Parental Incarceration and Child Wellbeing: Implications for Urban Families

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Abstract

Objective

Using a population-based, longitudinal family survey (N=4,898), we identify a set of economic, residential, and developmental risks particular to the children of incarcerated parents.

Methods

We use parental reports of incarceration history, demographic background, and a rich set of child and family outcomes, in a series of multivariate regression models.

Results

Children of incarcerated parents face more economic and residential instability than their counterparts. Children of incarcerated fathers also display more behavior problems, though other developmental differences are insignificant. Several family differences are magnified when both parents have been incarcerated.

Conclusions

We find that incarceration identifies families facing severe and unique hardship. Given the prevalence of incarceration, this means a large population of children suffers unmet material needs, residential instability, and behavior problems. These risks may be best addressed by using the point of incarceration as an opportunity for intervention, and the administration of age-appropriate social services.

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I. Introduction

By the end of 2004, the United States had over 2.1 million people incarcerated in Federal or State prisons or local jails (Harrison and Beck, 2004), a majority of whom had children under 18. In 2002, 1,150,200 parents, with 2,413,700 minor children, were incarcerated in State and Federal prisons or local jails (Mumola, 2006). Despite the prevalence of incarceration among parents, however, we know very little about the relationship between imprisoned parents and child wellbeing.

Most studies in this area are not population-based, are based on convenience samples, and are limited by cross-sectional or short-term design. They therefore provide descriptive statistics of children with incarcerated parents, but are unable to assess whether the statistics are representative of children with incarcerated or whether the observed characteristics differ from those displayed by children in other disadvantaged families. The incarcerated population is disproportionately male, young, less educated, and black (Western and Beckett, 1999), and parents facing incarceration frequently suffer from poor mental health, and lack material resources necessary for childrearing. Such circumstances would likely be associated with child disadvantage even in the absence of incarceration.

However, this disadvantage is likely to be aggravated when a parent is incarcerated, and may persist even after release. Research on divorce and parental death suggests that forced parent-child separation may lead children to develop poor adaptive strategies, low self-esteem, or delinquent behaviors (Solomon and Zweig, 2006). Incarceration has been shown to cause financial hardship for the incarcerated individuals, and is likely to also affect their families, who are forced to compensate for lost income or lost child support. Prisoners earn little while incarcerated, and even

after release, men with a history of incarceration face structural and social barriers to employment (Clear, Rose, and Ryder, 2001; Hagan and Dinovitzer, 1999; Holzer, 2005; Holzer, Raphael, and Stoll, 2003; Kling, 2006; Western, Kleykamp, and Rosenfeld, 2003; Western, Kling, and Weiman, 2001). These challenges may lead to additional material hardship, residential instability, and strained parental relationships, and also may be associated with poor child development. Moreover, the considerable variation in child care arrangements (Johnson and Waldfogel, 2002; Parke and Clarke-Stewart, 2002), and any stigma associated with a parent's incarceration may compound the effects of separation.

What scarce empirical literature exists on parental incarceration supports these hypotheses. Studies find that young children (ages 2-6) of incarcerated parents have been observed to have emotional problems. Likewise, school-aged children with incarcerated parents have been observed to be stigmatized by their peers, and display poor academic performance and behavior problems (Parke and Clarke-Stewart, 2002; Wilbur et al., 2007). However, as noted, the majority of this research is based on small convenience samples, without adequate comparison groups. It is therefore unclear to what extent the experiences of children of incarcerated parents differ from those of other disadvantaged children (Wilbur et al., 2007). One population-based study (Phillips et al., 2006) examines school-aged children in rural North Carolina, and finds that children whose parents have been incarcerated face significantly more economic strain and residential instability than their counterparts whose parents have never been to prison or jail. However, this research does not examine developmental outcomes such as behavioral problems or cognitive development.

This research significantly contributes to the state of knowledge about the children of incarcerated parents. The Fragile Families and Child Wellbeing survey examines an urban sample of children, most born to unwed parents. Many of these parents have histories of incarceration, and

their lives and the lives of their children are described more completely than in most datasets focusing on incarcerated individuals. Moreover, because the data are representative of nonmarital births, those children whose parents have an incarceration history can be compared to other disadvantaged children and other children with nonresident parents.

The longitudinal nature of the Fragile Families study also allows the analysis of children's developmental trajectories from birth through age 3, examining both family circumstances such as hardship and instability, and child outcomes such as aggression, physical health, and cognitive development. While this paper does not seek to answer the causal question of whether these hardships and challenges stem directly from the parents' incarceration, simply observing disadvantages faced uniquely by the children of incarcerated parents would suggest that these children are a population at particular risk, and that the point of incarceration could provide a valuable opportunity to address these risks through social services.

II. Data and Methods

The Fragile Families and Child Wellbeing Study

The Fragile Families and Child Wellbeing Study (hereafter "Fragile Families") follows a representative sample of children born in twenty U.S. cities with populations over 200,000. Baseline data were collected between 1998 and 2000. Nonmarital births were oversampled: 4,898 mothers were interviewed in the hospital within 24 hours of their child's birth (1,186 marital births and 3,712 nonmarital births). Fathers were also interviewed in the hospital when possible, and contacted elsewhere if they were not present at the birth. In all, 3,830 fathers (approximately 90% of married fathers and 75% of unmarried fathers) were interviewed at baseline. Parents were re-interviewed one and three years after the child's birth. Response rates for mothers were 91, and 89 percent, at years 1 and 3, respectively, of married mothers participating in the baseline survey, and

90 and 87 percent among unmarried mothers. For fathers, response rates were 82 and 82 percent among fathers that were married at baseline, and 70 and 67 percent among fathers not married at baseline. The Fragile Families study was designed to examine the roles of social and material disadvantage on child wellbeing.

A substantial number of the Fragile Families parents have experienced incarceration; three percent of fathers were in prison or jail at the time their child was born. Accordingly, in the first year and third-year follow-ups fathers were directly asked about their criminal histories: whether they had ever been charged with a crime, convicted, incarcerated, or made to perform community service. Mothers were also asked whether the father had ever been incarcerated. Likewise, in the third year both parents are asked if the mother has ever been incarcerated. 45% of unmarried fathers, 10% of married fathers, and 7% and 2% of mothers are reported to have some experience of incarceration by their child's third birthday.

Child and Family Outcomes

Economic Outcomes

A parent's incarceration is likely to lead to challenges in employment, which in turn place children at risk of having unmet needs. Incarceration incapacitates the parent from the regular labor market while incarcerated, and has been associated with difficulties securing stable employment upon their release. We therefore examine several measures of labor market performance: whether they are employed at the time of their third-year survey, the number of weeks they worked in the past year, their most recent hourly wage, and their total reported earnings over the past year. In the analysis of father incarceration, we also compare the amount fathers contribute to their families in the previous year (Betson, 2006)[1].

Family Stability Outcomes

Parental incarceration may also be detrimental to children because of resulting family instability. If an incarcerated parents' labor force participation suffers, then the child may face material hardship. We define the presence of material hardship as a mother's report that she has not met at least one major need in the past year, due to the lack of financial resources[2]. We also measure the depth of hardship the child experiences by counting the number of needs the mother reports not having met. In addition to these measures, we measure the prevalence of public assistance receipt, and the rate at which parents are married, co-resident, or non-resident when their child is 3 years old. Finally, we compare children's residential stability, by measuring the number of times in their lives each of their parents has moved.

Child Development Outcomes

Parental incarceration, and any associated instability, may adversely affect child development. We compare children whose parents have and have not been incarcerated on a number of dimensions. We examine a general five-point (poor to excellent) rating of child health provided by the mother or primary caregiver. We examine three measures of child behavior using subscales of the Child Behavioral Checklist (Achenbach and Rescorla, 2000). Finally, we measure children's cognitive development using their scores on the Peabody Picture Vocabulary Test (PPVT) at age 3. Differences in these measures between children with and without incarcerated parents may suggest interventions to improve child outcomes.

Multiple Imputation

Despite high overall response rates in the Fragile Families study, a non-negligible portion of parents are either not interviewed, or fail to report their (or their partner's) incarceration history. Approximately 10% of fathers and 13% of mothers have no indication of whether or not they have ever been incarcerated. In these cases, their incarceration status is estimated using a set of multiple

imputation models (Royston, 2004; Rubin, 1987). Multiple imputation strategies impute missing data values based on each parameter's likelihood of being missing and the nonmissing values of other relevant parameters, and incorporates an appropriate degree of uncertainty into subsequent statistical analyses. Multiple imputation is also used to estimate missing values of other parameters of interest, including parents' wages and income levels, mental health status, education levels, and several demographic characteristics. The results are not sensitive to the multiple imputation.

Baseline Demographic and Socioeconomic Descriptions

Fragile Families parents who have been incarcerated differ significantly from those who have not. As shown in Table 1, children whose fathers who have spent time in prison or jail are more likely to be a racial or ethnic minority, and are less likely to be born to married parents. Their fathers are younger at their birth, are less educated than their counterparts, and perform worse in the labor market at the time their child is born. Likewise, children with mothers who have been incarcerated are more likely to be minorities, and their mothers are younger, less educated, and less likely to be employed than their counterparts with no history of incarceration. These mothers also earn less over the course of a year, though differences in their wages are small and not statistically significant.

Both fathers and mothers with incarceration histories are evaluated as more impulsive than their counterparts. They also are more than twice as likely as their counterparts to have a partner who has also been incarcerated, suggesting that their children may face increased risk from the incarceration of both parents. Notably, approximately half of mothers with incarceration histories have partners who have also have spent time in prison or jail.

[Table 1 about here]

Modeling Strategy

To determine whether children whose parents have been incarcerated face unique challenges, we first construct a series of regression models that compare families where a parent has and has not been incarcerated, controlling for a number of baseline characteristics as shown in Model 1. The vector $\mathbf{X}_i$ consists of: parents' race/ethnicity, age at the child's birth, education level, and impulsivity. The outcome variable Y_i represents each of the labor force performance, family structure and stability, and child development indices described above.

$$Y_i = \beta_0 + \beta_1 * \text{Incarceration}_i + \boldsymbol{\beta}_2 * \mathbf{X}_i + \varepsilon_i \qquad (1)$$

As shown in Tables 1a and 1b, parents with a history of incarceration are far more likely to have partners who have also been incarcerated. To the extent that children are at risk when a parent goes to prison or jail, the incarceration of both parents may compound this risk. We therefore construct a second series of models as shown in Model 2:

$$Y_i = \beta_0 + \beta_1 \text{DadOnlyInc}_i + \beta_2 \text{MomOnlyInc}_i + \beta_3 \text{BothInc}_i + \boldsymbol{\beta}_4 * \mathbf{X}_i + \varepsilon_i \qquad (2)$$

In this model, parents' joint incarceration status is used to predict a more limited set of outcomes, focusing on family stability and child development. Likewise, $\mathbf{X}_i$ contains a more limited set of covariates in order to avoid multicollinearity. Theories of assortative mating suggest that parents frequently partner with individuals of similar race, ethnicity, age, and education (Weiss, 2008). In this model $\mathbf{X}_i$ therefore is based primarily on mothers' characteristics (race, ethnicity, and age), but includes impulsivity and education measures for both parents.

III. Results

Risks Associated With Incarceration History

Results from Model 1 are provided in Table 2. Each row represents one of the aforementioned outcomes, and the first two numerical columns present predicted values of each outcome for children whose fathers do and do not have a history of incarceration. The two rightmost columns present the predicted values of each outcome for children whose mothers have and have not been incarcerated. For outcomes measured in monetary terms (wages, earnings, and fathers' contributions), table entries provide the percent difference between parents with and without histories of incarceration.

[Table 2 about here]

As predicted, both mothers and fathers who have been to prison or jail perform significantly worse in the labor market than their counterparts who have no incarceration history; they are less likely to be employed around their child's third birthday, and report fewer weeks worked in the past year. Each of these outcomes is due to a combination of factors. First, particularly among parents incarcerated since their child's birth, their jail or prison sentence may extend into the year preceding their interview, incapacitating them from the regular labor market. Second, parents with incarceration histories, even those whose sentences ended more than one year before their interview, may struggle to find stable employment, due to a lack of skills or the stigma associated with incarceration. Wages and earnings are also lower among parents who have been incarcerated, but this difference is far more pronounced, and is only statistically significant, among fathers. Finally, fathers who have been incarcerated contribute far less cash support to their partners and children. This is also due to multiple factors: the incapacitation of recently incarcerated men from

the regular labor market, lower wages and earnings once they return from prison or jail, and the increased likelihood that formerly incarcerated men will live away from their families.

Children of incarcerated parents also face considerable family instability. They are significantly less likely to live with both their parents, and are significantly more likely to experience material hardship. They and their mothers also experience a significantly deeper level of hardship, and they are also more likely to receive public assistance. These children also experience substantial residential instability, and move more frequently than those whose parents were never incarcerated[31].

The economic and family challenges faced by children whose parents have been incarcerated suggest that they are also at great risk for adverse developmental outcomes. In fact, at age 3, observed differences are few, but those that exist suggest significant behavioral problems among the children of incarcerated fathers. After controlling for parental characteristics such as race, age at the child's birth, impulsivity, and educational attainment, children whose fathers have a history of incarceration are nearly 50% more likely than their counterparts to exhibit borderline or clinically aggressive behavior. These children are also significantly more likely to display anxious/depressive behavior. On the other hand, on measures of withdrawal, physical health, and cognitive development, they do not differ significantly from children whose fathers were never incarcerated.

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[1]Children's residential moves are measured as the number of times their mothers (most frequently the custodial parent) has moved since their birth. The estimated difference in residential instability between children with and without parental incarceration will be a conservative one if mothers do not consistently have custody, which is often the case when a parent is incarcerated.

Compounding of Risk: The Incarceration of Both Parents

Examining whether risks are compounded when both parents have histories of incarceration, we use Model 2 to estimate the relationship between family incarceration history and both family stability and structure, and child development. Results are provided in Table 3.

[Table 3 about here]

Children face significantly more instability when both parents have a history of incarceration. They are more likely to experience some form of material hardship, and the average level of hardship they experience is more severe, than even the increased level of hardship experienced when only one parent has been incarcerated. Children are also more likely to receive public assistance and experience significantly more residential moves when both their parents have been incarcerated.

In terms of child development outcomes, differences between the four groups are not statistically significant. However, the estimates in Table 5 further support the earlier aggression findings: differences in aggressive behavior are tied significantly to fathers' incarceration, regardless of whether mothers have also been incarcerated.

IV. Implications for Research and Policy

We again stress that the models presented in this analysis do not seek to establish a causal relationship between incarceration and child wellbeing. The models control for a number of observed characteristics that are correlated with both incarceration and the outcomes, but do not attempt to control for unobserved heterogeneity between parents who have and have not been to prison or jail. In future research we plan to examine the question of causality; establishing a causal relationship between incarceration and diminished child wellbeing would suggest that the

retributive and public-safety benefits of incarceration would need to be weighed carefully against the collateral consequences of incarceration for families and children.

Nonetheless, our findings indicate that families in which a parent has been incarcerated face considerable hardship not experienced by other urban families. These unique challenges suggest that the point at which a parent is incarcerated may serve to identify his or her family as at risk for hardship and instability, and in the case of fathers, may identify their young children as at risk for increased aggression, anxiety, and depression. Services for their families may help to ameliorate material hardship and assure the stability of resources. Equally importantly, given the residential instability faced by children when their parents are incarcerated, service providers should strive for continuity of assistance, even in the event that the family of an incarcerated individual is forced to move. Finally, given the increased risk among the children of incarcerated fathers for aggressive and anxious/depressive behavior, age-appropriate mental health services should be made available to children separated from their parents by incarceration.

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Table 1: Comparison of ever- and never-incarcerated parents

Fathers		
	Ever-Incarcerated	Never-Incarcerated
% White	12%	31%
% Black	53%	30%
% Hispanic	30%	32%
% Other	5%	7%
Age at Focal Child's Birth	27 years old	31 years old
% Married	19%	64%
% Cohabiting	37%	19%
% Nonresident	44%	17%
% with <HS Education	42%	26%
% with HS Diploma	34%	25%
% with some college	18%	22%
% with college +	6%	27%
% Employed at baseline	71%	89%
Baseline wages	$11.32	$16.66
Baseline earnings	$22,003	$38,598
Impulsivity score (0=low, 6=high)	1.9	1.2
Partner ever incarcerated?	8%	3%
Mothers		
	Ever-Incarcerated	Never-Incarcerated

% White	23%	30%
% Black	55%	34%
% Hispanic	20%	30%
% Other	2%	6%
Age at Focal Child's Birth	25 years old	27 years old
% Married	22%	54%
% Cohabiting	33%	23%
% Nonresident	45%	23%
% with <HS Education	44%	28%
% with HS Diploma	38%	32%
% with some college	12%	19%
% with college +	6%	21%
% Employed at baseline	23%	37%
Baseline wages (excluding zeros*)	$7.82	$8.34
Baseline earnings (excluding zeros*)	$8,965	$20,006
Impulsivity score (0=low, 6=high)	1.9	1.3
Partner ever incarcerated?	50%	25%

*As the majority of mothers are not employed in the two weeks leading up to their child's birth, baseline wage and earnings comparisons exclude those mothers with zero wages and earnings. This strategy is likely to provide a conservative estimate of the differences between the two groups, as maternal employment is lower among

mothers with a history of incarceration.

Table 2: Individual, Family, and Child Wellbeing Measures (Year 3) by Parental Incarceration Status

(Adjusted for parents' race, age, education, and impulsivity)

	Father Incarceration		Mother Incarceration	
	Ever-Incarcerated	Never-Incarcerated	Ever-Incarcerated	Never-Incarcerated
Parent's Labor Force Performance				
Current Employment*##	73%	84%	50%	56%
Weeks Worked in Past Year****###	38.7	44.0	26.2	30.2
Hourly Wage Elasticity***	-24%	Ref.	-9%	Ref.
Past-Year Earnings Elasticity***	-91%	Ref.	-28%	Ref.
Elasticity of Fathers' Contribution***	-157%	Ref.		
Child's Family Stability Indicators (parental relationship status refers to biological parents)				
% Married (Year 3)***###	21%	40%	23%	33%
% Cohabiting (Year 3)***###	18%	22%	17%	20%
% Parents Nonresident (Year 3)***###	61%	38%	60%	47%
Any Material Hardship?***###	62%	59%	63%	60%
Level of Hardship Child Experiences (0=low, 7=high)***###	0.96	0.66	1.03	0.77
Public Assistance Receipt?***##	55%	37%	55%	44%
Times Child has Moved Since Birth***###	1.57	1.11	1.78	1.27
Child Development Indicators				
Child Health Rating (1=poor, 5=excellent)	4.45	4.49	4.50	4.47

Child's PPVT Score	85.8	86.6	85.6	86.4
CBCL Subscales				
Aggressive (% in Borderline or Clinical Range)***	13%	9%	12%	11%
Anxious/Depressive (% in Borderline or Clinical Range)**	16%	13%	12%	14%
Withdrawal (% in Borderline or Clinical Range)	14%	12%	13%	13%

Father Analyses: *P≤.05, **P≤.01, ***P≤.001

Mother Analyses: #P≤.05, ##P≤.01, ###P≤.001

Table 3: Child's Family Stability and Developmental Wellbeing (Year 3) by Family Incarceration History (Adjusted for parents' race, age, education, and impulsivity)

	Neither ever incarcerated	Only Mother incarcerated	Only Father Incarcerated	Both Incarcerated
Family Structure (refers to child's biological parents, totals may not add to 100% due to rounding)				
% Married (Year 3)	40%	25%	23%	19%
% Cohabiting (Year 3)	22%	19%	19%	17%
% Nonresident (Year 3)	39%	55%	59%	64%
Material Hardship and Residential Stability				
Any Material Hardship?**##	37%	40%	47%	58%
Level of Hardship Child Experiences (0=low, 7=high)***#	0.67	0.79	0.91	1.19
Child Receiving Public Assistance?#	38%	46%	53%	60%
Times Child has Moved Since Birth***##	1.13	1.38	1.46	1.99
Child Development Indicators				
Child Health Rating (1=poor, 5=excellent)	4.48	4.54	4.46	4.47
Child's PPVT Score	86.5	85.3	86.2	85.6
CBCL Subscales				
Aggressive (% Borderline or Clinical)	10%	9%	13%	14%
Anxious/Depressive	14%	8%	15%	15%

(% Borderline or Clinical)				
Withdrawal (% Borderline or Clinical)	12%	13%	13%	13%

*P<.05, **P<.01, ***P≤.001 in comparing the incarceration of both parents to father-only incarceration

#P<.05, ##P<.01, ###P≤.001 in comparing the incarceration of both parents to mother-only incarceration

Notes

[1] The measure of "father's contribution" is a combination of the amount he contributes via shared earnings (for fathers who are married or cohabiting with their partners and children), and the amount he contributes via formal and informal child support (for those parents unmarried and not living with their children.) Following the example of Betson (2006), we estimate that married and co-resident fathers contribute 25% of their earnings to their child in "informal support". The contribution of unmarried and non-resident fathers is equal to the amount they pay in formal support, plus the amount of informal cash support the mother reports receiving.

[2] These include: receiving free food, losing phone service, losing utility services, being evicted, not paying their full utility bills, not paying their full rent or mortgage, or not seeing a doctor when one was needed (Kenney, 2003).

[3] Children's residential moves are measured as the number of times their mothers (most frequently the custodial parent) has moved since their birth. The estimated difference in residential instability between children with and without parental incarceration will be a conservative one if mothers do not consistently have custody, which is often the case when a parent is incarcerated.