

Consequences of Incarceration: A Multi-sample Analysis of Parent Relationship Status, Father Imprisonment, and Race in the United States¹

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ABSTRACT

The prison system in the United States has undergone a massive expansion over the last three decades. Despite the fact that this prison expansion disproportionately affects black and low-income families, it has remained on the periphery of the discussion of family structure change and instability among these groups. I estimate the association between male partner imprisonment and change in parent relationship status over time using two national datasets: The Fragile Families and Child Well Being Study and The National Longitudinal Survey of Youth 1979. I also give special consideration to racial differences in imprisonment and estimate the possible multiplicative effects of race on the association between parent relationship and male imprisonment. Preliminary findings highlight very strong associations between father imprisonment and parent relationship dissolution but also reveal racial differences in the likelihood of parents staying together after imprisonment.

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INTRODUCTION

The expansion of the prison system in the United States over the last three decades has drawn the attention of politicians, community activists, and scholars alike. While this expansion may have initially emerged as a way to preserve “law and order” and benefit communities, a conflation of historical circumstances from the erosion of the welfare state, to community activism, to the development of the criminal justice system, have brought about largely unanticipated consequences for individuals and communities (Gottschalk 2003). More researchers are beginning to examine the consequences of having spent time in prison for men’s socioeconomic status, marriage outcomes, and well-being. For example, imprisonment has been linked to worse employment prospects and earnings capacity for men, especially in the long-term (Pager 2003; Geller et al. 2006). However, fewer studies focus on the consequences of imprisonment for those individuals and family members who are closely tied to these men, i.e., partners and children.

I aim to estimate the possible fallout of mass imprisonment for families of men who have been in prison. Specifically, I estimate the association between male partner imprisonment and change in parent relationship status using two national datasets: The Fragile Families and Child Well Being Study and The National Longitudinal Survey of Youth 1979 (NLSY79).³ I give racial differences in imprisonment special consideration and estimate the possible multiplicative effects of race on the association between parent relationship and male imprisonment.

BACKGROUND AND SIGNIFICANCE

Mass Imprisonment in the United States. Imprisonment rates in the United States have grown so dramatically that some researchers and policy makers are calling this state a regime of mass incarceration (see, for example, Clear and Rose 2003). The numbers of men and women moving through state and federal correctional institutions in the United States are now at unprecedented levels. In 2005, a total of about 1,446,300 individuals were housed in a state or federal correctional facility compared to just 319,600 in 1980 (Pastore and McGuire 2007; see Figure 1).

[FIGURE 1 ABOUT HERE]

The number of individuals in prisons, however, does not demonstrate the true expansion of the correctional system in the United States over this period. The number of those in prison pales in comparison to the total number of individual under the correctional system (defined as prison, jail, parole, and probation) that grew by a factor of 3.8 from 1980 to 2005. In Figure 1, I plot the number of active duty military personnel over this same time period as a comparison group. At the beginning of this period, the active duty population was larger than the *total* correctional population, but by 1999, the number of

³ In future drafts of this paper, I intend to include analysis of the National Longitudinal Survey of Youth 1997.

active duty military and *prison* population actually converge. From an aggregate perspective, a stint in prison has become as common as answering the call of Uncle Sam. Clearly, the U.S. corrections system has become a much larger part of the life course experience of Americans over the past few decades (Pettit and Western 2004).

A closer look at patterns of incarceration shows that men and minority populations in the U.S. have been disproportionately represented in our prisons. For instance, between 1981 and 1998, the average imprisonment rates grew for both black and white men, but black male imprisonment rates are consistently 6.7 to 7.7 times higher than white male imprisonment rates.⁴ Pettit and Western (2004) found that 22 percent of black men born from 1965 to 1969 (who survived to 1999) were sent to prison during their lifetime compared to just three percent of non-Latino white men. They also found that imprisonment has also become more prevalent among men with lower educational attainment, indicating growing class inequality in imprisonment over time. From the 1980's through the 1990's, men's lifetime chances of imprisonment doubled, but most of this increase was experienced by men without a college education. While imprisonment spells are still rare events for whites and well-educated men, imprisonment has become commonplace in the lives of young black men with low educational attainment.

Consequences for Families. Family demographers have long been in the business of establishing links between childhood family characteristics, parent and child well-being, and later life outcomes of parents and children. Presumably, the mass imprisonment phenomenon has profound and possible long-term effects on families, yet relatively few researchers have attempted to measure the relationships between male imprisonment and family change/outcomes.

Male imprisonment is an institutional intervention in the lives of men that has the potential to alter the life trajectories of families, *not just individual prisoners*, in both direct and indirect ways. Imprisonment of partners and fathers can directly impact the lives of family members through the male's removal to prison and indirectly through the diminished employment and earnings capacity of partners/fathers who have been to prison. Incarceration will have the most impact on families where the parent was living at home with his/her children because it places a greater financial & care burden on the remaining parent (Sampson 1987).

Most prisoners (male & female) had children in 1997 (1.5 million children), and most imprisoned parents are unmarried (Mumola 2000). "Family attachments" among both black and white prisoners weakened in the 1980s and 1990s (Western et al. 2004b). The proportion of prisoners who were married fell, but proportions divorced and never married either stayed the same or increased. These changes, however, do not account for an increase in cohabitation over the same period.⁵

Incarceration and Relationship Dissolution. The growth in male imprisonment has

⁴ Correctional Populations of the United States data series

⁵ Accounting for cohabiting relationship when individuals are interviewed while incarcerated is difficult since cohabitation is based on physical residence rather than a legal or self-defined relationship status.

paralleled increases in female-headed households over time (Sabol and Lynch 2003; Western et al. 2004b). Female-headed households and the feminization of poverty have been the source of much political discussion and research; however, male incarceration has only been peripherally considered as a contributing factor to the increase in female-headed households. Increases in imprisonment rates can relate to the increase in female headed household in at least two ways. First, it can decrease the availability of quality partners in the marriage and cohabitation market. Male partners who have had a past incarceration are less likely to be in married or cohabiting relationships with the mothers of their young children (Western and McClanahan 2000; Waller and Swisher 2006).

Second, an incarceration spell can disrupt an existing relationship. Ethnographic studies have shown that father incarceration creates relationship stress and mental stress, as well as a heavy financial burden, on the families they leave behind (Braman and Wood 2003; Travis and Waul 2003; Edin and Kefalas 2005). In their study of low-income incarcerated fathers, Edin and colleagues (2004) found that parent relationships (marital and non-marital) rarely withstood the test of an incarceration spell. While the fathers believed that the relationships would have lasted if not for their incarceration, a separate study involving interviews with low-income mothers points to the fact that the fathers probably alienated the mothers of their children by engaging in criminal activity itself (Edin and Kefalas 2005). These findings suggest a complex relationship between incarceration and relationship dissolution. That is, incarceration may have a direct effect on relationship dissolution, but incarceration also may be related to relationship dissolution indirectly through its correlation with criminal activity.

Race Differentials. Whether intended or unintended, crime control policies in the United States will disproportionately affect minority and low-income families. If male imprisonment has negative consequences for families, the partners and children of black men with low-educational attainment will probably feel the effects of imprisonment policies most acutely. These consequences will also be most pronounced in poor minority communities because of the clustered nature of crime control in the U.S (Clear and Rose 2003; Sabol and Lynch 2003). In other words, arrests in the United States tend to be geographically concentrated, or clustered, in economically depressed and often isolated minority communities. Since these communities have born the brunt of the increase in imprisonment, individuals in these communities can be expected to disproportionately bear any consequences of this regime change. While the criminal justice system presumes that removal of criminals from a given area will lead to positive consequences, many are beginning to question whether these positive consequences hold when imprisonment reaches the high levels seen today in targeted communities (Clear 2002; Clear and Rose 2003).

Perhaps even more importantly, few studies have considered how the racially disparate nature of imprisonment in the United States could translate into racial differences in the consequences of imprisonment for families, partners and children. Other researchers have used male incarceration to predict separation in the Fragile Families and Child Wellbeing Study. Waller and Swisher (2006) find that a recent incarceration predicts separation after 36 months, but they do not account for the possible multiplicative effects

of race on the association between incarceration and relationship dissolutions. Similarly, Western (2006) follows these same couples over 12 months. His study is one of only a few that addresses the interaction of race and incarceration on family outcomes. Western's findings suggest that incarceration has a stronger effect on relationship dissolution for whites, but his measure of "ever incarcerated" does not account for whether the fathers' incarceration occurred during the span of the relationship being measured. Western (2006) also estimates the effect of male incarceration on divorce in the NLSY97 and finds no multiplicative effect of race on the association between incarceration and divorce. Western's limitation of the NLSY79 analysis to only married couples, coupled with the fact that few incarcerated men are married, means that Western estimates the interaction of race and incarceration on a highly selective sample. I improve on these studies by following family units in the Fragile Families over a longer period (36 month), accounting for multiplicative effects of race on the association between relationship dissolution and incarceration, and including cohabiting parents in my analysis of the NLSY79.

HYPOTHESES & ANALYTICAL APPROACH

My analysis focuses on the multiplicative effects of race on the association between incarceration and parent relationships using two samples. Specifically, I test the following hypotheses:

H1: Male incarceration after the birth of a child is positively associated with the dissolution of dyadic parent relationships (marriage, cohabitation, visiting relationships).

H2: The association between male partner imprisonment and parent-breakup will be stronger for blacks than for whites. Black families are more likely to live in communities that are both targeted by law enforcement, and socially and economically isolated. Parental imprisonment is, therefore, more likely to break up these families that are already more likely to be living with fewer social and economic resources from which to draw.

I use multivariate logistic regression to predict whether parents of children in the Fragile Families and Child Wellbeing Study and the National Longitudinal Survey of Youth 1979 are less likely to stay together after a father's incarceration spell. I present 2 multivariate regression models: a "main effects" model (H1) that can be compared to previous research on parent relationship dissolution, and an interaction model (H2) that estimates the multiplicative effect of race and incarceration on relationship dissolution.

$$Y_t = \beta_0 + \beta_{\text{Prison}}X + \beta_{\text{Race}}Z + \beta_{\text{Covar}}W + \varepsilon \quad (\text{Eq. 1})$$

$$Y_t = \beta_0 + \beta_{\text{Prison}}X + \beta_{\text{Race}}Z + \beta_{\text{Prison}*\text{Race}}XZ + \beta_{\text{Covar}}W + \varepsilon \quad (\text{Eq. 2})$$

Equation 1 defines the additive main effects model, where Y is an intact parental relationship at t months, the β 's are coefficients, X is father incarceration between child's birth (or 12 month follow up in Fragile Families) and t months, Z is father's race, W is a vector of covariates including family and parent characteristics, and ε is the error term. Equation 2 defines the multiplicative interaction models where XZ is added as the interaction term of (incarceration)*(race). I estimate the likelihood of parent relationship dissolution after 36 months (child is three years old) for both Fragile Families and NLSY79. I also estimate the likelihood of parent relationship dissolution after 120 months (child is ten years old) for NLSY79 data.⁶

While I attempt to establish associations between incarceration and relationship dissolution in the current research, I do not attempt to draw causal conclusions or propose a causal model. As mentioned above, ethnographic research has suggested that there may be a complex causal structure between criminality, incarceration and family transitions (Edin et al. 2004; Edin and Kefalas 2005). Unfortunately, the nature and quality of the NLSY79 and Fragile Families data do not allow me to create a complete event history of relationship transitions, criminal behavior, and incarceration spells. I hope to address causality in later versions of this paper using more detailed event history data from the NLSY97.

DATA

There is no one complete dataset that satisfies the sample and variable requirements for the study of parent relationships and imprisonment; therefore I turn to two different panel studies:

Fragile Families. The Fragile Families and Child Well Being Study (FF) is a longitudinal study that sampled about 5000 births in cities of 200,000 people or more from 1998-2000 with 12 and 36 month follow-ups.⁷ The FF study over-samples non-marital births, blacks, and Latinos and attempts to follow the entire family unit over time (that is, both parents and child). The FF also tracks "visiting" (non-cohabiting, non-married) relationships between parents, which is an unusual and beneficial feature of the study. While the study does allow for proxy reports on partner characteristics and behaviors, FF has large numbers of non-respondent fathers in their sample. I exclude families with mothers who did not participate in all three interviews. After list-wise deletion of missing data, I include 2502 black, white and Latino families in my FF analytical sample.⁸ Missing observations are mostly attributable to non-participation (mostly fathers) and sample attrition. Whenever possible, I impute other-parent reports to reduce item non-response bias. The analytical sample includes family units with parents

⁶ I also estimated the likelihood of parental relationship distribution after 60 month and at last interview for NLSY79 respondents. For the sake of brevity, these models are not presented in this paper.

⁷ Access to the 5 year follow-up is restricted at the time of the current analysis.

⁸ I am currently considering using multiple imputation methods to correct for missing data in Fragile Families.

who were married, cohabiting, or visiting at the 12 month follow-up. Parents who were broken up at the 12 month follow-up were not included in the sample. Fragile Families does not collect dynamic information on father incarceration until the 12 month follow-up. Unfortunately, this causes me to select my sample on more stable parent couples. I also exclude those who were reported as “other” race/ethnicity because of their small sub-sample size.

The National Longitudinal Survey of Youth 1979. The NLSY79 (1979-2004) is a nationally representative cohort of about 12,000 young baby-boomers (14-21 years old) that has been followed over 21 waves of data and from an earlier period than FF. NLSY79 contains black and Latino oversamples through 2004. Non-response in the NLSY79 is low; however, this study only has point-of-interview information on incarceration and (prior to 1990) cohabiting relationships. In order to make the sample structure of the NLSY79 match that of the FF study, I observe children of men from the NLSY79 cohort. Unfortunately, women in the NLSY79 do not report on husbands’ or partners’ imprisonment spells; therefore, I drop all children born to females in the 1979 cohort. I have a final analytical sample size of 7083 after list-wise deletion of missing data. These observations do include siblings. The sample includes children of men who were married or cohabiting at the time of the child’s birth.⁹

Dependent Variables. I estimate the association between male incarceration and parent relationship change. In Fragile Families, I operationalize relationship change (or non-change) as a binary indicator of whether parents were still romantically involved (that is, married, cohabiting, or visiting) at the 36 month follow-up. I use the mother’s report of relationship status at 36 month unless that report is missing. Due to small cell sizes in my interaction models, I chose not to use the *type* of parent relationship after 36 months as the dependent variable.¹⁰ Visiting and cohabiting relationships that transitioned to cohabitation or marriage were coded as relationship intact. Overall, 65 percent of parents who were romantically involved at the 12 month follow up were still together at 36 months (see Table 1). Only 39 percent fathers who were incarcerated between 12 and 36 months were still romantically involved with the mothers of their children compared to 67 percent of men who were not incarcerated during this period. Chi-squared tests show that these mean differences are statistically significant.

[TABLE 1 ABOUT HERE]

I define a comparable variable, a binary indicator of parents still together (married or cohabiting) at the child’s third birthday in the NLSY79. I also create an indicator for longer-term stability of whether parents are together at the child’s tenth birthday. Unlike Fragile Families, NLSY79 does not account for visiting relationships. NLSY79 collects

⁹ In future versions of this paper, I plan on including the National Longitudinal Survey of Youth 1997. The NLSY97 (1997-2006) is a sample of males and females ages 12-16 in 1997. The NLSY97 has more extensive event-history data on anti-social and risk behaviors, including criminal behavior, arrests, convictions, and incarceration spells. This data will allow me to attempt a dynamic analysis of relationship change and incarceration that may help tease out the causal structure of this relationship.

¹⁰ See Waller and Swisher (2006) for analysis of father’s risk behaviors and relationship type outcomes in Fragile Families.

event-history information on marital transitions and cohabitation transitions; however, cohabitation information is only collected at point-of-interview prior to 1990. As with the Fragile Families sample, cohabiting relationships that transitioned to marriage were followed and coded as still intact (unless the couple later breaks up). As shown in Table 2, 92 percent of children in the NLSY had parents who were still married or cohabiting at their third birthday. Only 75 percent of fathers who were incarcerated between their child's birth and third birthday were still romantically involved with the child's mother, while 93 percent of non-incarcerated fathers were still with the child's mother. Fewer parents overall were still married or cohabiting at the child's tenth birthday. Among children who had incarcerated fathers between 0 and 120 months, fewer than half had parents who were still together. Mean differences in whether parents stayed together by father incarceration are statistically significant.

[TABLE 2 ABOUT HERE]

Father Incarceration. I include two different indicators of father incarceration in both the Fragile Families sample and the NLSY79 sample. First, I include a binary indicator of whether a father was incarcerated after the child's birth. For the Fragile Families sample, there is a year lag so that this indicator actually measures whether a father was reported ever being incarcerated at 36 months but reported never being incarcerated at 12 months. I use both mothers' and fathers' reports of incarceration so that in cases of differing responses, I default to incarceration. Nine percent of fathers in Fragile Families were incarcerated between the 12 and 36 month follow-ups (see Table 1). In the NLSY79, I measure whether fathers were incarcerated between birth and 36 months, and birth and 120 months. NLSY79 only includes point-of interview reports of incarceration. That is, respondents who were interviewed in prison/jail were reported as incarcerated. This type of reporting underestimates the number of fathers who were incarcerated by potentially missing incarceration spells shorter than 12 months long from 1980 to 1994 and shorter than 24 months from 1996 to 2004. Two percent of fathers in the NLSY79 were incarcerated between their child's birth and 36 months (n=121), and five percent were incarcerated between their child's birth and 120 months (n=346) (see Table 2).

I also include indicators for whether a father was previously incarcerated. In the Fragile Families sample, this variable is defined as ever incarcerated before the 12 month follow-up. Thirty-two percent of the fathers in the Fragile Families sample were reported as having an incarceration before the 12 month follow-up (see Table 1). I define previous incarceration as incarceration prior to the child's birth in the NLSY79 sample. Five percent of fathers in the NLSY79 sample were incarcerated prior to their child's birth, and 34 percent of father's incarcerated between their child's birth and tenth birthday had also been incarcerated before the child was born.

Race. My analytical sample for the Fragile Families data is 24 percent white, 48 percent black, and 27 percent Latino (see Table 1). Nearly 60 percent of the incarcerated (12-36 months) group was black, while 26 percent were Latino, and only fifteen percent were white. Half of all black fathers in the sample reported ever having been in prison, while only one quarter of whites and one third of Latinos were ever in prison (not shown).

These distributions reflect larger patterns of incarceration by race seen in the U.S. population. Only five percent of white fathers were in prison between the 12 and 36 month follow-ups, which eleven and 11 percent of black and Latino fathers were in prison respectively. Chi-squared tests for mean differences in incarceration by race are statistically significant.

Other Covariates. For the Fragile Families sample analysis, I use mothers' background characteristics to increase sample size. The high rate of father non-participation in Fragile Families would limit my sample size if I used only fathers' characteristics.¹¹ Because mothers' and fathers' characteristics were highly correlated, I chose not to use both mothers' and fathers' reports for the same models. NLSY79 sample analysis uses father's background characteristics. Tables 1 and 2 show that families with fathers who are incarcerated after the child's birth have significantly lower socio-economic status than the overall samples and the non-incarcerated groups in both Fragile Families and NLSY79. Parent educational attainment is lower than both the overall sample and the non-incarcerated group for children with incarcerated fathers ($p < .05$). Parental age at birth is also significantly lower in the incarcerated groups.

Children of fathers who were incarcerated are significantly less likely to be born within a marital union in both NLSY and Fragile Families. Children of incarcerated fathers in the NLSY have a slightly higher parity, but this is not the case for children in the Fragile Families sample. I measure multiple-partner fertility in Fragile Families and find that the incarcerated group had a higher proportion of multiple-partner fertility. Incarcerated fathers were slightly, but significantly, more likely to have reported alcohol abuse in 1982,¹² but there is no significant difference in reporting that drug or alcohol use had negative consequences for one's relationships between non-incarcerated men and incarcerated men in the Fragile Families sample.

RESULTS

Hypothesis 1 (H1). Multivariate logistic regression estimates of the probability of parents remaining together t months after a child's birth provide support for Hypothesis 1. Table 3 (Main Effects) shows that fathers who went to prison between 12 and 36 month follow-ups were about 80 percent less likely to stay together with their partners at 36 months ($p < .001$) net of parent and family characteristics. This estimate suggests a strong association between father incarceration and parent relationship dissolution. Similarly, estimates from the NLSY79 sample show a 77 percent decrease in the odds of parents staying together after 36 months (see Table 4) and a 66 percent decrease in the odds of parents staying together after 120 months when fathers were incarcerated (see Table 5). Both of these estimates are highly statistically significant. A previous

¹¹ All Fragile Families models were also analyzed using fathers' background characteristics. The results were highly consistent with models using mothers' background characteristics.

¹² Drug and alcohol use information is not collected until 1982, and is not collected at each wave. For the sake of consistency, I use the 1982 report of alcohol abuse.

incarceration also has a strong and statistically significant relationship to parent relationship status after 36 months in the Fragile Families estimates ($\exp(b) = .60$) (See Table 3); however, the magnitude of this association is smaller in the NLSY79 30 month estimates ($\exp(b) = .82$) (see Table 4) and nearly non-existent in the NLSY79 120 month estimates (see Table 5). Previous incarceration is defined differently between these two samples, which may account for the differences in the estimates.

Compared to whites, black parents in Fragile Families are 40 percent less likely to stay together 36 months after their child is born (see Main Effects, Table 3). Latinos are actually 33 percent more likely to stay together than white parents, but this relationship is not significant. NLSY97 estimates (both 36 month and 120 month) of the association between race and parent relationship are highly consistent with estimates from Fragile Families (see Tables 4 and 5).

Other significant predictors of whether parents stayed together were whether the parents were married when the child was born. Estimates from both samples show that married parents were 2 to 5.5 times more likely to stay together. This finding is not surprising considering that marital relationships are generally more stable than cohabiting or visiting relationships. Multi-partner fertility in Fragile Families also predicted 35 percent lower odds of parents staying together. Again, this finding is not unusual considering the instability and relationship challenges experienced by many step and step-type families. Father's educational attainment has a significant positive association with parent staying together in the NLSY79 sample. An additional year of education yield a 4 percent increase in the odds of parents staying together after 36 months and a 6 percent increase after 120 months. Also, couples with missing income reports in Fragile Families are more likely to break up at 36 months.

[TABLE 3 ABOUT HERE]

[TABLE 4 ABOUT HERE]

[TABLE 5 ABOUT HERE]

Hypothesis 2 (H2). I hypothesized that, due to the concentrated nature of crime control in poor minority communities and the high level of minorities (specifically blacks) in the corrections system, the associations between father incarceration and parent relationship dissolution would be even *more* pronounced among blacks than whites. Estimates from both the Fragile Families and the NLSY79 samples, however, seem to *contradict* my hypothesis. While the main effects terms for father incarceration and race remain consistent with the additive model, and the overall association is negative, male incarceration actually has a much weaker association with parental relationship dissolution among blacks than it does for whites. This interaction term for black*prison is highly statistically significant for the Fragile Families 36 month estimates and the NLSY79 120

month estimates. This term is not statistically significant for the NLSY79 36-month estimates, which shows smaller differential.

[TABLE 6 ABOUT HERE]

On average, there is a .52 decrease in the probability of staying together for white couples in Fragile Families when the male partner has been to prison (see Table 6). For black couples, the overall average effect of father incarceration on staying together is still negative, but the effect is only 18 percent of that for white couples. The average effect of male incarceration is negative for Latinos in Fragile Families, but the magnitude of the effect of male incarceration on relationship dissolution is still 76 percent of the effect for whites.

For all men in the NLSY79, there is a negative overall effect of incarceration on staying with their partners after 36 months and after 120 months. At 36 months, the interaction term for incarcerated black fathers is non-significant, but only 85 percent of the effect for white men (see Table 6). After 120 months, the effect of incarceration for black men grows weaker compared to white men (66%) and is statistically significant. There are no significant interaction effects for Latino incarcerated men in the NLSY79 on relationship dissolution, and the differences in the average effect for Latinos and whites is very small.

DISCUSSION

Imprisonment in the United States has grown to unprecedented levels, and the consequences for individuals, families, and communities are only beginning to be assessed. Furthermore, race differentials in imprisonment concentrate the effects of mass incarceration onto minority populations, particularly poor blacks.

I hypothesized that incarceration would have a negative effect on parent relationships. Estimates of father incarceration and its association with parent relationship dissolution after 36 months and 120 months in Fragile Families and NLSY79 samples support this hypothesis. I also hypothesized that the association between parent relationship dissolution and male incarceration would be stronger for blacks than whites due to racial differentials in incarceration rates. Estimates from the Fragile Families and NLSY79 actually contradict this hypothesis, with black male incarceration having a weaker relationship to relationship dissolution when compared to white male incarceration. These results appear to be robust across samples and across time. My findings from the Fragile Families sample are also consistent with the findings of Western (2006). However, the relatively strong and statistically significant interaction between race and incarceration in the NLSY79 does differ sharply from Western's findings. This could possibly be due to my inclusion of cohabiting families in my estimates.

I propose three possible reasons for finding that incarceration has a stronger effect on the relationship distribution for whites than for blacks. First, incarceration may be

endogenous to relationship instability. That is, men who have a tendency towards criminal activity probably also tend to have unstable personal relationships. In fact, this is a likely scenario. With the current research I am unable to completely tease out the effect of incarceration itself on relationship dissolution. I was able to control for behaviors that may be endogenous to unstable families such as fathers' prior incarceration, multiple partner fertility, and father's risk factors such as drug/alcohol abuse.

I am currently researching instrumental variable methods to address the possible endogeneity of male incarceration and relationship change. The challenge of the instrumental variable approach is, of course, to identify an instrument that only predicts my relationship status variable via male incarceration. Other researchers have used state-implemented prison sentencing reforms as instrumental variables in models that used state-level imprisonment rates to predict marriage and employment (Myers and Wilkins 2002; Sabol and Lynch 2003). I may be able to use state or county level imprisonment, admissions, and release rates from the National Crime Reporting Program to create an instrument.

Second, this finding may point to unobserved heterogeneity between white incarcerated men and black incarcerated men in my current models. White men who are incarcerated may be more hard-core criminals and, therefore, worse partners, than black men who are incarcerated. Indeed, patterns of incarceration in Wisconsin show that black men are incarcerated mostly for drug crimes while whites are mostly incarcerated for violent crimes (Oliver 2008). A black man who has been incarcerated may be more likely to fit the profile of a "Regular Joe" than a white man who has been incarcerated.

Third, this finding could point to an increase in the perception of incarceration as more normative within the black population in the U.S. If this was the case, there would be a coinciding increase in the differentials between the interaction terms for black and whites. I do find some evidence for this increase. That is, the black-white differential is more pronounced in the Fragile Families estimates that come from a sample of children who were born much more recently than most of the children from the NLSY79 cohort. However, ethnographic research on families of incarcerated men cites a powerful stigma attached to these families despite the fact that incarceration may be commonplace in their particular communities (Braman and Wood 2003). These findings would suggest that incarceration, even for poor black men, is far from normative. In the future, I plan to account for the possible effects of stigma, possibly through propensity score matching of men who are removed from a household through incarceration (stigma present) and men who are removed from a household through military deployment (no stigma present).

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TABLES AND FIGURES

Figure 1. United States Correctional Population and Active Duty Military Population, 1980-2005
 (Sources: U.S. Department of Justice, Bureau of Justice Statistics; U.S. Department of Defense)

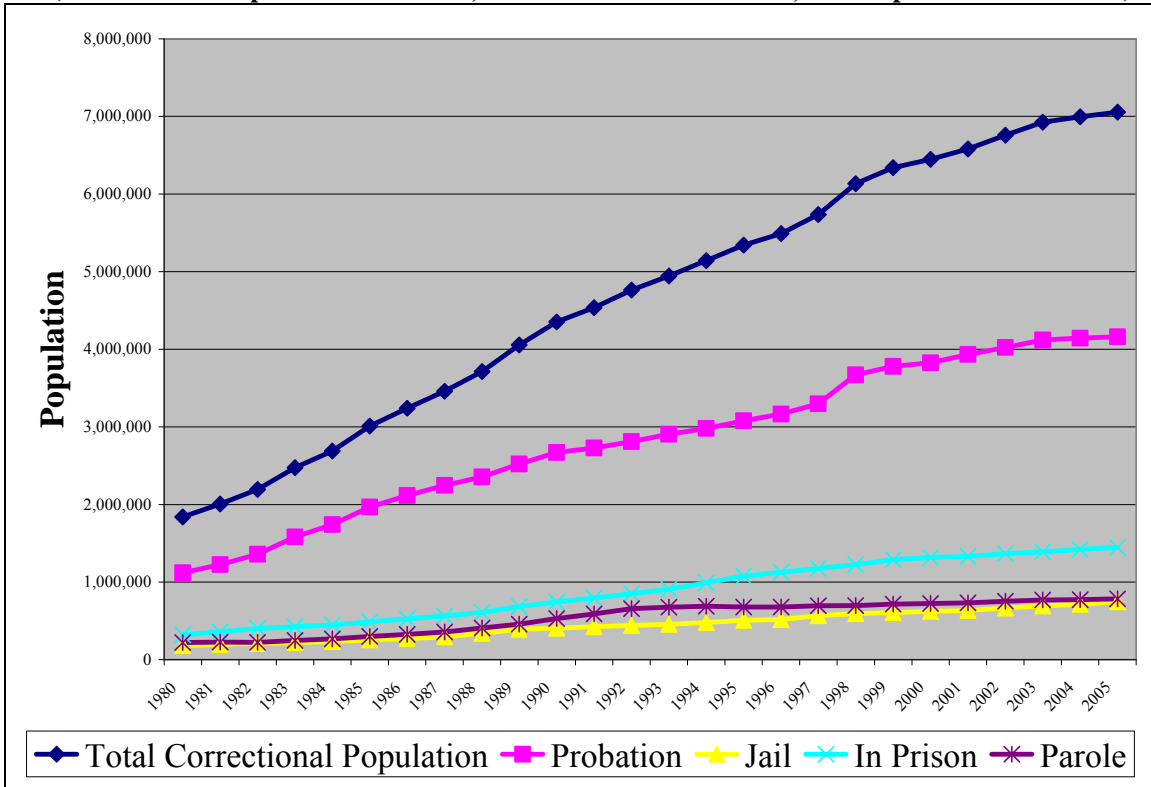


Table 1. Unweighted Descriptives by Father Incarceration After 12 mos, Fragile Families and Child Wellbeing Study (n=2502)

Variable	Total Sample		Not Incarcerated 12-36 mos		Incarcerated 12-36 mos	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Parents Together at 36mos	0.65 ^a	-	0.67	-	0.39	-
White	0.24 ^a	-	0.25	-	0.15	-
Black	0.48 ^a	-	0.47	-	0.58	-
Latino	0.27	-	0.27	-	0.26	-
Prison between 12 and 36 mos	0.09	-	0.00	-	1.00	-
Prison before 12 mos	0.32 ^a	-	0.35	-	0.00	-
Mom edu LTHS	0.32 ^a	-	0.32	-	0.37	-
Mom edu HS	0.31 ^a	-	0.30	-	0.35	-
Mom edu some col	0.25	-	0.25	-	0.26	-
Mom edu college	0.12 ^a	-	0.13	-	0.02	-
Household Income	31973.85 ^b	26368.07	32755.52	30476.37	23924.83	22875.57
Household Income (ln)	9.16 ^b	0.98	9.18	1.06	8.91	0.97
Income Missing	0.41 ^a	-	0.41	-	0.48	-
Mom age at birth	25.33	5.71	25.56	6.10	23.00	5.00
Mom age squared	678.25 ^b	313.04	690.34	339.76	553.70	266.12
Parity	1.60	0.94	1.61	0.92	1.55	0.88
Mom - mult part fert	0.37 ^a	-	0.36	-	0.46	-
Father drug problem	0.12	-	0.12	-	0.11	-
Marital Birth	0.28 ^a	-	0.30	-	0.12	-

^a Chi-squared test for mean differences by incarceration, $p < .05$

^b T-test for mean differences by incarceration, $p < .05$

Table 2. Unweighted Descriptives by Father Incarceration (0-120 mos), National Longitudinal Survey of Youth 1979 (n = 7083)

Variable	Total Sample		Not Incarcerated 0-120 mos		Incarcerated 0-120 mos	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Parents together at 36 mos	0.92 ^a	-	0.93	-	0.75	-
Parents together at 120 mos	0.77 ^a	-	0.79	-	0.46	-
White	0.59 ^a	-	0.60	-	0.32	-
Black	0.20 ^a	-	0.19	-	0.43	-
Latino	0.21	-	0.21	-	0.25	-
Father in prison 0-36 mos	0.02	-	0.00	-	0.35	-
Father in prison 0-60 mos	0.03	-	0.00	-	0.60	-
Father in prison 0-120 mos	0.05 ^a	-	-	-	-	-
Father in Prison before birth	0.05	-	0.04	-	0.34	-
Father's education (years)	12.63 ^b	2.63	12.72	2.63	10.71	1.81
Family Income	23598.07 ^b	50657.93	23878.06	48019.78	17772.82	89278.29
Family Income (ln)	9.47 ^b	1.24	9.53	1.16	8.37	2.05
Income missing	0.05	-	0.05	-	0.07	-
Father's age	28.11 ^b	5.47	28.24	5.47	25.47	4.66
Father's age-squared	820.18 ^b	323.99	827.48	325.19	670.16	256.25
Father drinking problem (1982)	0.06 ^a	-	0.05	-	0.06	-
Parity	2.03 ^b	1.15	2.00	1.12	2.49	1.47
Marital birth	0.90 ^a	-	0.91	-	0.66	-

^a Chi-squared test for mean differences by incarceration, $p < .05$

^b T-test for mean differences by incarceration, $p < .05$

Table 3. Logistic Regression of Parents still together at 36 Month follow-up, Fragile Families and Child Well Being Study

Covariates	Bivariate			Main Effects				Interaction				
	Odds Ratios		95% Conf. Intervals	Odds Ratios		95% Conf. Intervals	Odds Ratios		95% Conf. Intervals			
Race/ethn (omitted category: White)												
Black	0.3243	***	0.2500	0.4210	0.6088	**	0.4500	0.8230	0.5347	***	0.3850	0.7430
Latino	0.8066		0.5950	1.0930	1.3334		0.9490	1.8730	1.2525		0.8620	1.8190
Father in Prison 12-36mos	0.2030		0.1520	0.2710	0.2167	***	0.1570	0.2990	0.1184	***	0.0580	0.2400
Black*Prison	-		-	-	-		-	-	2.4201	*	1.0810	5.4180
Latino*Prison	-		-	-	-		-	-	1.5631		0.6260	3.9000
Father in Prison before 12 mos	0.5085		0.1520	0.6270	0.6046	***	0.4710	0.7750	0.6081	***	0.4740	0.7800
Education (omitted category: HS)												
< High School	1.0670		0.4130	1.3500	1.1788		0.9020	1.5400	1.1727		0.8970	1.5330
Some College	1.4924	**	0.8430	1.9290	1.0575		0.7930	1.4090	1.0626		0.7970	1.4170
College Grad	5.5567	***	1.1550	8.8970	1.3257		0.7620	2.3060	1.3002		0.7460	2.2650
Household Income	1.4859	***	3.4700	1.6280	1.1098		0.9820	1.2540	1.1158		0.9870	1.2610
Income Missing	0.5383	***	1.3560	0.6550	0.7198	**	0.5770	0.8970	0.7159	**	0.5740	0.8930
Mom's Age	1.1043	***	0.4420	1.1260	1.1760		0.9970	1.3880	1.1775		0.9980	1.3890
Mom Age-Squared	1.0018	***	1.0830	1.0020	0.9978		0.9950	1.0010	0.9978		0.9950	1.0010
Parity	1.2355	***	1.0010	1.3930	1.1052		0.9640	1.2670	1.1057		0.9650	1.2670
Multi-partner Fertility	0.7211	***	1.0960	0.8830	1.0311		0.8010	1.3280	1.0400		0.8080	1.3390
Dad Drug Problem	0.5066	***	0.5890	0.6860	0.6593	*	0.4710	0.9240	0.6609	*	0.4710	0.9270
Marital Birth	4.9845	***	3.7670	6.5960	2.1948	***	1.5580	3.0930	2.1691	***	1.5390	3.0580
n	-				2502				2502			

* p<0.05, ** p<0.01, *** p<0.001

Table 4. Logistic Regression, Parents still together at child's third birthday, National Longitudinal Survey of Youth 1979

Covariates	Bivariate				Main Effects				Interaction			
	Odds Ratios		95% Conf. Intervals		Odds Ratios		95% Conf. Intervals		Odds Ratios		95% Conf. Intervals	
Race/ethn (omitted category: White)												
Black	0.4982	***	0.4035	0.6152	0.7627	*	0.5994	0.5811	0.7415	*	0.5794	0.9489
Latino	1.1248	***	0.8688	1.4562	1.5926	**	1.2016	1.0338	1.5863	**	1.1868	2.1204
Father in Prison 0-36 mos	0.1444	***	0.0958	0.2176	0.3338	***	0.2018	0.2998	0.2532	***	0.1268	0.5056
Black*Prison	-		-	-	-		-	-	1.8003		0.6847	4.7338
Latin*Prison	-		-	-	-		-	-	1.1901		0.3125	4.5322
Father in Prison before birth	0.4232	***	0.3084	0.5808	0.8195		0.5634	0.7006	0.8312		0.5701	1.2119
Family Income (ln)	1.2525	***	1.1889	1.3195	1.0435		0.9666	0.9718	1.0447		0.9682	1.1273
Income Missing	1.7672	*	1.1164	2.7975	1.1950		0.7069	0.7902	1.1951		0.7072	2.0197
Father's edu (years)	1.1652	***	1.1288	1.2029	1.0498	*	1.0065	1.0264	1.0494	*	1.0063	1.0944
Father's Age at Child's Birth	1.0998	***	1.0791	1.1208	1.0613		0.8762	0.8664	1.0589		0.8740	1.2830
Father's Age-squared	1.0017	***	1.0014	1.0021	1.0002		0.9968	0.9992	1.0002		0.9969	1.0036
Parity	0.9980		0.9210	1.0813	0.9752		0.8861	0.9315	0.9760		0.8878	1.0731
Father's drinking problem (1982)	0.7270		0.5114	1.0336	0.7911		0.5435	0.6658	0.7908		0.5432	1.1511
Marital Birth	7.3587	***	5.9691	9.0718	5.5910	***	4.4426	3.4020	5.5960	***	4.4464	7.0429
n	-				7083				7083			

* p<0.05, ** p<0.01, *** p<0.001

Table 5. Logistic Regression, Parents still together at child's tenth birthday, National Longitudinal Survey of Youth 1979

Covariates	Bivariate				Main Effects				Interaction			
	Odds Ratios		95% Conf. Intervals		Odds Ratios		95% Conf. Intervals		Odds Ratios		95% Conf. Intervals	
Race/ethn (omitted category: White)												
Black	0.4982	***	0.4035	0.6152	0.7112	***	0.9704	0.8704	0.6389	***	0.5203	0.7845
Latino	1.1248	***	0.8688	1.4562	1.2860	*	2.1110	1.5997	1.3067	*	1.0387	1.6438
Father in Prison 0-120 mos	0.2410	***	0.1781	0.3261	0.4428	***	0.5521	0.6540	0.2452	***	0.1371	0.4385
Black*Prison	-		-	-	-		-	-	4.0299	***	1.8045	8.9999
Latin*Prison	-		-	-	-		-	-	1.1168		0.4525	2.7564
Father in Prison before birth	0.4232	***	0.3084	0.5808	1.0057		1.1919	1.4437	1.0152		0.7092	1.4530
Family Income (ln)	1.2525	***	1.1889	1.3195	1.0355		1.1266	1.1034	1.0346		0.9718	1.1014
Income Missing	1.7672	*	1.1164	2.7975	1.1145		2.0200	1.5719	1.1172		0.7895	1.5811
Father's edu (years)	1.1652	***	1.1288	1.2029	1.0609	***	1.0950	1.0967	1.0597	***	1.0252	1.0954
Father's Age at Child's Birth	1.0998	***	1.0791	1.1208	0.9960		1.2855	1.1450	0.9852		0.8563	1.1335
Father's Age-squared	1.0017	***	1.0014	1.0021	1.0016		1.0036	1.0040	1.0018		0.9994	1.0042
Parity	0.9980		0.9210	1.0813	1.0044		1.0731	1.0829	1.0006		0.9295	1.0771
Father's drinking problem (1982)	0.7270		0.5114	1.0336	0.9228		1.1517	1.2790	0.9301		0.6675	1.2961
Marital Birth	7.3587	***	5.9691	9.0718	4.2286	***	7.0361	5.2562	4.2288	***	3.4052	5.2516
n	-				7084				7084			

* p<0.05, ** p<0.01, *** p<0.001

Table 6. Interaction of father incarceration and race, average effects

Fragile Families - 36 months					
Race/Ethn	Mean	e^b	b	Average effect of Prison	Percent of white prison effect
White	0.24	0.12	-2.13	-0.52	-
Black	0.48	2.42	0.88	-0.10	18.51%
Latino	0.27	1.56	0.45	-0.40	76.60%
NLSY79 - 36 months					
White	0.59	0.25	-1.37	-0.80	-
Black	0.20	1.80	0.59	-0.69	85.35%
Latino	0.21	1.19	0.17	-0.77	95.35%
NLSY79 - 120 months					
White	0.59	0.25	-1.41	-0.82	-
Black	0.20	4.03	1.39	-0.54	66.05%
Latino	0.21	1.12	0.11	-0.80	97.12%