estimate a probability for the likelihood that a father will be incarcerated using a variety of background characteristics. The first step in a propensity score model, then, is to estimate a logistic regression model predicting the likelihood of prison entry for all fathers in the sample using various background variables (such as age or race) and socioeconomic characteristics (like employment status or household income). The resulting propensity scores can then be used to match parents in the sample or used as a covariate in models predicting outcomes for children. Where it is used as a matching tool, people with a high propensity to enter prison but who did not are matched with people who have a similarly high propensity to enter prison and who did. Once the propensity scores are estimated, a variety of matching methods can be used to compare parenting quality for children of fathers with similar propensity scores but differential exposure to treatment (in this case, paternal imprisonment). Treated and untreated participants who have no match are dropped from the analysis so that the outcomes of unmatched persons do not bias the estimates of the treatment effect.

The results presented use kernel matching methods. Kernel matching weights the propensity score for each treated member of the sample so that exact matches on the propensity score are given more weight in the analysis relative to matches that are less close. Put simply, the contribution that each untreated member makes to the overall treatment effect estimate is weighted based on how close that member's propensity score is to a treated member. In the analysis to follow, I estimate the average treatment effect on the treated using the ATTK module in STATA as well as the more conservative Hodges–Lehman estimates of the treatment effect.⁶⁰

⁵⁹ For more statistical detail on the use of propensity score models in observation (or non-randomized) studies, see Paul R. Rosenbaum & Donald B. Rubin, *The Central Role of the Propensity Score in Observational Studies for Causal Effects*, 70 *BIOMETRIKA* 41 (1983).

⁶⁰ ATTK refers to an estimate of the Average Treatment Effect for the Treated using Kernel matching methods.

To the extent that propensity score models create a matched set of treated and untreated participants, the estimate of the treatment effect of parental incarceration on children can be generalized to the population level and the remaining differences between treated and untreated cases in actually experiencing prison is assumed to be random (the “ignorable treatment assumption”). This is particularly important with respect to more dynamic factors that may change over time and also are related to parental incarceration and parenting quality—factors such as these would be uncontrolled in a lagged dependent variable model but adjusted for in a propensity score model. That the estimates for the lagged dependent variable models and propensity score models are almost identical suggests that this is not an issue. These estimates are shown in Table A1.

Table A1
Propensity Score Models

	Positive Parent–Child Interactions			Negative Parent–Child Interactions	
	Emotional and Verbal Responsivity (HOME)	Emotional Climate (HOME)	Positive Conflict Resolution (CTS)	Negative Conflict Resolution, Nonphysical (CTS)	Negative Conflict Resolution, Physical (CTS)
Paternal Incarceration Since Wave 1	.01 (.28)	-.15 (.15)	.18 (.10)	.310* (.15)	.467† (.18)

Source: Project on Human Development in Chicago Neighborhoods (PHDCN), Cohorts 3–15

Notes: * $p < .05$; † $p < .01$; ‡ $p < .001$.

Propensity score model estimates were estimated using the ATTK procedure in STATA, kernel matching with common support restrictions, and included all of the control variables present in the lagged dependent variable models.

