



**DO PRISONS
MAKE US SAFER?**
THE BENEFITS AND COSTS OF THE PRISON BOOM

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Rucker C. Johnson

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Ever-Increasing Levels of Parental Incarceration the Consequences and for Children

The enormous increase in incarceration led to a parallel, but far less documented, increase in the proportion of children who grew up with a parent incarcerated at some point during their childhood. Moreover, the concentration of these incarceration trends among less-educated African Americans has resulted in a larger gulf between the early-life experiences of white and black children, which may have profound effects on their later-life socioeconomic attainments. The implications for child well-being of policy-induced increases in the incidence of parental incarceration are not well understood.

The consequences of incarceration on children have received little attention in academic research, prison statistics, public policy, and media coverage. If we fail to consider potential impacts of incarceration on children, we risk neglecting at-risk youth; this may contribute to crime problems in the next generation. This is an important potential negative externality and unintended consequence of criminal-justice policy, with parental incarceration imposing larger social costs than merely the prison cost.

This chapter aims to produce nationally representative estimates of the prevalence of parental incarceration for children born between 1985 and 2002, by race and socioeconomic status. It also aims to investigate the effects of parental incarceration on child outcomes, including early antecedents of youth crime, using intergenerational correlations in the likelihood of criminal involvement (arrest, conviction, incarceration).

The empirical analyses use nationally representative longitudinal data covering a nearly forty-year period in the United States to produce evidence that concern each of these issues. I exploit unique features of the Panel Study of Income Dynamics (PSID) and its Child Development Sup-

plement (CDS) to tackle these interrelated research questions. This is the first such study of the full U.S. population.

Using the PSID-CDS, I provide evidence on a series of important descriptive questions regarding how often white, black, and Hispanic children experience paternal incarceration; how the risk has changed over the past twenty-five years (recent birth cohorts versus older birth cohorts from other data sources); and how this risk varies within racial and ethnic groups.

The focus of the regression analysis section investigates the consequences for children of parental incarceration. The results highlight changes in the child's family income and poverty status before, during, and following a father's incarceration. It is shown that children from families with an incarceration history have worse behavioral outcomes. This chapter presents evidence on intergenerational correlations in deviant behavior. Several different empirical strategies are employed to distinguish whether this correlation emanates primarily from observed and unobserved disadvantaged childhood-environment characteristics (proximate causes) versus the causal effects of parental incarceration.

PREVIOUS RESEARCH ON PARENTAL INCARCERATION AND CHILD WELL-BEING

Children of prisoners have been referred to as the "orphans of justice" and "innocent victims of punishment." The limited extant evidence on prisoners' children is drawn from small-scale, mostly qualitative research studies, and have rarely included longitudinal follow-up. The consequences of ever-increasing levels of incarceration for children are perhaps the least understood aspect of the potential positive or deleterious impacts of incarceration policy on families and communities.

Over the decade of the 1990s, the number of children with a parent in state or federal prison in the United States rose from 1 million to 1.5 million (Mumola 2000). Ninety-two percent had a father in prison, which disproportionately affects black children. The number of parents in prison doubled over this period, with nearly 3.6 million parents placed under some form of correctional supervision, including parole, by 2000. On any given day, 7 percent of black children have an incarcerated parent, compared with 2.6 percent of Hispanic children and 0.8 percent of white children. Before entering prison, 64 percent of imprisoned mothers lived with their children, compared to 44 percent of imprisoned fathers in the United States (Mumola 2000). Current prison statistics contain only point-in-time prevalence rates, which mask the extent of childhood experiences of incarceration that could be gleaned from incidence rates. Snapshot cross-sectional estimates significantly

understate cumulative risk of exposure to parental incarceration during childhood.

Parental separation that results from incarceration may pose unique risks in its effect on children and the family, relative to parental separations due to divorce, which has a voluminous research literature. A prison sentence may be a death sentence of a father's relationship with his child; conversely, it may liberate a child from an oppressive, abusive, or negligent environment growing up. Alternatively, it may have negligible effects because of limited father involvement in the child's life prior to imprisonment.

The small research literature on children of incarcerated parents suggests that parental incarceration is associated with increased aggressive behavior and withdrawal (Baunach 1985), criminal involvement (Johnston 1995), and depression (Kampfner 1995). Existing studies, however, have not been able to separately identify the causal effects of incarceration from the effects of preincarceration risk factors such as parental substance abuse, mental-health problems, and abuse histories that may have already put the child at risk before the parent was imprisoned (Johnson and Waldfoegel 2002). Although previous research on children with an incarcerated parent has been methodologically weak in assessing causality, these studies consistently document significantly more behavior problems among these children, including aggressive behavior, depression, hyperactivity, withdrawal, running away, sleep and eating disorders, poor school grades, and delinquency (Johnston 1995). Potential explanations for the association between parental incarceration and child behavior problems include the following:

- Trauma of separation
- Parental role-modeling effects (poor parenting, substance abuse, domestic violence)
- Potential beneficial effects from removing abusive parent from household
- Shared childhood socioeconomic deprivation prior to imprisonment
- Depleted parental resources following parental incarceration—reduction in family income and reduced quality of care (disruptions in children's care arrangements accompanied by school and residential moves)
- Genetic predisposition or inherited traits (temperament, parental criminality)

The direction of the predicted impacts on children is not clear theoretically. The incarceration of an abusive or negligent parent may benefit chil-

dren and contribute to a more nurturing environment. On the other hand, the incarceration of a parent may be a traumatic event in the life of a child that has deleterious impacts on subsequent emotional and behavioral outcomes. Assessing the relative importance of these potential explanations and evaluating whether parental incarceration is merely a risk marker as opposed to a causal risk mechanism has implications for policy. For example, if shared childhood socioeconomic deprivation is the most salient factor underlying the relationship, then policies aimed at reducing poverty also reduce crime. Alternatively, if inherited traits or genetic predispositions are driving factors, then the efficacy of interventions targeted directly at the children of incarcerated parents may be very limited (without significant nature-nurture interaction effects).

There are myriad ways in which parental incarceration may compound disadvantage. It may increase the probabilities of growing up poor or with a single parent, or it may elevate the risk of criminal involvement and incarceration later in life for children of the incarcerated prison-boom generation. There are a variety of potential mechanisms through which parental incarceration may affect child outcomes, including economic instability, living-arrangement instability, parental-attachment issues, and role-model effects, to name a few. A primary goal of this research is to identify the reduced-form effects—not to separately identify the pathways.

The evidence presented in this chapter will bear on the question of the likelihood and extent that parental incarceration has exacerbated racial disparities in childhood and early adulthood. Given extant evidence that children who begin early formation of deviant behaviors in childhood are more likely to develop persistent, serious criminal involvement in adulthood, as well as the greater economic efficiency of policies aimed at prevention versus remediation, it is important to target intervention in early childhood.

Using data from Sweden, economists Randi Hjalmarsson and Matthew Lindquist (2007) report significant father-son correlations in criminal activity that begin to appear between ages seven and twelve, and that are fully established between ages thirteen and nineteen. The implication of this finding is that expectations during childhood about future adulthood opportunities shape deviant behavior over the life course and can explain a significant part of the father-son correlation. Identifying early antecedents for deviant behavior has the potential to reduce risks of criminal involvement in adulthood, and thereby break the cycle of the victimization-to-offending behavior pattern.

Because most incarcerated parents are fathers (with whom boys might identify more), and because boys appear to be more negatively impacted than girls by other types of family disruption such as parental divorce (McLanahan 2002), we expect the consequences for boys to be larger. Pre-

vious research has shown that the absence of the father leads to "acting-out" behavior (externalizing behavior problems), and the absence of the mother is associated with "acting-in" behavior (internalizing behavior problems) (Fritsch and Burkhead 1981). It is important to bear in mind that not all children respond similarly to parental criminal involvement, incarceration risk, or neighborhood disadvantage. For some, these experiences cause permanent developmental disruptions; others experience latent effects and appear to respond well in the face of difficult challenges early on, followed by behavior problems later in adolescence and the transition to adulthood. Still others exhibit resilience in the face of adversity and appear to be strengthened by these early-life traumatic events (Rutter 1987, 1993).

Cross-sectional evidence provides an incomplete and perhaps misleading portrait of the proportion of children who experience parental incarceration during childhood, as well as how parental incarceration may affect the developmental trajectories of children. It is important to consider dynamic issues by analyzing separately the short-run effects of the imprisonment and separation of the child from the parent, the impact of the parent's unavailability during the incarceration spell, and the effects of reunion after prison release. As well, one must consider whether the child is living with the parent at the time of incarceration; whether a two-parent or single-parent family is involved; and if it is a two-parent family, which parent is incarcerated. The most recent estimates (Mumola 2000) indicate that 36 percent of state-inmate mothers and 16 percent of federal-inmate mothers were not living with their children at the time of their incarceration; meanwhile, 56 percent of state-inmate fathers and 45 percent of federal-inmate fathers were not living with their children at the time of admission. Investigations of the patterns of visitation show that about half of incarcerated parents do not receive any visits from their children, and the frequency of visits is typically not often (Snell 1993).

DATA

The PSID began interviewing a national probability sample of families in 1968. These families were reinterviewed each year through 1997, when interviewing became biennial. All persons in PSID families in 1968 have the PSID "gene," which means that they are followed in subsequent waves. In addition, anyone born to or adopted by PSID sample members acquires the PSID "gene" and therefore is followed. When children with the "gene" become adults and leave their parents' homes, they become their own PSID "family unit" and are interviewed in each wave. Studies have concluded that the PSID sample of heads and wives remains representative of the national sample of adults (Fitzgerald, Gottschalk, and Moffitt

1998a; Beckett et al. 1988), and that the sample of "split offs" is representative (Fitzgerald, Gottschalk, and Moffitt 1998b). The 95 to 98 percent wave-to-wave response rate of the PSID makes this possible. Moreover, the genealogical design implies that the PSID sample today includes numerous adult parent-child groupings that have been members of PSID-interviewed families for nearly four decades.

Two samples are examined in the study. The adult sample in this chapter consists of PSID sample members who were children when the study began and who have been followed into adulthood. Specifically, I choose PSID sample members born between 1951 and 1975, which consists of children up to seventeen years old in the first wave of interviewing in 1968, plus children born into the PSID sample between 1968 and 1975. We then obtain all available information on these individuals for each wave, from 1968 to 2005. Therefore, by 2005 the oldest person in the adult sample is fifty-five years old, and the youngest is thirty years old.

For the deviant behavior, crime outcomes, and incarceration outcomes, the adult sample consists of original sample PSID males born between 1951 and 1975 who answered the criminal-history questions in the 1995 wave of the PSID or were positively identified as incarcerated in any wave of the survey between 1968 and 2005 (total $N = 2,944$; whites $N = 1,612$; blacks $N = 1,207$; Hispanics $N = 103$; other $N = 22$).

Spells of incarceration can be recovered from each survey, which includes whether a respondent was incarcerated at the time of the interview. This data alone on incarceration has limitations. Among the most important is that this will only identify incarceration in a given year if it was ongoing at the time of the survey interview. As a result, we are likely to miss individuals serving shorter sentences that did not coincide with the time of the interview.

The 1995 wave added a criminal-history module to the PSID including several key questions that this chapter uses to augment and obtain more precise information about the timing and duration of incarceration and minimize measurement error. In particular, information was collected for all adults in the 1995 wave on whether respondents had ever been expelled or suspended from school; whether they had ever been booked or charged with a crime; whether they had ever been placed in a juvenile correctional facility; and whether they had ever served time in jail or prison, the number of times, and the month and year of release.

Using the PSID information, I identify whether an incarcerated individual was a parent, and then I compare the dates of these incarceration spells to children's birth dates in order to identify which parents were incarcerated while they had children at home and how old the children were. It is important to note that I will not be able to identify parents who were incarcerated but never lived with the child at any time during their

childhood. Thus, these analyses will systematically miss parents who have not been involved in their children's lives, which will likely result in a positive selection bias of families with an incarceration experience relative to the entire universe of parents with an incarceration history. In many ways, however, this is precisely the set of children for which parental incarceration may have consequences (either positive or negative) because of greater contact with children prior to the incarceration spell. Incarceration among parents who would not have been involved in their children's lives even without incarceration is less interesting for assessing child well-being and implications for criminal-justice policy.

Child Sample

In 1997, children up to twelve years old in PSID families and their caregivers were administered a series of instruments as part of the Child Development Supplement (CDS). Up to two children within the same family were interviewed, resulting in a sample of 3,540 children in 2,348 different families in 1997 (1,132 families included two interviewed children). Interviews for these children were completed again in 2002 and 2003 when they were five to eighteen years old. In total there are 6,447 child-year observations (for more details about CDS, see Mainieri 2005; Mainieri and Grodsky 2006).

This chapter examines the effects of parental incarceration on children's educational and behavioral outcomes using data from the PSID-CDS, allowing for differential impacts for father's and mother's incarceration. Using this data, this study finds that the prevalence rates of parental incarceration at some point during childhood are significantly larger than point-in-time estimates. In this study, the consequences for children are considered by using information on the timing of parental criminal and incarceration history; changes in multiple dimensions of children's development and lives before and after the parental incarceration occurrence are then compared. These dimensions include child behavioral outcomes, family economic resources (such as income), family noneconomic resources (such as family structure and parenting behavior), and neighborhood conditions.

These data include a rich set of variables related to the mother, father, and the child, including parental criminal history, a set of child behavioral problem indices, standardized child cognitive assessments, and whether the child has ever been suspended or expelled from school. Armed with this array of information, the PSID-CDS is uniquely suited to consider the impacts of parental criminal and incarceration history on adolescent outcomes and to analyze the intergenerational transmission of risks of imprisonment. The child behavior problems index that is analyzed as an

outcome has been shown to be a predictor of juvenile crime. This study utilizes information about these child outcomes as reported by the primary caregiver (the mother in most cases); where data permits, it also utilizes multiple informants of child behavior (including teacher reports).

CUMULATIVE RISKS OF DEVIANT BEHAVIOR, CRIMINAL INVOLVEMENT, AND INCARCERATION

Table 6.1 reports nationally representative estimates of the cumulative risks of deviant behavior, criminal record, and incarceration or death by ages thirty-five to forty for the PSID birth cohort born between 1951 and 1975. These estimates are presented for men separately by race-ethnicity and educational attainment. Deviant behavior is defined here as individuals who had ever been either expelled or suspended from school, charged or booked for a crime, or incarcerated. Incarceration includes individuals sentenced to jail or prison sometime during adulthood.

We find alarmingly high rates of these lifetime risks, especially for black high-school dropouts. Roughly two-thirds of black high-school dropouts have either died or been incarcerated before reaching the age of forty. For black high-school dropouts, the lifetime risk of deviant behavior is 63 percent, 55 percent have a criminal record, and one-half have served time in prison or jail. These rates are staggering and unique to this prison-boom generation.

The rates for African Americans are roughly two times the rates of non-Hispanic whites, and, not surprisingly, lifetime risks are substantially lower for college-educated men. However, we also see that there are dramatic racial disparities in lifetime risks of incarceration among non-college-educated men. In fact, black men with some college education had similar lifetime risks of incarceration as white non-college-educated (high-school graduate) men (a lifetime risk of 10 percent).

These estimates are broadly consistent with those from the Bureau of Justice Statistics (BJS) (Bonczar and Beck 1997), the NLSY (Pettit and Western 2004), and census data using a synthetic cohort approach and life table calculations (Raphael 2005).¹ The BJS estimates that lifetime incarceration risks have more than doubled for black men for more recent cohorts. Examining the birth-cohort differences in the risks of incarceration in the PSID sample, I find that the younger cohorts born in the 1960s and early 1970s have roughly 70 percent (7 percentage points) higher lifetime risks of incarceration relative to those born in the 1950s.

One key aspect of the PSID is the information on parental histories of criminal involvement and risky behaviors that might influence children's early formation of these behaviors. There is a paucity of nationally repre-

Table 6.1 *Cumulative Risk of Criminal History, Incarceration, or Death by Age Thirty-Five to Forty, by Race and Education*

| | All | High School Dropout | High School Grad/GED | All Noncollege | Some College+ |
|-----------------------------------------------|-------|---------------------|----------------------|----------------|---------------|
| Cumulative risk of death or incarceration (%) | | | | | |
| Black men | 30.25 | 65.71 | 27.98 | 39.89 | 10.44 |
| White men | 11.60 | 42.19 | 11.58 | 18.89 | 4.37 |
| Cumulative risk of incarceration | | | | | |
| Black men | 25.28 | 50.81 | 26.38 | 33.69 | 8.65 |
| White men | 8.57 | 29.03 | 9.53 | 13.97 | 3.34 |
| Cumulative risk of criminal history** | | | | | |
| Black men | 34.44 | 55.27 | 31.20 | 38.39 | 25.01 |
| White men | 18.15 | 41.77 | 20.64 | 25.42 | 11.35 |
| Cumulative risk of deviant behavior*** | | | | | |
| Black men | 47.61 | 62.96 | 45.90 | 50.84 | 39.33 |
| White men | 24.13 | 53.31 | 27.29 | 33.08 | 15.91 |

Source: The sample consists of original-sample PSID males born between 1951 and 1975 who answered the criminal-history questions in the 1995 wave of the survey or were positively identified as incarcerated in any wave of the survey between 1968 and 2005. (blacks N = 1,207; whites N = 1,612). Incarceration includes individuals sentenced to jail or prison sometime during adulthood. All descriptive statistics are sample weighted to account for the oversampling of blacks and low-income families, to generate nationally representative estimates.

** "Criminal history" is defined as ever having been charged with a crime or incarcerated for a crime.

*** "History of deviant behavior" is defined as ever having been charged with a crime, incarcerated for a crime, or suspended or expelled from school.

sentative longitudinal data sets with information on both children and their parents that are large enough to have reasonable sized subsets of children with parents with a criminal history—the PSID is a rare exception.

For the PSID original sample of males born between 1951 and 1975, I first document, among their offspring (born sometime over the subsequent period from 1968 to 2005), the proportion that had a father with an incarceration history. Among the 1951 to 1975 birth cohort who became

fathers, I calculate the proportion with an incarceration history, criminal record, and deviant-behavior history, separately by race-ethnicity and educational attainment. Table 6.2 presents these descriptive results for their children. As shown in table 6.2, I find that 20 percent of black children had a father with an incarceration history; among black children with fathers who did not graduate from high school, an alarmingly 33 percent of their fathers had an incarceration history. The differences in the risk of paternal incarceration are more closely linked to racial differences than parental-education differences. For example, black children whose fathers attended college were only slightly less likely to experience paternal incarceration than white children whose fathers were high-school graduates but did not attend college. It is important to note that these are likely lower-bound estimates because we identify only those parents who lived with the child at some point during childhood.

The use of the PSID-CDS data paints a similar picture regarding how often black and white children experience parental incarceration, and how this risk varies within racial-ethnic groups. Comparing these statistics for these recent birth cohorts to older cohorts from other data sources demonstrates how significantly the risk has changed over the past twenty-five years. For example, sociologist Christopher Wilderman (2006) uses criminal-justice data and vital-statistics data to estimate the risk of paternal incarceration during early childhood for the 1978 and 1990 U.S. birth cohorts. He reports that roughly one in nine black children born in 1978 could expect to have their father incarcerated before their ninth birthday, and nearly one in five black children from the 1990 birth cohort could expect the same—an increase of nearly 60 percent over only a twelve-year period.

Using the PSID-CDS, I also examine the proportion of children who have a parent or other 1968 descendent family member with an incarceration history, criminal-involvement history, or deviant-behavior history. These results show that black children, on average, have one person in their immediate or extended family with an incarceration history and roughly three family members with a deviant-behavior history (that is, either expelled from school, criminal record, or incarceration history).

Table 6.3 presents the average change in the child's family income as well as the change in the probability that the child is living in poverty between the years immediately before, during, and after the release of a father from prison or jail. Family poverty status is assessed by matching a child's total family income with corresponding poverty thresholds (based on income and family size). I find that the proportion of children growing up poor increases by 8.5 percentage points (from 22.3 to 30.9) in the years during the father's incarceration spell as compared with the years immediately before the incarceration spell. This significant increase only mod-

Table 6.2 *Children with Paternal Criminal History, Incarceration, or Death, by Race and Fathers' Education*

| | All | High School Dropout | High School Grad/ GED | All Non-college | Some College+ |
|--------------------------------------------------------|-------|---------------------|-----------------------|-----------------|---------------|
| Cumulative risk of paternal death or incarceration (%) | | | | | |
| Black children | 20.74 | 34.82 | 22.22 | 25.59 | 10.72 |
| White children | 10.71 | 23.69 | 12.77 | 15.38 | 5.35 |
| Cumulative risk of paternal incarceration | | | | | |
| Black children | 18.66 | 32.20 | 19.51 | 22.91 | 9.89 |
| White children | 10.10 | 23.06 | 11.57 | 14.33 | 5.26 |
| Cumulative risk of paternal criminal history** | | | | | |
| Black children | 23.21 | 36.25 | 23.51 | 26.93 | 15.53 |
| White children | 16.67 | 30.51 | 19.10 | 21.84 | 10.74 |
| Cumulative risk of paternal deviant behavior*** | | | | | |
| Black children | 38.41 | 46.15 | 43.54 | 44.24 | 26.35 |
| White children | 25.69 | 50.76 | 28.72 | 34.01 | 16.15 |

Source: The sample consists of the next-generation children whose fathers were original-sample PSID members born between 1951 and 1975, lived with them in at least one year between 1968 and 2005, and who answered the criminal-history questions in the 1995 wave of the survey or were positively identified as incarcerated in any wave of the survey between 1968 and 2005. (black children N = 1,708; white children N = 2,626). All descriptive statistics are sample weighted to account for the oversampling of blacks and low-income families, to generate nationally representative estimates.

** "Criminal history" is defined as ever having been charged with a crime or incarcerated for a crime.

*** "History of deviant behavior" is defined as ever having been charged with a crime, incarcerated for a crime, or suspended or expelled from school.

Table 6.3 *Child Family Income Immediately Before, During, and After Father's Prison Release*

| | |
|------------------------------------|----------|
| Child family income (1997 dollar) | |
| Year before father's incarceration | \$38,960 |
| Average during incarceration | \$30,234 |
| Year after release | \$33,100 |
| Difference*** (during—before) | -\$8,726 |
| Income-to-needs ratio | |
| Year before father's incarceration | 2.41 |
| Average during incarceration | 2.08 |
| Year after release | 2.43 |
| Difference* (during—before) | -0.33 |
| In poverty (%) | |
| Year before father's incarceration | 22.34 |
| Average during incarceration | 30.87 |
| Year after release | 24.40 |
| Difference*** (during—before) | 8.53*** |

Source: The sample consists of children born between 1985 and 2000 (from the PSID-CDS). Results use sample weights to generate nationally representative estimates.

*** $p < .01$; ** $p < .05$; * $p < .10$

estly declines in the first several years following the father's release. Similarly, we see family income decline by an average of \$8,726 (from \$38,960 to \$30,234) in the years during the incarceration spell (relative to the year prior to the incarceration spell), and the child's family income does not resume or regain its preincarceration level in the years following the fathers' release. The lack of data on fathers with an incarceration history who never lived with the child at anytime during childhood likely leads these estimates to be upwardly biased.

EMPIRICAL APPROACH

I examine the effects of parental incarceration on children's educational and behavioral outcomes using PSID-CDS, allowing for differential impacts for incarceration of the father and the mother. These data include a rich set of variables related to both the mother and the child, including parental criminal history and a set of standardized child cognitive assessments.

The dependent variables capture aspects of children's emotional well-being with three measures of child behavior: behavior problems index, externalizing behavior problems, and internalizing behavior problems. Each of these scales relies on maternal reports of children's behavior. In

addition, I assess the incidence of the child ever being expelled or suspended from school, disruptive behavior problems in school, school absenteeism, being placed in special education, and grade repetition. The child behavioral outcomes examined are important in part because early manifestations of problem behavior in children have been shown to often be a precursor to more serious involvement in deviant behavior in adolescence and criminal involvement in adulthood.

In both surveys, primary caregivers were asked to provide information on their children's behavior (for those ages three to seventeen years old), and how often they exhibited a particular problem. Particular behaviors were grouped together to create scales of internalizing (withdrawn or sad) and externalizing (aggressive or angry) behaviors.² While I do not devote substantial attention to age variation in the behavior problems index, it is recognized that a high score may mean something different for a six-year-old child than for a seventeen-year-old child.

I first document a simple correlation between parental incarceration history and child behavior problem indices. I then attempt to identify whether this simple relationship is causal. To this end, various empirical approaches are used to address potential omitted variables bias, including the estimation of hierarchical random-effects models with an extensive set of controls.

Table 6.4 presents simple descriptive statistics for the child behavior problems index by the parents' most severe offense (incarceration, booked or charged with a crime, expelled or suspended from school, or none of these). The estimates indicate a substantial positive relationship between parental incarceration history and child behavioral problems. For example, the average child who has a parent with an incarceration history scores 0.55 to 0.83 standard deviations above the average behavior problems score of a child without any parental or family incarceration history (BPI = 7.7 among children with no family history of deviant behavior versus BPI scores between 10 and 11 among children with a parental incarceration history). Among children who have a father with an incarceration history, the proportion of children who have ever been expelled or suspended is 22.8 percent, compared to 4 percent among children without a family history of deviant behavior. We see similarly large differences when comparing children who have a mother with an incarceration history to children without any parental incarceration history.

Of course, children who experience parental incarceration are different from other children in a multitude of ways that may also contribute to the raw differences in child behavioral outcomes that we observe. Table 6.5 highlights this point by presenting a series of family and neighborhood characteristics for children who have parents with an incarceration history and those who do not. We see children from families with an incar-

Table 6.4 *Children's Outcomes Classified by Parents' Most Severe Deviant Behavior Offense*

| Child Outcome | No Family History of Deviant Behavior | Father's Most Severe Offense | | | Mother's Most Severe Offense | | |
|---------------------------|---------------------------------------|------------------------------|------------------|----------|------------------------------|------------------|----------|
| | | Incarceration | Criminal History | Expelled | Incarceration | Criminal History | Expelled |
| BPI—Total Score | 7.7087 | 10.0641 | 9.7221 | 9.4128 | 11.2655 | 10.5723 | 9.7247 |
| BPI—Internalizing | 2.8595 | 3.3683 | 3.3756 | 3.4490 | 4.2251 | 3.9445 | 3.4002 |
| BPI—Externalizing | 4.9828 | 6.9143 | 6.5391 | 6.1467 | 7.3797 | 6.9755 | 6.5590 |
| Expelled or Suspended (%) | 4.19 | 22.83 | 6.87 | 7.31 | 14.33 | 9.29 | 22.96 |

Source: The sample consists of all CDS children who were interviewed in 1997 or 2002 and 2003. Family members include all descendent PSID extended family members; using PSID incarceration-history info through 2005. All descriptive statistics are sample weighted to account for the oversampling of blacks and low-income families, to generate nationally representative estimates.

Table 6.5 *Other Characteristics of Childhood Families Classified by Parents' Most Severe Deviant Behavior Offense*

| | No Family History of Deviant Behavior | Father's Most Severe Offense | | | Mother's Most Severe Offense | | |
|-------------------------------------------|---------------------------------------|------------------------------|------------------|----------|------------------------------|------------------|----------|
| | | Incarceration | Criminal History | Expelled | Incarceration | Criminal History | Expelled |
| Family background | | | | | | | |
| Family income (1997 dollar) | \$75,406 | \$52,500 | \$74,237 | \$48,571 | \$58,389 | \$58,021 | \$53,976 |
| Income-to-needs ratio | 4.55 | 3.19 | 4.45 | 2.96 | 3.76 | 3.96 | 3.26 |
| In poverty (%) | 4.98 | 19.33 | 5.83 | 10.77 | 11.10 | 7.12 | 8.31 |
| Mother's background | | | | | | | |
| Currently married | 86.52 | 68.56 | 89.87 | 82.54 | 71.82 | 72.11 | 75.83 |
| Mother's education (if mother is present) | 14.01 | 13.02 | 13.66 | 12.65 | 13.78 | 12.78 | 12.69 |
| Father's education (if father is present) | 14.09 | 12.51 | 13.32 | 12.51 | 13.77 | 13.55 | 12.67 |
| Religious | | | | | | | |
| Very | 23.95 | 8.55 | 7.14 | 23.02 | 50.82 | 0.85 | 1.44 |
| Moderately | 26.69 | 20.79 | 35.94 | 14.71 | 8.60 | 18.11 | 38.77 |
| Not at all | 49.36 | 54.10 | 40.54 | 51.33 | 27.21 | 55.94 | 45.19 |
| Family member with alcohol problem | 8.96 | 16.56 | 16.38 | 10.94 | 13.37 | 25.10 | 14.60 |

Table 6.5 (Continued)

| | Father's Most Severe Offense | | | | Mother's Most Severe Offense | | | |
|-----------------------------------|---------------------------------------|---------------|------------------|----------|------------------------------|------------------|----------|--|
| | No Family History of Deviant Behavior | Incarceration | Criminal History | Expelled | Incarceration | Criminal History | Expelled | |
| Neighborhood characteristics | | | | | | | | |
| Neighborhood quality (self-rated) | | | | | | | | |
| Excellent | 43.49 | 22.46 | 40.41 | 40.58 | 58.29 | 37.1 | 29.42 | |
| Very good | 36.44 | 45.10 | 33.41 | 38.80 | 16.82 | 42.79 | 34.50 | |
| Good | 14.38 | 22.85 | 19.32 | 13.50 | 23.52 | 10.82 | 20.40 | |
| Fair | 4.12 | 8.20 | 6.80 | 6.22 | 0.95 | 6.56 | 8.48 | |
| Poor | 1.57 | 1.39 | 0.06 | 0.90 | 0.42 | 2.73 | 7.20 | |
| Neighbor policing of drugs | | | | | | | | |
| Very high | 33.17 | 33.99 | 27.94 | 29.69 | 22.68 | 28.65 | 22.57 | |
| High | 8.38 | 10.95 | 14.24 | 10.10 | 0.42 | 8.17 | 9.81 | |
| Moderate | 13.95 | 13.39 | 19.70 | 13.82 | 24.64 | 14.83 | 8.91 | |
| Low | 44.50 | 41.67 | 38.12 | 46.39 | 52.26 | 48.35 | 58.71 | |

Source: The sample consists of all CDS children who were born between 1985 and 2000, and who were interviewed in 1997 or 2002 and 2003. Family members include all descendent PSID extended family members; using PSID incarceration history info through 2005. All descriptive statistics are sample weighted to account for the oversampling of blacks and low-income families, to generate nationally representative estimates.

ceration history are disadvantaged along many other dimensions. For example, compared with children who do not experience parental incarceration, children with a family incarceration history come from significantly poorer families, are more likely to be raised in single-parent families, more likely to grow up in worse-quality neighborhoods (particularly, neighborhoods with crime and drug-use problems), and have less-educated parents.

Perhaps the most important difference is that their family income was considerably lower. Poverty rates are 5 percent among children who had no family history of deviant behavior, compared to 19 percent for those children exposed to paternal incarceration. Based on the relationship between family income and child outcomes shown elsewhere (Duncan and Brooks-Gunn 1997), it may come as no surprise that children who have parents with an incarceration history have more behavioral problems.

The remainder of this analysis attempts to identify whether it is the parental incarceration itself that leads to greater child behavioral problems, or whether these other differences in family characteristics, including family income, are the main causal factors and mechanisms that link parental incarceration and child well-being.

Although the descriptive analyses in table 6.4 make a compelling *prima facie* case that there is a relationship between parental incarceration and child behavioral problems, children who experience parental incarceration differ from children who do not in both observable and unobservable ways. As well, an example of a potential source of omitted variable bias is that a drop in family income could lead both to a child experiencing lower levels of development investment and to a parent engaging in crime. In this chapter, I investigate whether parental incarceration precipitated the problematic behavior or merely aggravated and caused preexisting problems to become worse; another explanation is that parental incarceration merely represents a risk marker with no causal relationship links. Incarceration is often preceded by poverty, multiple mental-health problems, marital instability, absent fathers, child abuse and neglect, and substance abuse. The empirical design utilized in this study aims to distinguish selection effects preceding parental incarceration (preexisting risk factors) from direct, mediating, and moderating effects following the incarceration.

The empirical strategy relies on Ordinary Least Squares (OLS) estimation of a series of sequential specifications, with each specification including a unique and extensive array of family- and neighborhood-background variables. The empirical model specifications test for differential effects of parental incarceration by childhood life stage—early childhood (up to age five); middle years (ages six to ten); adolescence (ages eleven to seventeen)—and by length of parental incarceration exposure. The child-

development literature conceptualizes these ages as distinct stages of rapid growth in which parental resources may differentially matter. The hierarchical random-effects models highlight the significant heterogeneity in the effects of parental incarceration on child well-being.

This study employs several alternative model specifications to gauge the role of potential biases due to unobservable heterogeneity. First, parental incarceration experiences prior to birth are added to the regression model to test for bias due to unobserved parental factors.³ I compare children who experienced parental incarceration exposure sometime during childhood with children whose parents were only imprisoned before their birth. If the association between parental incarceration and child behavior problems was due mostly to genetic risk factors, then the timing of parental imprisonment would be of little importance for child outcomes.

If we assume that both the magnitudes of omitted variables and their effects are time invariant, then their influence on child behavior outcomes will be captured in part by controlling for the childhood stage-specific incarceration exposure. It is difficult to identify omitted variables correlated strongly with our child behavior outcomes and with incarceration in adolescent years that would not also correlate with incarceration at other stages. The usual suspects, such as genetic influences, are as likely to affect later and early childhood incarceration risks, and thus be controlled, in some degree, by the inclusion of incarceration in other childhood stages. Incarceration prior to the child's birth is included as a specification check to test for a spurious correlation; incarceration prior to birth obviously should not directly causally influence these outcomes in a well-specified model.

Some of our childhood conditions and socioeconomic factors were not measured prior to the parental imprisonment; as a result, we cannot determine whether they were present prior to the initial incarceration or were themselves the product of the subsequent incarceration experience. To the extent that parental incarceration actually caused these factors, the total impact of parental incarceration is underestimated by controlling for these childhood conditions in models shown in tables 6.6, 6.7, and 6.8.

REGRESSION RESULTS

The first column of table 6.6 presents the results of estimating a simple OLS model of the intergenerational relationships between parental deviant-behavior history and child behavior problem indices. These models include controls for self-rated neighborhood quality, extent of neighborhood policing of drugs (which may serve to proxy for neighborhood social cohesion), indicator variables for whether there is a family mem-

ber residing in household with an alcohol problem, parental religiosity, parental education, marital status, child gender, race-ethnicity, and age.

As shown in table 6.6, the results indicate that parental deviant-behavior history, including school expulsion, criminal record, or incarceration, is significantly associated with greater child behavioral problems, and the magnitudes are substantive. The patterns of results are similar across the child behavior problem outcomes. Paternal incarceration history and maternal deviant-behavior history are each associated with an increased likelihood that their children are expelled or suspended from school. The effects of other family members' incarceration or criminal history are not significantly related to child outcomes when the parents do not have such a history.

The results in table 6.6 also show that neighborhood quality, the extent of neighborhood policing of drugs, whether there is a family member residing in household with an alcohol problem, parental religiosity, parental education, and marital status are all independently significantly related to these child behavioral outcomes.

There is variation in the overall incidence and timing of parental incarceration exposure among children, including a significant portion that have parents with an incarceration history that occurred prior to the child's birth and not during their childhood years. If the association between parental incarceration exposure and child behavioral outcomes reflects a causal influence, then we should expect to see effects only when it occurs during the child's life. Exploiting this fact, these analyses test for the presence of unobserved heterogeneity bias by including parental incarceration that occurred prior to the child's birth as a model specification check.

Table 6.7 presents these model results. The results for the effects of parental incarceration pass this falsification test. In particular, the estimated effects of parental incarceration on child well-being are only significant when it occurs during childhood—the estimated effects of parental incarceration prior to birth are small and statistically insignificant. This pattern of results holds for all the behavior problem indices.

Up to this point, these analyses have considered the impact of exposure to parental incarceration at some point during childhood, yet recent research emphasizes the importance of the early childhood environment on subsequent outcomes (Johnson and Schoeni 2007). In table 6.8, I investigate whether the timing of parental incarceration exposure makes a difference for children's behavioral outcomes. The models estimated allow parental incarceration up to age five (preschool), between six and ten years old (middle years), and between eleven and seventeen (adolescence), to have differential effects on children. One might expect larger effects in the early childhood years, and during adolescence when role-modeling influences may be particularly salient.

Table 6.6 *Intergenerational Relationship of Parental Deviant-Behavior History on Child Behavior Problems*

| | Dependent Variable | | | |
|--------------------------------------------------------------------------------|------------------------|----------------------------|----------------------------|--------------------------------------------------------------|
| | BPI: Total Score | BPI: Internal- izing | BPI: External- izing | Probability (Expelled) Marginal Effects (Probit) |
| | (1) | (2) | (3) | (4) |
| Father's most severe offense (reference category: none) | | | | |
| Expelled from school | 0.6865* (0.3819) | 0.2289+ (0.1747) | 0.4477* (0.2590) | -0.0035 (0.0168) |
| Criminal history | 1.4157** (0.5705) | 0.3753+ (0.2603) | 1.0788*** (0.3775) | 0.0355 (0.0293) |
| Incarceration history | 1.0782** (0.4215) | 0.3930* (0.2022) | 0.7094** (0.2764) | 0.0804*** (0.0257) |
| Mother's most severe offense (reference category: none) | | | | |
| Expelled from school | 0.5340+ (0.3657) | 0.2063 (0.1716) | 0.3559+ (0.2344) | 0.0556*** (0.0171) |
| Criminal history | 1.8190** (0.9069) | 0.7572* (0.4383) | 1.2141** (0.5750) | 0.0441 (0.0392) |
| Incarceration history | 1.9130** (0.7890) | 0.8193** (0.3902) | 1.2157** (0.4841) | 0.0429+ (0.0311) |
| Other family members' most severe offense (reference category: none) | | | | |
| Expelled from school | -0.2912 (0.3544) | -0.1347 (0.1710) | -0.1824 (0.2295) | 0.0024 (0.0142) |
| Criminal history | -0.1528 (0.5959) | -0.1524 (0.2680) | -0.0230 (0.4256) | 0.0549+ (0.0337) |
| Incarceration history | 0.1736 (0.2825) | 0.1254 (0.1327) | 0.0336 (0.1840) | 0.0043 (0.0104) |
| Neighborhood quality (self-rated) (reference category: excellent) | | | | |
| Very good | 0.6077*** (0.2325) | 0.1856* (0.1123) | 0.4510*** (0.1516) | 0.0067 (0.0112) |
| Good | 1.2953*** (0.2695) | 0.4868*** (0.1286) | 0.8433*** (0.1754) | 0.0202+ (0.0128) |
| Fair | 1.8134*** (0.3394) | 0.6238*** (0.1676) | 1.2485*** (0.2171) | 0.0176 (0.0140) |
| Poor | 2.1535*** (0.6044) | 0.8429*** (0.2885) | 1.4180*** (0.3923) | 0.0267 (0.0245) |

Table 6.6 (Continued)

| | Dependent Variable | | | Probability (Expelled) Marginal Effects (Probit) |
|------------------------------------------------------------------|------------------------|----------------------------|----------------------------|--------------------------------------------------------------|
| | BPI: Total Score | BPI: Internal- izing | BPI: External- izing | |
| | (1) | (2) | (3) | (4) |
| Neighbor policing for drugs (reference category: very likely) | | | | |
| Likely | 0.4301+ (0.3017) | 0.2906** (0.1450) | 0.1191 (0.1963) | -0.0110 (0.0125) |
| Unlikely | 0.0593 (0.3039) | 0.0572 (0.1482) | 0.0180 (0.1974) | -0.0144+ (0.0111) |
| Very unlikely | 0.1897 (0.2387) | 0.0923 (0.1162) | 0.0960 (0.1550) | -0.0104 (0.0105) |
| Parental background factors | | | | |
| Family member with alcohol problem | 1.6100*** (0.3511) | 0.7448*** (0.1751) | 0.9120*** (0.2256) | 0.0239+ (0.0152) |
| Religiosity (reference category: very) | | | | |
| Somewhat | 0.3299 (0.2698) | 0.1994+ (0.1300) | 0.1223 (0.1793) | 0.0090 (0.0140) |
| Not at all | 0.5145** (0.2347) | 0.2205* (0.1150) | 0.2742* (0.1526) | 0.0027 (0.0111) |
| Mother's education | -0.1788*** (0.0583) | -0.0614** (0.0271) | -0.1233*** (0.0387) | -0.0064***, (0.0023) |
| Father's education (if present) | -0.1311** (0.0598) | -0.0391+ (0.0275) | -0.0953** (0.0402) | -0.0018 (0.0024) |
| Mother married | -1.0474*** (0.2263) | -0.4349*** (0.1090) | -0.6480*** (0.1474) | -0.0232** (0.0090) |
| Male | 0.8805*** (0.1875) | 0.1014 (0.0885) | 0.8023*** (0.1225) | 0.0639*** (0.0078) |
| Child age | 0.0386+ (0.0248) | 0.0829*** (0.0118) | -0.0451*** (0.0164) | 0.0180*** (0.0012) |
| Black (reference category: white) | -1.4361*** (0.2372) | -0.7982*** (0.1130) | -0.7018*** (0.1547) | 0.1072*** (0.0119) |
| Constant | 11.0090*** (0.9581) | 3.0873*** (0.4400) | 8.2235*** (0.6364) | |
| Child-year observations | 5542 | 5542 | 5542 | 4766 |

Source: Author's calculations.

Note: Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$, + $p < 0.20$.

Table 6.7 OLS Estimates of Impact of Parental Incarceration on Child Behavior Problems

| | Dependent Variable | | |
|----------------------------------------------------------------------|------------------------|-----------------------|-----------------------|
| | BPI: Total Score | BPI: Internalizing | BPI: Externalizing |
| | (1) | (2) | (3) |
| Parental incarceration prior to birth | 0.4201 (0.5179) | 0.0837 (0.2463) | 0.3630 (0.3365) |
| Parental incarceration sometime during childhood | 2.3433*** (0.6229) | 1.0604*** (0.3093) | 1.3864*** (0.3887) |
| Neighborhood quality (self-rated) (reference category: excellent) | | | |
| Very good | 0.5786** (0.2314) | 0.1781+ (0.1115) | 0.4259*** (0.1512) |
| Good | 1.2369*** (0.2695) | 0.4627*** (0.1286) | 0.8049*** (0.1756) |
| Fair | 1.8097*** (0.3373) | 0.6160*** (0.1668) | 1.2510*** (0.2159) |
| Poor | 2.1817*** (0.6123) | 0.8505*** (0.2922) | 1.4409*** (0.3963) |
| Neighbor policing for drugs (reference category: very likely) | | | |
| Likely | 0.4619+ (0.3019) | 0.3073** (0.1448) | 0.1350 (0.1968) |
| Unlikely | 0.1446 (0.3036) | 0.0916 (0.1479) | 0.0730 (0.1975) |
| Very unlikely | 0.2466 (0.2401) | 0.1189 (0.1164) | 0.1279 (0.1561) |
| Parental background factors | | | |
| Family member with alcohol problem | 1.7205*** (0.3525) | 0.7910*** (0.1752) | 0.9809*** (0.2266) |
| Religiosity (reference category: very) | | | |
| Somewhat | 0.2667 (0.2714) | 0.1673 (0.1306) | 0.0880 (0.1804) |
| Not at all | 0.4830** (0.2360) | 0.2048* (0.1150) | 0.2554* (0.1537) |

Table 6.7 (Continued)

| | Dependent Variable | | |
|--------------------------------------|------------------------|------------------------|------------------------|
| | BPI: Total Score | BPI: Internalizing | BPI: Externalizing |
| | (1) | (2) | (3) |
| Mother's education | -0.2083*** (0.0578) | -0.0734*** (0.0269) | -0.1422*** (0.0385) |
| Father's education (if present) | -0.1370** (0.0594) | -0.0404+ (0.0274) | -0.0988** (0.0397) |
| Mother married | -1.3012*** (0.2174) | -0.5093*** (0.1054) | -0.8417*** (0.1405) |
| Male | 0.8832*** (0.1881) | 0.1010 (0.0886) | 0.8049*** (0.1229) |
| Child age | 0.0286 (0.0249) | 0.0788*** (0.0118) | -0.0511*** (0.0165) |
| Black (reference category: white) | -1.4489*** (0.2330) | -0.8107*** (0.1105) | -0.7006*** (0.1524) |
| Constant | 12.0184*** (0.9166) | 3.4504*** (0.4230) | 8.8909*** (0.6088) |
| Child-year observations | 5542 | 5542 | 5542 |

Source: Author's calculations.

Note: Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$, + $p < 0.20$

The OLS results shown in the first column of table 6.8 reveal precisely this pattern. The results indicate that parental incarceration is associated with significantly greater behavioral problems at all stages of childhood, with the largest impacts found when incarceration exposure occurs during the adolescent and early-childhood years.

These results show that a child with a parent who is incarcerated during their childhood years exhibits significantly more behavioral problems. This result holds when we control for a wide range of observable family- and neighborhood-background characteristics, and it is not present when the incarceration exposure only occurred prior to the child's birth and not during their childhood years.

Table 6.8 *Impacts of Parental Incarceration by Childhood Life Stage on Child Behavior Problems*

| | Dependent Variable | | |
|----------------------------------------------------------------------|------------------------|-----------------------|-----------------------|
| | BPI: Total Score | BPI: Internalizing | BPI: Externalizing |
| | (1) | (2) | (3) |
| Parental incarceration exposure | | | |
| Parental incarceration prior to birth | 0.4128 (0.5217) | 0.0467 (0.2475) | 0.3929 (0.3384) |
| Parental incarceration between Age 0 and 5 | 2.0423** (0.8782) | 0.9604** (0.4503) | 1.1650** (0.5396) |
| Parental incarceration between Age 6 and 10 | 1.1947+ (0.8846) | 0.5774+ (0.4252) | 0.6896 (0.5592) |
| Parental incarceration between Age 11 and 16 | 3.9885*** (1.4554) | 1.5753** (0.7334) | 2.5866*** (0.9484) |
| Neighborhood quality (self-rated) (reference category: excellent) | | | |
| Very good | 0.5771** (0.2313) | 0.1817+ (0.1111) | 0.4203*** (0.1511) |
| Good | 1.2560*** (0.2692) | 0.4904*** (0.1283) | 0.7963*** (0.1754) |
| Fair | 1.8186*** (0.3367) | 0.6286*** (0.1664) | 1.2470*** (0.2154) |
| Poor | 2.2003*** (0.6105) | 0.8683*** (0.2915) | 1.4421*** (0.3954) |
| Neighbor policing for drugs (reference category: very likely) | | | |
| Likely | 0.4719+ (0.3016) | 0.3139** (0.1439) | 0.1390 (0.1965) |
| Unlikely | 0.1574 (0.3031) | 0.0948 (0.1473) | 0.0831 (0.1975) |
| Very unlikely | 0.2324 (0.2390) | 0.1006 (0.1152) | 0.1319 (0.1558) |

Table 6.8 (Continued)

| | Dependent Variable | | |
|----------------------------------------|------------------------|------------------------|------------------------|
| | BPI: Total Score | BPI: Internalizing | BPI: Externalizing |
| | (1) | (2) | (3) |
| Parental background factors | | | |
| Family member with alcohol problem | 1.7194*** (0.3515) | 0.8011*** (0.1741) | 0.9690*** (0.2256) |
| Religiosity (reference category: very) | | | |
| Somewhat | 0.2899 (0.2700) | 0.1753+ (0.1294) | 0.1041 (0.1797) |
| Not at all | 0.5102** (0.2354) | 0.2150* (0.1139) | 0.2739* (0.1538) |
| Mother's education | -0.2092*** (0.0577) | -0.0724*** (0.0268) | -0.1442*** (0.0384) |
| Father's education (if present) | -0.1325** (0.0593) | -0.0385+ (0.0273) | -0.0959** (0.0396) |
| Mother married | -1.2921*** (0.2170) | -0.5099*** (0.1050) | -0.8311*** (0.1403) |
| Male | 0.8911*** (0.1884) | 0.1128 (0.0886) | 0.8008*** (0.1233) |
| Child age | 0.0784 (0.0667) | 0.1082*** (0.0327) | -0.0315 (0.0430) |
| Black (reference category: white) | -1.4283*** (0.2324) | -0.8042*** (0.1102) | -0.6861*** (0.1521) |
| Constant | 10.7154*** (1.4620) | 2.5439*** (0.7035) | 8.4921*** (0.9497) |
| Child-year observations | 5,542 | 5,542 | 5,542 |

Source: Author's calculations.

Note: Robust standard errors in parentheses.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$, + $p < 0.20$.

CONCLUSION

This study examines the intergenerational consequences of incarceration by examining the children of the next generation. It finds, using the PSID-CDS data, that the prevalence rates of parental incarceration at some point during childhood are significantly larger than point-in-time estimates. I find that 20 percent of black children had a father with an incarceration history; among black children with fathers who did not graduate from high school, an alarming 33 percent of their fathers had an incarceration history.

This study finds linkages between exposure to parental incarceration and child behavioral outcomes. These results suggest that parental incarceration exposure leads children to develop greater behavioral problem trajectories. The pattern of results is remarkably similar across all of the empirical model specifications utilized, including hierarchical random-effects models with an unusually extensive set of controls. This evidence bears on the question of the extent to which parental incarceration has exacerbated racial disparities in childhood and in early adulthood. Understanding if and how parental absence due to incarceration differs from separation (due to parental divorce or death) may prove instrumental in designing interventions with families that have an incarcerated parent (Johnson and Waldfogel 2002).

This study identifies some potential unintended negative consequences for children of incarceration policies designed to “get tough” on crime. A key goal of social-welfare policy in the United States should be to break the cycle of poverty and unemployment from one generation to the next. It is only by following the children of at-risk parents that we can know whether their developmental trajectories point toward a brighter economic future than the one their own parents once faced.

Imprisoning parents may cause greater deviant behavior and crime in the next generation, thereby contributing to the intergenerational transmission of criminal involvement. The extent to which parental incarceration causes deviant behavior problems and crime in the next generation is an important question for criminal-justice policy and sentencing policy to consider as a potential negative externality. If parental incarceration does lead to greater child behavior problems as the evidence in this chapter suggests, parenthood could be treated as an extenuating factor in sentencing, given concerns about the child’s well-being. As well, there should be a more extensive range of family- and child-support services offered when parental incarceration does occur. Future work is needed to improve our understanding of how social-welfare policies can protect children from some of the potential adverse effects of parental incarceration. Policymakers may need to consider the merits of provision of some form

of community-based sentencing as an alternative to noncustodial prison sentencing.

Future research should examine pathways through which parental incarceration may affect child well-being. It should examine whether the effects depend on the length of the parent's sentence and type of crime, paternal versus maternal incarceration, child developmental stage, differential effects for boys versus girls, internalizing versus externalizing behavioral problems, the amount of parent-child contact before imprisonment, and the amount of contact maintained during the incarceration spell. Other key issues include the explanations given to children about their parent's absence, children's experiences of stigma, levels of social support, socioeconomic status, race, and neighborhood disadvantage.

Criminologists Joseph Murray, Carl-Gunnar Janson, and David Farrington (2007) identify significant effects of parent imprisonment on boys' delinquency and behavior problems in England but not in Sweden. They speculate that the reasons for this cross-national difference may be the combined result of shorter prison sentences in Sweden, more family-friendly prison policies, a welfare-oriented juvenile justice system, and more sympathetic public attitudes toward crime and punishment. In Sweden, child welfare rather than punishment is the paramount concern in cases of child delinquency. There is more to learn from cross-national comparisons as well as variation within the United States due to differences in state social and prison policies. For example, the effects of parental incarceration could be compared between states with different policies on prisoner-family contact, average length of sentence, and social support provided to prisoners' families. Given the significant rise in parental incarceration in the United States (and disproportionate incidence among African American children), the coordinated efforts of courts, prisons, community and social-service agencies, schools, and policymakers informed by research evidence are requisite to develop and implement effective programs that will support children, families, and kin of incarcerated parents. There are currently no policies and programs targeting this subset of at-risk children. The societal-welfare implications warrant a major research agenda to further study these issues.

NOTES

1. The incarceration estimates contained in this chapter include individuals sentenced to jail or prison. The PSID survey data do not allow one to distinguish between jail and prison sentences. Thus, these estimates are not directly comparable to BJS estimates of the proportion of males who have ever served time in a state or federal prison, or the estimates by Steven Raphael (2005) using administrative records from the California prison system during the 1990s.

2. The internalizing behavior index includes the following behaviors, which are combined to create a continuous count of behaviors: child has felt loved, has been fearful or anxious, has been easily confused, has felt worthless, is disliked by other children, has been obsessed with thoughts, has been sad or depressed, has been withdrawn, has been clinging to adults, has cried too much, has felt others were out to get him or her.
3. This approach draws on the method used by Peter Gottschalk (1996) for examining the intergenerational correlation in welfare participation and used by Christopher Ruhm (2004) for analyzing the effects of parental employment and child cognitive development.

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