Parental Imprisonment, the Prison Boom, and the Concentration of Childhood Disadvantage*

Christopher Wildeman
Princeton University
Department of Sociology
Office of Population Research

Email: wildeman@princeton.edu
Telephone Number: 609-462-6797
4th Year Degree Candidate
Degree Expected: May 2008

Direct mail correspondence to Christopher Wildeman, Princeton University, Department of Sociology, 284 Wallace Hall, Princeton, NJ 08544. Direct email correspondence to wildeman@princeton.edu. An earlier draft of this paper was presented at the Probing the Penal State Conference, which was made possible through a grant from the Russell Sage Foundation. I would like to thank Bruce Western, Sara McLanahan, Josh Goldstein, Megan Comfort, Sofya Aptekar, and Christine Percheski for their help.

ABSTRACT

Imprisonment transformed the life-course of disadvantaged black men, but no research considers how parental imprisonment altered the social experience of childhood. This paper uses life-table methods and data from surveys of prison inmates and the National Vital Statistics Registry to estimate the risk of parental imprisonment by age nine for the 1978 and 1990 American birth cohorts. Estimates show that: (1) 3 percent of children born in 1978 and 6 percent of children born in 1990 experienced parental imprisonment; (2) 1 in 5 black children and 1 in 40 white children born in 1990 had a parent imprisoned; (3) race and class inequality in the risk of parental imprisonment is growing; and (4) 43 percent of black children of high school dropouts born in 1990 had a mother or father go to prison. Taken together, these estimates and estimates using longitudinal data indicate that parental imprisonment is emerging as a historically novel childhood risk that concentrates disadvantage among black children of low-education parents. Comparison to other childhood risks shows that parental imprisonment is less common than growing up poor or being born outside of marriage, but more common than entering foster care—at least for black children.

Estimates of the crime-fighting benefits of mass imprisonment vary, but researchers generally agree that the prison boom of the 1990s decreased crime (Becsi 1999; Levitt 1996; Marvell and Moody 1994; Spelman 2000; Useem, Piehl, and Liedka 2001; Western 2006:185). The growth of the American penal system is consequential not only for its effects on crime, however, but also for its effects on social inequality. Ex-prisoners marry less, earn less, and vote less than the never-imprisoned (Manza and Uggen 2006; Lopoo and Western 2005; Pager 2003; Western, Kling, and Weiman 2001; Western 2006). Studies of the social impact of the prison boom tend to focus on the life-chances of men who go to prison. I extend this analysis by studying children's risk of parental imprisonment. In a period of historically high imprisonment rates, parental imprisonment may have emerged as a novel collective experience for disadvantaged minority children.

This paper uses life-table methods and data from surveys of prison inmates and the National Vital Statistics Registry to estimate the risk of parental imprisonment for American children born in 1978 and 1990. Children born in 1978 are the first cohort to come of age during the prison boom. Children born in 1990 are the first to encounter historically high incarceration rates over their entire childhoods. Since race and class disparities in imprisonment are large, I also consider race and class inequality in the risk of parental imprisonment, reporting estimates of the risk of parental imprisonment for black and white children of parents with different levels of schooling.

Estimates of the risk of parental imprisonment show that: (1) 3 percent of children born in 1978 and 6 percent of children born in 1990 had a parent sent to prison; (2) 1 in 5

black children and 1 in 40 white children born in 1990 had a parent imprisoned; (3) race and class inequality in the risk of parental imprisonment is growing; and (4) 43 percent of black children of high school dropouts born in 1990 had a parent imprisoned. Synthetic cohort estimates demonstrate the robustness of birth cohort estimates. Applications to longitudinal data confirm the large risk of parental incarceration and racial inequality in this risk. Compared to other childhood events, parental imprisonment is not as common as being born outside of marriage or living in deep poverty, but more common for black children than entering foster care—the only other form of disadvantage considered that involves government intervention.

PARENTAL IMPRISONMENT AND CHILDHOOD DISADVANTAGE

The children of imprisoned parents are an at-risk group. They disproportionately have parents who did not finish high school and are drug-addicted, mentally ill, and criminally active (Mumola 2000:8-9). Because of these special characteristics, selection is the main obstacle to establishing causal relationships between parental imprisonment and children's subsequent disadvantage (Hagan and Dinovitzer 1999:128-130; Lopoo and Western 2005:724). Despite this obstacle, research suggests a number of avenues through which parental imprisonment disadvantages children (Hagan and Dinovitzer 1999).

Half of all imprisoned parents were living with their children before prison admission, so parental imprisonment may disadvantage children by removing a parent from the home (Mumola 2000:1). Children of incarcerated fathers tend to live with their mothers; children of incarcerated mothers tend to live with relatives outside of the

parental home (Johnson and Waldfogel 2004; Lowenstein 1986; Mumola 2000:3). The risk of entering foster care has become so large for children of incarcerated mothers that changes in the female incarceration rate explain 40 percent of the increase in foster care caseloads between 1985 and 2000 (Swann and Sylvester 2006:323). Incarceration also promotes union dissolution. Quantitative estimates indicate that incarceration increases the odds of union dissolution between 120 and 180 percent (Lopoo and Western 2005; Western 2006:165-166). Quantitative estimates may be inflated by endogeneity bias, but qualitative evidence corroborates the large effect of incarceration on separation and divorce (Edin 2001; Edin and Kefalas 2005; Edin, Nelson, and Paranal 2004; Nurse 2002, 2004). Since prison increases the risk of contracting HIV and ex-prisoners die at 3.5 times the rate of individuals of the same age, sex, and race, parental imprisonment may increase a parent's mortality risk (Binswanger et al. 2007; Johnson and Raphael 2006).

Removing a parent from the family also removes them from the family economy. Although adults' pre-incarceration earnings tend to be small (Kling 2006:867), they may be a large share of family income. Incarceration also diminishes post-release employment opportunities. Employers are half as likely to respond positively to job applicants with criminal records (Pager 2003:956), and incarceration may reduce wages by as much as 30 percent (Western 2006:119; Western et al. 2001:424). Parental incarceration also has indirect economic costs. The remaining parent may need to cut back work hours because of increased childcare demands (Hagan and Dinovitzer 1999). Maintaining contact with a prisoner is also expensive (Braman 2004; Comfort 2002, 2003, *Forthcoming*; Davis

1992). One study of a California prison shows that women spend an average of $300 per month communicating with imprisoned partners (Grinstead et al. 2001:66).

Having a parent sent to prison also stigmatizes families (Braman 2004). This stigma can affect children in a number of ways. Stigma may increase depression among caretakers, for instance (Braman 2004:198; Green et al. 2006). Children of incarcerated parents may become depressed and withdrawn; some develop hostility toward the criminal justice system (Braman 2004:60, 84). This animosity may explain some of the connection between parental incarceration and children's criminal activity and incarceration (Glueck and Glueck 1950; Hagan and Palloni 1990; Murray and Farrington 2005; Sampson and Laub 1993; West and Farrington 1977).

In sum, in the current period of high incarcerates rates, there are strong indications of the negative effects of incarceration for the children of those in prison. Still, we have no estimates of the risk of parental incarceration, and no estimates of how those risks vary across the U.S. population and across birth cohorts.

THE PRISON BOOM AND THE RISK OF PARENTAL IMPRISONMENT

Studies of incarceration indicate that the lifetime risk of imprisonment has grown drastically. The risk of imprisonment more than tripled between 1974 and 1997—up from 2 percent to 7 percent (Bonczar 2003:7). These risks are distributed unequally by race and class. Black men born in the late 1960s were 7 times more likely to have been imprisoned by the late 1990s than white men; high school dropouts were 12 to 16 times more likely to have been imprisoned than college-educated men (Pettit and Western

2004:162). Racial disparities in the risk of imprisonment have not increased, but class disparities have. The profound effect of race and class inequality produced extraordinary rates of incarceration among young black men with little schooling. Nearly 60 percent of black male dropouts had been to prison by the late 1990s (Pettit and Western 2004:162). Finally, black and white women had similar rates of growth in the risk of imprisonment; women's rate of change doubled that of men (Bonczar 2003:8).

Despite estimates of the lifetime risk of imprisonment, estimates of the risk of parental imprisonment provide a clearer picture of the effects of the prison boom on childhood disadvantage. If parental incarceration affects children, estimates of the risk of parental imprisonment show how many children are exposed to these effects. The social consequences of parental imprisonment are also more far-reaching than are the consequences of adult imprisonment. An estimated 721,500 adults were imprisoned in 1999, but 1,500,000 children had a parent imprisoned (Mumola 2000:2). To the extent that parental imprisonment affects disadvantaged children, it concentrates disadvantage.

Risks of parental imprisonment cannot simply be generalized from lifetime risks of imprisonment. Since strong family ties discourage criminal activity, the risk of imprisonment may be smaller for parents than non-parents (Giordano, Cernkovitch, and Rudolph 2002; Horney, Osgood, and Marshall 1995; Laub and Sampson 2004; Laub, Nagin, and Sampson 1998; Sampson and Laub 1990, 1993; Warr 1998). The risk of parental imprisonment may also be smaller than the lifetime risk of imprisonment because children are exposed to the risk of parental imprisonment for a shorter period of time. Racial inequality in the risk of parental imprisonment may be more pronounced

than inequality in the lifetime risk of imprisonment. The fact that imprisoned parents are ten percent more likely to be black and ten percent less likely to be white than imprisoned individuals with no children provides a glimpse into racial disparities in the risk of parental imprisonment (Mumola 2000:3). Racial disparities in the risk of parental imprisonment may also be larger because black children are especially likely to have young or unmarried parents (Ellwood and Jencks 2004; Morgan 2002:29; Nelson 2004).

To extend our understanding of childhood disadvantage, I estimate the risk of parental imprisonment to age nine for American children born in 1978 and 1990. I consider only up to age nine in order to differentiate childhood from adolescence. I focus on children born in 1978 and 1990 to look at cohort change. To capture class differences, I provide estimates by parental education. I consider black and white children to study race differences.

CALCULATING THE RISK OF PARENTAL IMPRISONMENT

Life-Table Methods

This paper uses life-table methods to calculate the cumulative probability of experiencing parental imprisonment by age nine for black and white American children born in 1978 and 1990. Although life-table methods were designed to study demographic processes like fertility and mortality, they can be extended to study other aspects of social life (see especially Rank and Hirschl 1999; Pettit and Western 2004).

Life-table methods can be used to produce birth cohort or period estimates of the risk of parental imprisonment. I focus on birth cohort estimates to study the effects of

rising incarceration rates, but I also report period estimates as robustness checks. Birth cohort estimates are produced by following a birth cohort through time and calculating the percentage of children having a parent sent to prison by a certain age. To calculate the probability that by age nine, a child's parent will go to prison, I first estimate the number of children who experience parental imprisonment at each age. Adding these age-specific events yields the number of children who have had a parent go to prison by their ninth birthday. Dividing the count of the children who have experienced parental imprisonment by the total number of children in the birth cohort yields the childhood probability of parental imprisonment. Using one data source from a single point in time yields period estimates that approximate the cumulative probability of parental imprisonment if the rates for that specific year were applied to a hypothetical birth cohort up to age nine. I also calculated birth cohort and period estimates of the cumulative probability of parental imprisonment by child's race and parental education.

Estimating Life-Table Parameters

The key figure for my analysis is the number of children having a parent imprisoned for the first time since their birth. I estimate this number using the Surveys of Inmates in State and Federal Correctional Facilities (Bureau of Justice Statistics 1993, 1994, 1997, 2004a). Representative surveys of the state prison population were conducted in 1979, 1986, 1991, and 1997. These surveys were supplemented with representative surveys of the federal prison population in 1991 and 1997. Since state prisoners make up 90 percent of prisoners (Pastore and Maguire 2003:479), the addition of federal prisoners

negligibly alters prisoners' characteristics. The surveys report whether prisoners have children, the age of their children, a history of the respondent's prison admission and release dates, and their race, sex, and education. Combining information on children's age with their parent's prison admission and release dates allows me to calculate age-specific risks of first-time parental imprisonment (Table 1). Since I have no data on the other parent's race, I assume that imprisoned black parents have black children, and imprisoned white parents have white children. Since surveys of inmates are conducted sporadically, I follow Pettit and Western (2004) in interpolating between surveys to estimate the yearly number of first-time experiences of parental imprisonment. Interpolating between survey years introduces error, so I also construct period estimates to demonstrate the robustness of my results.

[Insert Table 1 about here.]

Unfortunately, the Surveys of Inmates alone cannot provide a precise estimate of the number of prison admissions by child's age. The Surveys of Inmates are conducted early in the year, so they underestimate the total number of individuals imprisoned at the end of the year. I correct for this undercount by multiplying my estimate by the year-end prison population divided by the number of individuals surveyed (Maguire and Pastore 2001:503). The Surveys of Inmates also undercount prison stays under one year because they are conducted at only one point in time. In order to adjust for this undercount, I calculate an adjustment factor using data from the National Corrections Reporting

Program (Bureau of Justice Statistics 2004b). Since data from the National Corrections Reporting Program are only available after 1982, I apply the 1983 rates to the years between 1978 and 1982. There is little variation in the adjustment factor, so extrapolating introduces minimal error.

Inmate surveys yield estimates of the total number of children having a parent sent to prison by age nine, but they alone cannot estimate the cumulative percentage of children having a parent go to prison. In order to calculate the percentage of children having a parent go to prison, I need to know the size and characteristics of the 1978 and 1990 birth cohorts. Data from the National Vital Statistic's Natality Detail File provides this information (U.S. Department of Health and Human Services 1972-1998).

My analysis focuses on race and class inequality. Children are coded as black in the vital statistics data if either parent is black, white if both parents are white.[1] Coding children's race this way ensures that no child will be identified as black and white. It also produces conservative estimates of racial inequality in the risk of parental imprisonment. Little data are missing on parental race, but more data are missing on parental education. In 1978, paternal education was missing 24 percent of the time; in 1990, parental education was missing 22 percent of the time. I deal with missing data on father's education in three ways. First, I assume that fathers who are missing on education are comparable to men of the same race who report education—that data are missing completely at random. This likely overestimates paternal education, since mothers may be less likely to report low paternal education than high paternal education. Second, I

[1] Coding changes for Hispanics in the Natality Detail File make it impossible for me to accurately estimate the risk of parental imprisonment for this group. There are also coding changes in the Surveys of Inmates.

assume that fathers who are missing on education have similar levels of education to the mothers of their children. This probably underestimates paternal education, since mean paternal education exceeds mean maternal education (Table 2). A third method, used for estimates reported here, assumes that missing education is halfway between what the first and second assumptions predict. Similar results are obtained with the other methods.

Unlike traditional life tables, my estimates do not adjust for mortality. Mortality adjustments would negligibly alter my estimates for this young segment of the population (U.S. Department of Health and Human Services: 1984:9-11; 1994:8-10).

Changing Parental Education of Children Born in 1978 and 1990

Table 2 presents estimates of the percentage of black and white children born in 1978 and 1990 to parents who did not complete high school, completed high school only, had no college experience, and had some college experience. The group of parents with no college experience combines high school dropouts and high school graduates. Table 2 also presents estimates of the size of the 1978 and 1990 black and white birth cohorts.

There are large racial inequalities in parental education. Black children are much more likely to have parents who did not finish high school and less likely to have parents who have attended college. Parental education grew substantially for black and white children between 1978 and 1990. The percentage of black fathers who had not completed high school decreased 31 percent. The rate of change in the percentage of white children having high school dropout parents was less pronounced. Twenty-four percent less white children had high school dropout parents in 1990 than in 1978.

Educational attainment increased the most for black parents—especially at the lower end of the educational distribution. Low-education black parents in 1990 are a more select group than in 1978, and selection rather than the rising rate of incarceration in the population may be increasing the risk of parental imprisonment. I reduce the effects of selection bias by focusing on non-college parents and college parents. Black and white non-college parents' share of the population shrunk comparably, so focusing on these groups instead of high school dropouts minimizes the effects of selection bias. Although black children of high school dropouts are becoming more select, they still make up a non-negligible percentage of black children; one in four black children born in 1990 had a father who had not completed high school.

[Insert Table 2 about here.]

RESULTS

The Risk of Paternal, Maternal, and Parental Imprisonment

Table 3 presents estimates of the cumulative risk of paternal, maternal, and parental imprisonment. These estimates are calculated only for white and black births. This table also presents estimates of the cumulative risk of parental imprisonment for white and black children born in 1978 and 1990. Three percent of children born in 1978 experienced parental imprisonment by age nine. Between 1978 and 1990, the risk of parental imprisonment doubled. Six percent of children born in 1990 had a parent imprisoned by age nine.

The risk of paternal imprisonment was small for white children born in 1978—about 1 in 60—and grew modestly between 1978 and 1990. The risk of maternal imprisonment doubled between 1978 and 1990. Still, the risk of maternal imprisonment for white children was small. One in 1,000 white children born in 1978 experienced maternal imprisonment; one in 500 white children born in 1990 experienced maternal imprisonment. The risk of parental imprisonment increased 40 percent over this period, but the risk of having either parent imprisoned for white children was still only 1 in 40. Growth in the risk of parental imprisonment for white children was not as rapid as growth in the risk of lifetime imprisonment for white men. The yearly rate of growth in parental imprisonment was 25 percent smaller than the yearly rate of growth in the lifetime risk of imprisonment for white men (Pettit and Western 2004:161).

Racial disparities in imprisonment indicate that a larger percentage of black children will experience parental imprisonment. Black children born in 1978 had a 1 in 10 chance of having a father sent to prison by their ninth birthday. Nineteen percent of black children born in 1990 had their father imprisoned. This 90 percent increase over 12 years corresponds with a yearly rate of growth of nearly 4 percent. Raw differences in the risk of maternal imprisonment were smaller—up from under 1 percent to 2 percent. When these risks are combined, 10 percent of black children born in 1978 and 20 percent of black children born in 1990 had a parent sent to prison.

The estimates suggest three conclusions about race differences in the risk of parental imprisonment. First, blacks born in 1978 and 1990 were much more likely than whites to have a parent sent to prison. Blacks born in 1978 were six times more likely

than whites to have a parent sent to prison. Blacks born in 1990 were eight times more likely than whites to have a parent sent to prison. Second, racial disparities in the risk of parental imprisonment are larger than racial disparities in imprisonment rates and the lifetime risk of imprisonment. Blacks born in 1990 are 8.5 times more likely to have a parent imprisoned than whites. Black men's incarceration rate is 7.3 times the rate for white men, and black men are 7.1 times more likely to go to prison than white men (Pettit and Western 2004:161; Pastore and Maguire 2003:505). Third, racial disparity in the increase in the risk of parental imprisonment surpasses racial inequality in the increase in imprisonment rates for adults (Pettit and Western 2004:161). Fourth, parental imprisonment was uncommon for whites born in 1978 and 1990, but it was not uncommon for blacks born in 1990. Black children born in 1990 were only slightly more likely to have a college-educated father (27 percent) than to have a parent sent to prison (20 percent). Finally, even though white birth cohorts are four to five times the size of black birth cohorts, more black children had a parent sent to prison. About 58,000 black children and 45,000 white children born in 1978 had a parent imprisoned. By 1990, about 148,000 black children and 68,000 white children born in 1990 had a parent sent to prison. Amazingly, racial inequality in the number of children experiencing parental imprisonment increased sixfold between 1978 and 1990.

[Insert Table 3 about here.]

Table 4 reports the risk of paternal and maternal imprisonment by parental education for white and black children. For white children born in 1978, the risk of paternal imprisonment is small regardless of paternal education. White children of high school dropouts had a 1 in 30 chance of having their father sent to prison. The risk shrinks to 1 in 70 and 1 in 130 for white children of high school and college educated fathers. Among white children, risks of parental imprisonment grew most for those with non-college fathers. Their risk of paternal imprisonment increased 60 percent. For white children of college-educated fathers, the risk of paternal imprisonment grew 12 percent. Class inequality in the risk of paternal imprisonment grew for white children.

Whites born in 1978 and 1990 had a small risk of maternal imprisonment. The risk of maternal imprisonment for white children born in 1978 to high school dropouts was 1 in 500. By 1990, the risk had grown to 1 in 250. Although this rate of growth is large, white children of low-education mothers have little risk of maternal imprisonment. White children of college-educated mothers had even lower risk; about 1 in 1,000 of them had a mother imprisoned.

[Insert Table 4 about here.]

Class inequality in the risk of parental imprisonment was large not just for white children, but for black children as well. Black children born in 1978 whose fathers dropped out of high school had a one in five chance of experiencing paternal imprisonment. Although the risk of paternal imprisonment for black children of high

school and college educated fathers was lower, these risks were much larger than the risk of parental imprisonment for white children. The disadvantage of black children increased in the 1990 birth cohort. Nearly 2 in 5 black children of high school dropouts born in 1990 had their father imprisoned, up 106 percent since 1978. Since black children of high school dropouts are an increasingly select group, I also compare children of college and non-college parents. By 1990, the risk of paternal imprisonment for black children of high school dropouts was 22 percent. About 8 percent of children of college-educated parents had a parent sent to prison. Although these risks are dwarfed by the risk of paternal imprisonment for black children of high school dropouts, they are still much larger—and are growing faster—than the risk for comparable white children. The rate of growth in the risk of paternal imprisonment was similar for all black children.

For blacks born in 1978, the risk of maternal imprisonment ranges from 1 in 200 to 1 in 80. By 1990, the risk of maternal imprisonment had increased substantially. For black children of high school dropouts, the risk of maternal imprisonment was nearly 3 percent; the risk was 1 in 60 for black children of high school graduates. The rate of growth was larger for children of low-education mothers than high-education mothers.

Pettit and Western (2004:162) find that racial inequality in the lifetime risk of imprisonment held constant from 1979 to 1999. Tables 3 and 4 provide strong evidence for growing racial inequality in the risk of parental imprisonment. The evidence for growing class inequality is weaker. Class inequality in the risk of parental imprisonment clearly increased for whites. But class inequality in the risk of parental imprisonment has

not grown among blacks as it has for whites. Instead, the effect of rising incarceration rates has been broadly shared among all black children.

Although class inequality among black children has not increased, the disadvantage of black children of high school dropouts in the 1990 birth cohort is pronounced. Black children of high school dropouts are 180 percent more likely to experience paternal imprisonment than black children of high school graduates and 100 percent more likely to experience maternal imprisonment than black children of high school graduates. When these risks are combined, black children of high school dropouts have a 43 percent chance of having a mother or father sent to prison by age 9.

Robustness Checks

Constructing birth cohort estimates required interpolating between survey years. Interpolation introduces error into estimates, so I construct period estimates of the risk of parental imprisonment to check the robustness of my results. I calculate these sets of period estimates for 1979, 1986, 1991, and 1997. Table 5 compares period estimates to birth cohort estimates. Period estimates indicate that the risk of having a parent imprisoned is growing quickly, racial and educational inequality in the risk of parental imprisonment is also growing, and paternal imprisonment is nearly modal for black children of high school dropouts. Birth cohort estimates are slightly larger than period estimates, but these differences are negligible—especially since the 1978 birth cohort estimates line up well with the 1986 period estimates and the 1990 birth cohort estimates line up well with the 1997 period estimates. Since period estimates are overly

conservative when the risk of an event is growing quickly over time, these differences are of little concern. My estimates are robust to estimation strategies.[2]

[Insert Table 5 about here.]

Applications to Longitudinal Data

I supplement my analysis by estimating the risk of parental incarceration in the NLSY79, the NLSY97, and the Fragile Families and Child Wellbeing Study. All three datasets will produce higher estimates because they measure parental incarceration, which includes having a parent sent to jail. We can also expect the NLSY97 and Fragile Families to produce larger estimates than my figures because the children in these studies were born later, around 2000, and they over-sample high risk parents—many are young, unmarried, and reside in urban areas. Although the NLSY97 is nationally representative, the parents I consider were young, so their children are at elevated risk of parental incarceration. Estimates from the NLSY97 underestimate racial inequality in the risk of parental incarceration because black men are more likely to select out (Hernandez and Brandon 2002). Fragile Families should not underestimate racial inequality as much as the NLSY97 because Fragile Families mothers also report paternal incarceration.

Table 7 presents estimates of the risk of parental imprisonment for children in the NLSY79, the NLSY97, and the Fragile Families and Child Wellbeing Study. The risk of parental incarceration in the NLSY79 is somewhat larger than my estimates of the risk of

[2] There are a few surprising findings in Table 5. For instance, 1991 period estimates for black children of high school graduates and college-educated parents do not fit the trend from 1979 and 1997.

parental imprisonment for the 1978 birth cohort. Estimates using data from the NLSY97 also show the large risk of paternal incarceration for black children of low-education parents; nearly 40 percent of black children of high school dropouts had their father incarcerated. White children of high school dropouts are also at substantial risk of parental incarceration, but their risk is only 40 percent the risk for black children. Children of high-education parents in the NLSY97 appear to have no risk of parental incarceration because of the small number of high-education parents. Although the NLSY97 data are nationally representative, few parents who had children before 2001 completed high levels of education before becoming parents since many had children in their teens. The final set of estimates comes from the Fragile Families and Child Wellbeing Study. Not surprisingly, these estimates show a high risk of parental incarceration. The risk is especially large in this survey for white children. Estimates from longitudinal data demonstrate that large numbers of American children—especially children born to unwed parents, in urban areas, or to young parents—have a high risk of parental incarceration. Even when black and white children have young, unwed, urban parents, however, racial inequality in the risk of parental incarceration still exists.

[Insert Table 6 about here.]

The Relative Risk of Parental Imprisonment

To gain perspective, we might compare parental imprisonment to other important childhood events: being born outside of marriage; living in deep poverty; and entering

foster care. All of these events disadvantage children or signal that children are high-risk (Duncan and Brooks-Gunn 1999; Ellwood and Jencks 2004; Harden 2004). Table 7 presents estimates of the risk of experiencing these events for black and white children. The risks of being born outside of marriage are for American children born in 1984 (Ventura 1995:47-50). The risks of living in deep poverty—less than 50 percent of the poverty line—for children born 1968 to 1992 come from the PSID (Rank and Hirschl 1999:1063). I estimate the risks of entering foster care for children born in 1998 (U.S. Department of Health and Human Services 2006).

Large race disparities exist in the risk of being born outside of marriage, living in deep poverty, entering the foster care system, and having a parent imprisoned. The largest raw disparities are in the risk of being born outside of marriage—60 percent of black children and 14 percent of white children were born outside of marriage. In a relative sense, the largest racial inequality is in the risk of having a parent imprisoned. Black children were eight times more likely to experience this event than white children. The smallest differences were in the risk of entering foster care; 6 percent of black children and 2 percent of white children entered foster care.

The risk of parental imprisonment for black children is dwarfed by their risk of being born outside of marriage or living in deep poverty. Still, the risk of growing up poor probably didn't change rapidly over this time period, and the risk of being born outside of marriage was not growing as rapidly as the risk of parental imprisonment (Ellwood and Jencks 2004). While it is unlikely that parental imprisonment will ever touch as many lives as do growing up poor or growing up with a single parent, the large

risk of parental imprisonment for black children born in 1990 and its rapid growth suggest that parental imprisonment is emerging as a historically novel form of childhood disadvantage for black children of low-education parents.

Cohort change in the risk of parental imprisonment is important, but so is racial inequality in the risk of childhood disadvantage. The risk of parental imprisonment for black children is higher than the risk of many other forms of childhood disadvantage for white children. The percentage of black children born in 1990 who had a parent imprisoned (20.3 percent) is larger than the percentage of white children who were born outside of marriage, entered the foster care system, or had a parent imprisoned *combined* (18.4 percent). Black children are also three times more likely to have a parent imprisoned than they are to enter foster care. Since entering foster care is the only other form of disadvantage in which the government is involved, this comparison is illuminating.

[Insert Table 7 about here.]

DISCUSSION

Life table analysis of surveys of prison inmates showed that the risk of parental imprisonment doubled between 1978 and 1990. This represents a yearly rate of growth in excess of 3 percent. The analysis also showed pronounced race and class inequality in the risk of parental imprisonment. Black children born in 1990 were eight times more likely to have a parent sent to prison than white children; children born in 1990 to high school

dropouts were five times more likely to have a parent sent to prison than children of college-educated parents. In addition, race and class inequality in the risk of parental imprisonment grew—although educational inequality grew quickest for white children. The combination of race and class inequality in the risk of parental imprisonment profoundly affected black children of high school dropouts. Over 43 percent of these children born in 1990 had a parent sent to prison by their ninth birthday. Estimates with longitudinal data confirmed racial disparities in the risk of parental incarceration—even when black and white parents are young, unmarried, and reside in urban areas. The risk of parental imprisonment is smaller than the risk of poverty or being born outside of marriage, but more than three times as common as entering foster care—at least for black children.

Growing racial inequality in the risk of parental imprisonment seems especially significant. Since racial inequality in the risk of imprisonment has not grown for adults (Pettit and Western 2004), how could racial inequality in the risk of parental imprisonment have increased? There are a number of possible explanations. First, the mean age at which black parents had children could have decreased relative to the mean age at which white parents had children. This could have been due to decreases in the mean age of fertility for blacks or increases for whites. Since the risk of imprisonment is largest for adults during their twenties (Pettit and Western 2004), this would further disadvantage black children compared to white children. Second, the protective effect of family ties may have been diminishing faster for blacks. Since black parents are increasingly less likely to have children within marriage, they may have missed out on

more of the crime-deterring benefits of family life in recent years (Ellwood and Jencks 2004; Giordano et al. 2002; Horney et al. 1995; Laub and Sampson 2004; Laub et al. 1998; Morgan 2002; Sampson and Laub 1990, 1993; Warr 1998). Whatever the cause, growing race and class inequality in the risk of parental imprisonment contributes to growing race and class inequality in the social experience of childhood. In so doing, it contributes to the diverging destinies of American children (McLanahan 2004).

What are the consequences of increased inequality in childhood? For black children and children of high school dropouts, the consequences are clear: diminished life-chances. The elevated risk of growing up poor, growing up with a single parent, and being stigmatized also diminishes the odds of successful adjustment in adolescence and adulthood (Cherlin 1999; Duncan and Brooks-Gunn 1999; Elder 1974; Elder, van Nguyen, and Caspi 1985; Sigle-Rushton and McLanahan 2004). One area in which parental imprisonment could have profound effects on social inequality in adulthood is in the risk of imprisonment. Connections between parental incarceration and children's subsequent criminal activity and contact with the criminal justice system are strong, so race and class inequality in the risk of parental imprisonment exacerbates race and class inequality in imprisonment in adulthood (Glueck and Glueck 1950; Hagan and Palloni 1990; Murray and Farrington 2005; Sampson and Laub 1993; West and Farrington 1977). In so doing, parental imprisonment may lay the foundation for an enduring form of inequality in which the large-scale incarceration of the disadvantaged is transmitted from one generation to the next.

REFERENCES

Becsi, Zsolt. 1999. "Economics and Crime in the United States." *Economic Review of the Federal Reserve Bank of Atlanta* 84:38-56.

Binswanger, Ingrid et al. 2007. "Release from Prison—A High Risk of Death for Former Prisoners." *The New England Journal of Medicine* 356:157-165.

Bonczar, Thomas. 2003. *The Prevalence of Imprisonment in the U.S. Population, 1974-2001*. Washington, DC: U.S. Department of Justice.

Braman, Donald. 2004. *Doing Time on the Outside: Incarceration and Family Life in Urban America*. Ann Arbor, MI: University of Michigan Press.

Bumpass, Larry, and Hsien-Hen Lu. 2000. "Trends in Cohabitation and Implications for Children's Family Contexts in the U.S." *Population Studies* 54:29-41.

Bureau of Justice Statistics. 1993. *Survey of Inmates of State Correctional Facilities, 1991*. [Computer file.] Conducted by U.S. Department of Commerce, Bureau of the Census. Ann Arbor, MI: Inter-university Consortium for Political and Social Research (producer and distributor).

------. 1994. *Survey of Inmates of State Correctional Facilities, 1986*. [Computer file.] Conducted by U.S. Department of Commerce, Bureau of the Census. Ann Arbor, MI: Inter-university Consortium for Political and Social Research (producer and distributor).

------. 1997. *Survey of Inmates of State and Federal Correctional Facilities, 1979*. [Computer file.] Conducted by U.S. Department of Commerce, Bureau of the Census. Ann Arbor, MI: Inter-university Consortium for Political and Social

Research (producer and distributor).

------. 2001. *Survey of Inmates of State Correctional Facilities, 1997*. [Computer file.] Conducted by U.S. Department of Commerce, Bureau of the Census. Ann Arbor, MI: Inter-university Consortium for Political and Social Research (producer and distributor).

------. 2004a. *Survey of Inmates of Federal Correctional Facilities, 1991*. [Computer file.] Conducted by U.S. Department of Commerce, Bureau of the Census. Ann Arbor, MI: Inter-university Consortium for Political and Social Research (producer and distributor).

------. 2004b. *National Corrections Reporting Program, 1983-2001.* [Computer file]. Conducted by the U.S. Department of Commerce, Bureau of the Census. Ann Arbor, MI: Inter-university Consortium for Political and Social Research (producer and distributor), 2004.

Cherlin, Andrew. 1999. "Going to Extremes: Family Structure, Child Wellbeing, and Social Science." *Demography* 36:421-428.

Comfort, Megan. 2002. "Papa's House: The Prison as Domestic and Social Satellite." *Ethnography* 3:467-499.

------. 2003. "In the Tube at San Quentin: The 'Secondary Prisonization' of Women Visiting Inmates." *Journal of Contemporary Ethnography* 32:77-107.

------. *Forthcoming*. "It's a Lot of Good Men behind Walls: Mass Incarceration and the Transformation of Romance in the United States." *Actes de la Recherche en Sciences Sociales*.

Davis, Ann. 1992. "Men's Imprisonment: The Financial Costs to Women and Children." Pp. 74-85 in *Prisoner's Children: What Are the Issues?*, edited by Robert Shaw. London: Routledge.

Duncan, Greg, and Jeanne Brooks-Gunn, eds. 1999. *Consequences of Growing Up Poor*. New York, NY: Russell Sage Foundation.

Edin, Kathryn. 2001. "Few Good Men: Why Low-Income Women Don't Marry." *The American Prospect* 11:26-31.

Edin, Kathryn, and Maria Kefalas. 2005. *Promises I Can Keep: Why Poor Women Put Motherhood before Marriage*. Berkeley, CA: University of California Press.

Edin, Kathryn, Timothy Nelson, and Rechelle Paranal. 2004. "Fatherhood and Incarceration as Potential Turning Points in the Criminal Careers of Unskilled Men." Pp. 46-75 in *Imprisoning America: The Social Effects of Mass Incarceration*, edited by Mary Patillo, David Weiman, and Bruce Western. New York: Russell Sage Foundation.

Elder, Glen, Jr. 1974. *Children of the Great Depression*. Chicago: University of Chicago Press.

Elder, Glen, Tri van Nguyen, and Avshalom Caspi. 1985. "Linking Family Hardship to Children's Lives." *Child Development* 56:361-375.

Ellwood, David, and Christopher Jencks. 2004. "The Uneven Spread of Single-Parent Families: What Do We Know? Where Do We Look for Answers?" Pp. 3-77 in *Social Inequality*, edited by Kathryn Neckerman. New York: Russell Sage Foundation.

Giordano, Peggy, Stephen Cernkovich, and Jennifer Rudolph. 2002. "Gender, Crime, and Desistance: Toward a Theory of Cognitive Transformation." *American Journal of Sociology* 107:990-1064.

Glueck, Sheldon, and Eleanor Glueck. 1950. *Unraveling Juvenile Delinquency*. Cambridge, MA: Harvard University Press.

Green, Kerry et al. 2006. "The Impact of Adult Sons' Incarceration on African American Mothers' Psychological Distress." *Journal of Marriage and the Family* 68:430-441.

Grinstead, Olga et al. 2001. "The Financial Cost of Maintaining Relationships with Incarcerated African-American Men: A Survey of Prison Visitors." *Journal of African-American Men* 6:59-70.

Hagan, John, and Ronit Dinozitzer. 1999. "Collateral Consequences of Incarceration for Children, Communities, and Prisoners." *Crime and Justice* 26:121-162.

Hagan, John, and Alberto Palloni. 1990. "The Social Reproduction of a Criminal Class in Working Class London, Circa 1950-1980." *The American Journal of Sociology* 96:265-299.

Harden, Brenda Jones. 2004. "Safety and Stability for Foster Children: A Developmental Perspective." *The Future of Children* 14:30-47.

Hernandez, Donald, and Peter Brandon. 2002. "Who Are the Fathers of Today?" Pp. 33-62 in *Handbook of Father Involvement: Multidisciplinary Perspectives*, edited by Catherine Tamis-Lemonda and Natasha Cabrera. Mahwah, NJ: Erlbaum.

Horney, Julie, D. Wayne Osgood, and Ineke Haen Marshall. 1995. "Criminal Careers in

the Short-Term: Intra-Individual Variability in Crime and Its Relation to Local Life Circumstances." *American Sociological Review* 60:655-673.

Johnson, Elizabeth, and Jane Waldfogel. 2004. "Children of Incarcerated Parents: Multiple Risks and Children's Living Arrangements." Pp. 97-131 in *Imprisoning America: The Social Effects of Mass Incarceration*, edited by Mary Patillo, David Weiman, and Bruce Western. New York: Russell Sage Foundation.

Johnson, Rucker, and Steven Raphael. 2006. "The Effects of Male Incarceration Dynamics on AIDS Infection Rates among African-American Women and Men." Unpublished Manuscript.

Kling, Jeffrey. 2006. "Incarceration Length, Employment, and Earnings." *American Economic Review* 96:863-876.

Laub, John, and Robert Sampson. 2004. *Shared Beginnings, Divergent Lives: Delinquent Boys to Age 70*. Cambridge, MA: Harvard University Press.

Laub, John, Daniel Nagin, and Robert Sampson. 1998. "Trajectories of Change in Criminal Offending: Good Marriages and the Desistance Process." *American Sociological Review* 63:225-238.

Levitt, Steven. 1996. "The Effect of Prison Population Size on Crime Rates: Evidence from Prison Overcrowding Litigation." *Quarterly Journal of Economics* 111:319-351.

Lopoo, Leonard, and Bruce Western. 2005. "Incarceration and the Formation and Stability of Marital Unions." *Journal of Marriage and the Family* 67:721-734.

Lowenstein, Ariela. 1986. "Temporary Single Parenthood: The Case of Prisoners'

Families." *Family Relations* 35:79-85.

Maguire, Kathleen, and Ann Pastore, eds. 2001. *Sourcebook of Criminal Justice Statistics*. Retrieved April 20, 2006 (http://www.albany.edu/sourcebook/archive).

Manza, Jeff, and Christopher Uggen. 2006. *Locked Out: Felon Disenfranchisement and American Democracy*. New York, NY: Oxford University Press.

Marvell, Thomas, and Carlisle Moody. 1994. "Prison Population Growth and Crime Reduction." *Journal of Quantitative Criminology* 10:109-140.

McLanahan, Sara. 2004. "Diverging Destinies: How Children Are Faring under the Second Demographic Transition." *Demography* 41:607-627.

Morgan, S. Philip. 2002. "Characteristic Features of Modern American Fertility." *Population and Development Review* 22:19-63.

Mumola, Christopher. 2000. *Incarcerated Parents and Their Children*. Washington, DC: Bureau of Justice Statistics.

Murray, Joseph, and David Farrington. 2005. "Parental Imprisonment: Effects on Boys' Antisocial Behaviour and Delinquency though the Life-Course." *Journal of Child Psychology and Psychiatry* 46:1269-1278.

Nelson, Timothy. 2004. "Low-Income Fathers." *Annual Review of Sociology* 30:427-451.

Nurse, Anne. 2002. *Fatherhood Arrested: Parenting from within the Juvenile Justice System*. Nashville, TN: Vanderbilt University Press.

------. 2004. "Returning to Strangers: Newly Paroled Young Fathers and Their Children." Pp. 76-96 in *Imprisoning America: The Social Effects of Mass Incarceration*, edited by Mary Patillo, David Weiman, and Bruce Western. New York: Russell

Sage Foundation.

Pager, Devah. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108:937-975.

Pastore, Ann, and Kathleen Maguire, eds. 2003. *Sourcebook of Criminal Justice Statistics*. Retrieved April 20, 2006 (http://www.albany.edu/sourcebook).

Pettit, Becky, and Bruce Western. 2004. "Mass Imprisonment and the Life Course: Race and Class Inequality in U.S. Incarceration." *American Sociological Review* 69:151-169.

Rank, Mark, and Thomas Hirschl. 1999. "The Economic Risk of Childhood in America: Estimating the Probability of Poverty across the Formative Years." *Journal of Marriage and the Family* 61:1058-1067.

Sampson, Robert, and John Laub. 1990. "Crime and Deviance over the Life Course: The Salience of Adult Social Bonds." *American Sociological Review* 55:609-627.

------. 1993. *Crime in the Making: Pathways and Turning Points through Life*. Cambridge, MA: Harvard University Press.

Sigle-Rushton, Wendy, and Sara McLanahan. 2004. "Father Absence and Child Well-Being: A Critical Review." Pp. 116-158 in *The Future of the Family*, edited by Daniel Moynihan et al. New York: Russell Sage Foundation.

Spelman, William. 2000. "The Limited Importance of Prison Expansion." Pp. 97-129 in *The Crime Drop in America*, edited by Alfred Blumstein and Joel Walman. New York, NY: Cambridge University Press.

Swann, Christopher, and Michelle Sheran Sylvester. 2006. "The Foster Care Crisis: What

Caused Caseloads to Grow?" *Demography* 43:309-335.

U.S. Department of Health and Human Services. National Center for Health Statistics. *Vital Statistics of the United States, 1980: Life Tables*. 1984. Hyattsville, MD: U.S. Department of Health and Human Services.

------. *Vital Statistics of the United States, 1990: Life Tables*. 1994. Hyattsville, MD: U.S. Department of Health and Human Services.

------. *Natality Detail File, 1971-1997* [Computer files]. Hyattsville, MD: U.S. Department of Health and Human Services [producer], 1972-1998. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research (distributor), 2002.

------. *The AFCARS Report: Final Estimates for FY 1998 through FY 2002*. 2006. Retrieved November 16, 2006 (http://www.acf.hhs.gov/programs/cb).

Useem, Bert, Anne Morrison Piehl, and Raymond Liedka. 2001. "The Crime Control Effect of Incarceration: Reconsidering the Evidence." Final Report to the National Institute of Justice. Washington, DC: U.S. Department of Justice.

Ventura, Stephanie. 1995. *Births to Unmarried Mothers: United States, 1980-1992*. Hyatsville, MD: Department of Health and Human Services.

Warr, Mark. 1998. "Life-Course Transitions and Desistance from Crime." *Criminology* 36:183-216.

West, Donald, and David Farrington. 1977. *The Delinquent Way of Life*. London: Heinemann Educational.

Western, Bruce. 2006. *Punishment and Inequality in America*. New York: Russell Sage

Foundation.

Western, Bruce, Jeffrey Kling, and David Weiman. 2001. “The Labor Market Consequences of Incarceration.” *Crime and Delinquency* 47:410-427.

Table 1: Datasets Used to Construct Estimates of the Risk of Parental Imprisonment

Dataset	***Used to Calculate***
Surveys of Inmates in State and Federal Correctional Facilities (1979, 1986, 1991, 1997)	Proportion of prisoners imprisoned for the first time since child's birth in the last year by child's age
Sourcebook of Criminal Justice Statistics (2001)	Size of the year-end prison population
National Corrections Reporting Program (1983-2001)	Adjustment factor
Natality Detail File (1978, 1990)	Population at risk

Table 2: Percentage and Number of Black and White Children Born in 1978 and 1990 by Parental Education

	Born 1978				***Born 1990***			
	Fathers		Mothers		Fathers		Mothers	
	%	N	%	N	%	N	%	N
White Children	100	2,630	100	2,630	100	2,840	100	2,840
All Non-College	61	1,604	71	1,867	55	1,562	59	1,675
HS Dropout	23	605	32	841	17	483	23	653
HS Only	38	999	39	1,026	38	1,079	36	1,022
Some College	39	1,026	29	763	45	1,278	41	1,165
Black Children	100	550	100	550	100	728	100	728
All Non-College	78	42	82	451	73	532	74	539
HS Dropout	35	192	45	247	24	175	33	240
HS Only	43	237	37	204	49	357	41	299
Some College	22	121	18	99	27	196	26	189

Source: Natality Detail File from National Vital Statistics Registry (1978, 1990).
Note: The number of children in this table is expressed in thousands.

Table 3: Cumulative Risk of Paternal, Maternal, and Parental Imprisonment for Children Born in 1978 and 1990 by Child's Age and Race

Age (Years)	*Paternal (%)*	*Maternal (%)*	*Parental (%)*
All Children			
Born 1978			
0-2	0.9	0.0	0.9
3-5	2.0	0.2	2.2
6-8	3.1	0.2	3.3
Born 1990			
0-2	1.7	0.2	1.9
3-5	3.8	0.3	4.1
6-8	5.4	0.5	6.0
White Children			
Born 1978			
0-2	0.4	0.0	0.4
3-5	1.0	0.1	1.1
6-8	1.6	0.1	1.7
Born 1990			
0-2	0.7	0.1	0.8
3-5	1.5	0.1	1.6
6-8	2.2	0.2	2.4
Black Children			
Born 1978			
0-2	2.9	0.2	3.1
3-5	6.6	0.5	7.1
6-8	9.7	0.8	10.5
Born 1990			
0-2	5.9	0.4	6.3
3-5	13.1	1.1	14.2
6-8	18.4	1.9	20.3

Sources: Surveys of Inmates (1979-1997) and Natality Detail File (1978, 1990).
Note: The estimate for the cumulative risk of parental imprisonment presented is the high estimate and assumes that no children have both parents imprisoned. The conservative estimate is the cumulative risk of paternal imprisonment and assumes that all children with imprisoned mothers also have imprisoned fathers.

Table 4: Cumulative Risk of Paternal and Maternal Imprisonment for Children Born 1978 and 1990 by Child's Age, Child's Race, and Parental Education

	White Children		***Black Children***	
Age (Years)	Paternal (%)	Maternal (%)	Paternal (%)	Maternal (%)
Born 1978				
All Non-College				
0-2	0.6	0.0	3.5	0.2
3-5	1.4	0.1	8.1	0.5
6-8	2.1	0.1	11.7	0.8
HS Dropout				
0-2	1.4	0.0	6.2	0.3
3-5	2.2	0.1	13.7	0.7
6-8	3.2	0.2	19.1	1.2
HS Only				
0-2	0.4	0.0	1.4	0.1
3-5	1.0	0.1	3.5	0.3
6-8	1.4	0.1	5.8	0.4
Some College				
0-2	0.1	0.0	1.0	0.1
3-5	0.4	0.1	2.3	0.4
6-8	0.7	0.1	3.5	0.6
Born 1990				
All Non-College				
0-2	1.0	0.0	7.2	0.4
3-5	2.3	0.2	16.0	1.2
6-8	3.3	0.3	22.4	2.1
HS Dropout				
0-2	1.4	0.1	13.1	0.5
3-5	3.2	0.2	28.7	1.5
6-8	4.5	0.4	39.5	2.9
HS Only				
0-2	0.9	0.1	4.4	0.4
3-5	1.9	0.2	9.8	1.0
6-8	2.8	0.3	14.0	1.5
Some College				
0-2	0.2	0.0	2.3	0.3
3-5	0.5	0.0	5.2	0.7
6-8	0.8	0.1	7.6	1.1

Sources: Surveys of Inmates (1979-1997) and Natality Detail File (1978, 1990).

Table 5: Cumulative Risk of Paternal and Maternal Imprisonment by Age Nine Using Real and Synthetic Cohorts for Black and White Children by Parental Education

	Birth Cohort		*Period*			
Cumulative Risk	Born 1978	Born 1990	1979 Rate	1986 Rate	1991 Rate	1997 Rate
Paternal Imprisonment (%)						
White Children						
All Non-College	2.1	3.3	1.6	2.4	3.2	3.4
HS Dropout	3.2	4.5	2.6	4.2	3.9	4.8
HS Only	1.4	2.8	1.2	1.4	2.8	2.8
Some College	0.7	0.8	0.4	0.7	0.8	0.8
Black Children						
All Non-College	11.7	22.4	8.2	14.2	23.3	21.2
HS Dropout	19.1	39.5	12.0	24.0	31.5	39.3
HS Only	5.8	14.0	5.0	7.3	17.7	13.0
Some College	3.5	7.6	4.7	6.1	11.8	7.7
Maternal Imprisonment (%)						
White Children						
All Non-College	0.1	0.3	0.1	0.2	0.3	0.4
HS Dropout	0.2	0.4	0.1	0.3	0.3	0.4
HS Only	0.1	0.3	0.1	0.1	0.3	0.4
Some College	0.1	0.1	0.0	0.1	0.1	0.2
Black Children						
All Non-College	0.8	2.1	0.7	1.1	1.6	2.5
HS Dropout	1.2	2.9	0.9	1.5	1.9	3.8
HS Only	0.4	1.5	0.5	0.5	1.4	1.5
Some College	0.6	1.1	0.5	0.7	1.1	1.3

Sources: Surveys of Inmates (1979-1997) and Natality Detail File (1971-1997).
Note: Real cohorts figures use two of the surveys of inmates—the 1979 and 1986 for children born 1978 and the 1991 and 1997 for children born 1990. Synthetic cohort figures are based on one survey of inmates and eight years of vital statistics data.

Table 6: Cumulative Risk of Paternal and Maternal Imprisonment or Incarceration For Black and White Children by Parental Education

	Surveys of Inmates		*NLSY79*	*NLSY97*	*Fragile Families*
Cumulative Risk (%)	Born 78	Born 90	Born 79-86	Born 97-00	Born 98-00
Paternal Imprisonment					
White Children					
All Non-College	2.1	3.3	4.3	9.8	21.6
HS Dropout	3.2	4.5	8.2	15.6	30.8
HS Only	1.4	2.8	1.9	0.0	15.4
Some College	0.7	0.8	0.3	0.0	3.2
Black Children					
All Non-College	11.7	22.4	16.6	34.6	31.4
HS Dropout	19.1	39.5	26.4	38.8	42.3
HS Only	5.8	14.0	9.7	19.4	25.6
Some College	3.5	7.6	4.0	0.0	15.7
Maternal Imprisonment					
White Children					
All Non-College	0.1	0.3	0.6	1.2	6.4
HS Dropout	0.2	0.4	1.0	0.0	8.0
HS Only	0.1	0.3	0.2	2.0	5.4
Some College	0.1	0.1	0.0	0.0	1.5
Black Children					
All Non-College	0.8	2.1	1.1	1.8	4.9
HS Dropout	1.2	2.9	2.0	2.9	6.7
HS Only	0.4	1.5	0.3	0.0	3.2
Some College	0.6	1.1	0.4	0.0	1.9

Sources: Surveys of Inmates (1979-1997), Natality Detail File (1978, 1990), NLSY79, NLSY97, and the Fragile Families and Child Wellbeing Study.
Note: In the NLSY79, NLSY97, and Fragile Families data, the measure is of incarceration. For the NLSY97, the estimate produced is the cumulative risk of being incarcerated between 2000 and 2004 for individuals who became parents between 1997 and 2000. For the Fragile Families data, the risk is only estimated to age 5.

Table 7: Percentage of American Children Having Been Born Outside of Marriage, Lived in Deep Poverty, Entered the Foster Care System, or Had a Parent Imprisoned by Child's Race

	Black Children	White Children
Born Outside of Marriage (Born 1984)	60.3	13.6
Lived in Deep Poverty (Born 1968-1992)	36.0	6.6
Entered the Foster Care System (Born 1998)	6.3	2.4
Had a Parent Imprisoned (Born 1978)	10.5	1.7
Had a Parent Imprisoned (Born 1990)	20.3	2.4

Sources: Estimates of the percentage of American children born outside of marriage come from 1984 (Ventura 1995:47-50). Estimates of the percentage of American children having lived in deep poverty by age nine are based on a pooled sample of children born 1968-1992 from the PSID (Rank and Hirschl 1999:1063). Percentage of America children born in 1998 having entered the foster care system by age nine based on calculations using 1998 AFCARS data (U.S. Department of Health and Human Services 2006). This overestimates the risk of entering foster care since there is no way to identify first admissions and it applies to a later birth cohort.