

## Incarceration and Support for Children in Fragile Families

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May 15, 2008

This research was funded by the Annie E. Casey Foundation. We thank them for their support but acknowledge that the findings and conclusions presented in this report are those of the authors alone, and do not necessarily reflect the opinions of the Foundation. We also wish to thank Ronald Mincy and Andrew Gelman for their constructive feedback, and Ofira Schwartz-Soicher for outstanding research assistance. All errors are our own.

## **ABSTRACT**

Incarceration is widespread in the United States, and previous literature has shown significant negative effects of incarceration on later employment, earnings, and relationship stability. Given the high rates of fatherhood among men in jails and prisons, a large number of children are placed at considerable risk when a parent is incarcerated. This paper examines one dimension of the economic risk faced by children of incarcerated fathers: the reduction in the financial support that they receive. We use a population-based sample of urban children to examine the effects of incarceration on this support. Both cross-sectional and longitudinal regression models, as well as a propensity score matching analysis, indicate that men with incarceration histories are significantly less likely to contribute to their families and those that do contribute provide significantly less. Moreover, sensitivity analysis suggests that these differences are unlikely to be a result of unobserved heterogeneity between incarcerated and never-incarcerated fathers. The negative effects of incarceration on fathers' financial support are due not only to diminished performance in the labor market by formerly incarcerated men, but also to their increased likelihood to live apart from their children. Men contribute far less through child support (formal or informal) than they do when they share their earnings within their household, suggesting that the destabilizing effects of incarceration on family relationships place children at significant economic disadvantage.

Incarceration is widespread in the United States, a phenomenon with implications for families as well as individuals. In 2002, over 1.1 million parents (mostly fathers) with over 2.4 million minor children were incarcerated in State and Federal prisons or local jails (Mumola 2006). The majority of the incarcerated population is young, male, urban, overwhelmingly minority, and economically and socially disadvantaged (Western 2006, Petersilia 2003). Moreover, incarceration has been shown to have significant negative effects on men's employment, earnings, and relationship stability, placing incarcerated men, formerly incarcerated men, and their families at considerable risk of economic hardship.

These negative effects have implications not only for incarcerated men and their families, but for their communities more broadly. Although men in prisons tend not to be in stable romantic relationships, their rates of fatherhood are high – nearly as high as in the non-incarcerated population – suggesting that large populations of children are left in single-parent families as a result of incarceration (Western 2006). Moreover, incarcerated men tend to come from spatially concentrated areas of inner cities, leading urban and minority neighborhoods to suffer an increased risk of poverty, delinquency, and other hardships for children. This paper uses newly available population-based data to examine one mechanism by which these risks are transmitted, the financial support that fathers provide to their partners and children. Although this mechanism has not been studied before, we expect incarceration to significantly reduce such support, and our data are ideally suited to test the extent to which this is so.

## **Background**

Incarceration threatens the ability of men to contribute to their families in two key ways. First, an extensive literature suggests that incarceration places men at a severe disadvantage in the labor market. Returning offenders are often unable to find work, or relegated to low-paying jobs or the informal economy (See Western, Kling, and Weiman 2001 for a review). With few employment options, men's income is often insufficient to support their families. Second, incarceration has been shown to have devastating consequences for family structure. Men married upon entering prison are more likely than their never-incarcerated counterparts to separate, and particularly among blacks, those who are single have few marriage prospects upon their release (Western 2006). Fathers in prison, or returning from prison, therefore have limited access to their children, and at any level of income, their children are less likely to receive financial support.

## **Incarceration and the Labor Market**

Incarceration can undermine a worker's success in the labor market in several ways. Workers may be made less productive by serving time in prison – supply-side effects – or employers may be more reluctant to hire job applicants with criminal records – demand side effects (Holzer, Raphael and Stoll 2003).

Mincer (1962) estimates that on-the-job training comprises as much as half of a worker's human capital. Time incarcerated and away from the labor force prevents the acquisition of work experience and job skills. Incarceration may also exacerbate substance abuse and other health

problems. Behavioral adaptations to the conditions of penal confinement may leave an inmate withdrawn, uncommunicative, and unable to accept authority. These health and behavioral effects would clearly reduce an ex-offender's productivity. Prison may also provide a "school for criminals", increasing an inmate's criminal human capital, raising their potential illegal wages, and enhancing their preference for crime (Myers 1980, 1983). The effects of incarceration are not unambiguously negative, however. Inmates may participate in education and work programs. There is also evidence that spending time behind bars can be a turning point, giving inmates time to reflect and resolve to improve their lives (Edin, Nelson, and Parnal 2004).

On the demand side of the labor market, incarceration carries a stigma that repels prospective employers. Job applicants are routinely asked about their criminal histories and ex-offenders risk termination if they disclose their records. A prison record may signal that a job applicant is dishonest, dangerous, or unreliable. Criminal stigma also carries a legal significance as individuals with criminal records are often prohibited from employment in certain skilled and licensed occupations. Employers, too, may bear legal liability where negligent hiring laws leave them liable for damage caused by their employees with criminal records (Pager 2003, Holzer et al. 2003, citing Bushway 1996).

The possibility also exists, however, that low employment and wages among ex-offenders might be a result of selection into incarceration, rather than a causal effect of incarceration. Men who become incarcerated are generally poorly educated, and even prior to their incarceration, score lower on standardized tests than other men with low education (Western 2006). In fact, many men turn to crime, or "double up" between legal and illegal work precisely because they lack skills and opportunities in the formal labor market (Fagan and Freeman 1999, Freeman 1996, Reuter, McCoun, and Murphy 1990). Nonetheless, an extensive empirical literature, reviewed by Western (2006) and Western, Kling, and Weiman (2001), suggests that incarceration does indeed suppress employment and wages.

## **Incarceration and Families**

Incarceration may also reduce the amount men contribute to their children by destabilizing their family relationships. Fathers in state prison serve an average sentence of 80 months, with a median of approximately 39 months, and those in federal prison serve an average of 103 months (Parke and Clarke-Stewart 2002). During this time, fathers are, in effect, incapacitated not only from committing crimes, but also from participating in their relationships as a partner, spouse, or parent (Western 2006). Visits are scarce, and both psychologically and physically demanding. Fewer than one-third of fathers in prison see at least one of their children on a regular basis (Hairston 1998). Phone and mail contact also presents challenges, as the collect-call policies in many prisons place heavy charges on the prisoners' families, and mail communication from a correctional institution also carries a stigma and social cost. Incarcerated fathers are also generally incapacitated from contributing financially to their families, as prison pay is meager and correctional fees for doctors' visits, health services, and other living expenses frequently force incarcerated men to rely on their families rather than providing for them (*ibid.*). Furthermore, while fathers are incarcerated, mothers

also frequently form new relationships, further separating the incarcerated fathers from their children (Braman 2004).

Even after returning from prison, men are largely incapacitated from fully partaking in their partnership roles. Given incarceration's negative effect on employment and wages, men frequently remain unable to provide for their families, which further strains family relationships and undermines opportunities for full post-prison reunification.

Romantic and family relationships are also undermined by the social stigma attached to incarceration. Ethnographic research by Edin (2000) and Anderson (1999) underscore the importance of respectability in poor women's search for a husband. A man's incarceration history suggests a lack of honesty, threatens family reputation, and raises concerns that his drug involvement, violence, or other illegal activities might follow him into the home, destabilizing his family and placing them at risk (Edin 2000). The financial instability associated with incarceration also suggests to women that a formerly incarcerated man will be unable to lift his family out of the ghetto, or provide them with a "respectable" middle-class lifestyle (Anderson 1999).

As with theories of incarceration and the labor market, the possibility exists that low marriage and partnership rates among incarcerated men are due to selection, and that fathers who go to jail and prison are simply bad fathers and bad partners. Only half of fathers sent to state and federal prisons were living with their children at the time of their incarceration (Parke and Clarke-Stewart, 2002), suggesting that children may not suffer significantly from the incarceration of an already-absent father. Furthermore, most fathers in prison have children by multiple partners, and suggesting that their family circumstances were far from stable before incarceration might cause additional disruption (Johnston, 2006). Nonetheless, research by Western and Lopoo (2006) examines the NLSY and the Fragile Families and Child Wellbeing study, and finds that incarceration leads men in married or cohabiting relationships to separate, and among black men, reduces the likelihood that a single man will marry.

Given the demonstrated destabilizing effects of incarceration on both family stability and men's labor market performance, we expect children to experience significant hardship when their fathers are incarcerated. This study improves our understanding of children's economic risk by carefully accounting for fathers' financial contributions to their children, and using a number of analytical strategies to assess how these contributions are affected by incarceration.

## **Data and Methods**

We test the relationship between incarceration and fathers' financial support using the Fragile Families and Child Wellbeing Study (hereafter "Fragile Families"). Fragile Families is a national study that follows a cohort of unmarried parents (along with a comparison group of married parents) and their young children, in twenty U.S. cities. Baseline data were collected between 1998 and 2000; 4,898 mothers were interviewed in the hospital within 24 hours of their child's birth (1,186 marital births and 3,712 nonmarital births). Fathers were also interviewed in the

hospital when possible, and contacted in other locations if they were not present at the birth. Parents were re-interviewed one, three and five years after the child's birth, and our analysis sample consists of those 3,796 families where fathers' financial contributions can be computed at the fifth-year follow-up.

The Fragile Families survey has several features that make it particularly valuable for assessing the relationship between incarceration and support for mothers and children. Its urban focus and oversample of unmarried parents who live in large cities provides a sample of highly socioeconomically disadvantaged families, and a substantial number of fathers who have experienced incarceration. Three percent of the fathers were in prison or jail at the time their child was born, and by the fifth year follow-up, almost 50% of fathers were reported to have been incarcerated at some point in their lives. In addition, the fact that both mothers and fathers are interviewed, and both parents are asked about the fathers' incarceration history, provides a more complete record of his criminal record. Criminal history is frequently underreported (Golub et al 2002), and supplementing fathers' self-reports with those of their partners helps to improve the accuracy of our analysis.

Fragile Families is also an ideal dataset for this study because it allows the construction of a complete measure of fathers' contributions to their children, which reflects both their earnings, and their propensity to share these earnings with their children. We establish the propensity of men to share their earnings based on their residence status, noting that married and other co-resident fathers are likely to share a larger portion of their earnings than are nonresident fathers, whose contributions are likely to come primarily through child support. Fragile Families' focus on family structure and father residence allows us to establish which fathers are most likely to share their income, and to combine men's self-reports of their past-year earnings with their partners' reports of the amounts they receive in child support, to construct a detailed measure of financial support.

## **Variables of Interest**

### **Incarceration**

Our key independent variable, the measure of incarceration, is based on a number of questions in each wave, beginning at the child's first birthday: fathers' self-reports of their criminal history, mothers' direct reports that their partner had been incarcerated, and indirect reports from either parent that suggest that the father had been to jail or prison<sup>1</sup>. If either parent reports that the father had been to prison or jail, or if any of the indirect reports indicate incarceration, then we consider the father to have been incarcerated.

### **Financial Contributions**

Our dependent variable, the amount of money fathers contribute to their children, is a combination of the amount he contributes via shared earnings, and the amount he contributes via

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<sup>1</sup> Such "indirect reports" include either parent reporting that their relationship had ended as a result of the father's incarceration, that the father had been sent to jail for child support nonpayment, and several other indicators that he had spent time in jail or prison.

child support. Betson (2006) estimates that families with one child, on average, devote approximately 25% of their spending to the child. We therefore assume that fathers living with their partners and children contribute 25% of their earnings, from both the regular and informal labor markets, to childrearing. Later analyses test the sensitivity of our findings to this calculation. The financial contribution of nonresident fathers is measured as the amount that the child's mother reports receiving in the past year, in both formal and informal child support. This measure is strictly based on cash contributions, with formal support measured based on the amount of any child support order the couple has in place. If the mother only reports receiving a fraction of the agreed-upon amount, the amount she receives is noted. Informal support is measured as the amount of money she receives in addition to that formally ordered. Our support measure does not include either in-kind support (such as buying food or clothing for the child), or time spent with the child (such as a generally non-resident father having the child live with him for periods of time).

### **Socioeconomic Covariates**

It is highly likely that fathers with incarceration histories also face other economic and social disadvantages that may lead them to contribute less to their children. To avoid overestimating the effects of incarceration due to omitted variable bias, we therefore control for a number of covariates, which we classify into three broad groups.

Our first covariates are those established early in the fathers' lives, which are likely to affect both their risk for incarceration, and later contributions to their children. These include demographic characteristics such as race and family history, as well as behavioral traits such as cognitive ability and impulsivity. We define family history as whether his own father was present and involved in his upbringing, or if another man served as his "social father". Cognitive ability is measured using a word association test, and though the measure is not recorded until the third year follow-up, it was designed as a general intelligence measure, and is therefore considered a construct fixed since birth. Likewise, impulsivity was measured at the one-year follow-up survey, but measures a characteristic that we expect was fixed from birth.

Our second set of covariates includes fathers' age and educational attainment at baseline. Both age and education are included in typical labor market analyses, but in our sample may be endogenous to incarceration. Men enter our sample upon the birth of a child, but among those men who have been to jail or prison the majority were incarcerated long before they became fathers, and many were incarcerated before they might otherwise have completed their education<sup>2</sup>. To whatever extent incarceration precludes men from later fatherhood or education, models including these covariates may underestimate incarceration's true effect.

Our third set of covariates is a rich set of employment, behavioral, and family characteristics measured at the baseline and year 1 surveys. These variables are valuable given that few surveys of incarceration include such a wide array of descriptors. However, as with the second set of covariates, these are also potentially endogenous, and may reflect effects of incarceration, rather than

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<sup>2</sup> The median reported age of first incarceration is 20.

risk factors. A complete list of the variables in each of our three covariate sets is provided in Table 1.

[Table 1 about here]

## Modeling Strategy

### Descriptive Analysis

A detailed description of those men with and without incarceration histories, and those with incarceration status unknown, is provided in Table 2. The first row of Table 2 suggests that men with histories of incarceration contribute significantly less money to their children, and the rows that follow suggest a number of reasons this might be the case. As shown in the lower portion of the table, they have far lower employment rates than do their counterparts, and their average wages are significantly lower. Second, they are significantly less likely to be married when their child is born, and more likely to be non-resident. In addition, they are far more likely, by the time the child is one year old, to have children with more than one partner, suggesting that their limited income is stretched thinner and across multiple families.

[Table 2 about here]

To assess the extent to which fathers' contributions might be lower as a result of his nonresident status, and the extent to which his contributions might be lower due to low earnings, Table 3 examines the Fragile Families fathers by both their relationship status and incarceration history at year 5. This table suggests that the diminished financial contribution of fathers with incarceration histories is likely due to both a combination of lower earnings, and the increased likelihood of incarcerated or formerly incarcerated fathers to live apart from their children. For example, over three-quarters of the fathers in our ever-incarcerated sample are nonresident, compared to 37% of the never-incarcerated sample. Child support payments tend to be far lower than 25% of men's earnings, and more than half of nonresident fathers do not pay any child support in the year before their child's fifth birthday. The increased presence of nonresident fathers among the incarcerated therefore suggests that the overall contributions of incarcerated fathers are likely to be lower than those of their counterparts. In addition, however, for each residence status group, the financial contributions of men with incarceration histories are significantly lower. Notably, the contributions of married but formerly incarcerated men are only slightly over half those of married men with no incarceration histories, suggesting that the earnings of men with incarceration histories are also lower than those of other men.

[Table 3 about here]

To further assess the relationship between fathers' incarceration histories and the amount they contribute to their families, we estimate a series of descriptive OLS regressions. The distribution of fathers' contributions is highly skewed, with more than one-third of men contributing

nothing<sup>3</sup>, median contribution of slightly over \$1000, and top contribution values of nearly \$100,000. Moreover, the concentration of zeros masks the fact that not only are a large portion of fathers not contributing to their families, some of these fathers, who may spend family income on personal expenses such as health care or illegal drugs, and actually lead to a loss of family income. We therefore use a series of Tobit models, with left-censoring at zero, to model both the probability that fathers contribute any amount to their families, and the amount given by the contributors.

These models proceed in four stages. We begin by modeling the unadjusted relationship between incarceration and contributions. If  $Y_i^*$  is the latent variable determining whether and how much a father contributes, Model 1 estimates that:

$$Y_i^* = \beta_0 + \beta_1 \text{incarc}_i + \varepsilon_i$$

Our second model builds upon Model 1, and controls for those covariates that are established early in the fathers' lives, and thus are guaranteed not to be affected by any incarceration history (those in the first column of Table 1).

Third, we include not only the early-life covariates, but also several others that appear in a typical wage equation, listed in the middle column of Table 1. Although characteristics such as men's educational attainment and they age they father a child (and thus enter our survey) are likely to be affected by any early incarceration experience, and thus potentially endogenous, this model is thus expected to reduce the magnitude of the incarceration coefficient, and actually represents a conservative estimate of incarceration's effect.

Finally, we include, in addition to the early-life covariates and typical wage equation covariates, a full complement of fathers' socioeconomic and behavioral characteristics, measured at the child's first birthday. Given the early age at which most fathers in our incarceration sample were incarcerated, it is highly likely that these characteristics are endogenously determined. However, this model again represents a quite conservative estimation of the relationship between incarceration and fathers' contributions. If, for example, incarceration reduces the likelihood of employment at year 1, that reduction is likely to have implications for later contributions. However, if Model 4 estimates a significant "effect" of incarceration, even controlling for year 1 employment, this suggests a strong relationship between incarceration and year 5 contributions, consisting of both the relationship mediated by year 1 employment, and the direct effect of incarceration.

## Causal Inference

In addition to describing the magnitude and significance of the relationship between incarceration and fathers' financial contributions, we implement a number of strategies to assess the causal nature of this relationship. One threat to causal inference inherent in regression analysis is the potential for heterogeneity between the ever- and never-incarcerated groups. If the two groups

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<sup>3</sup> While the vast majority of men with zero contributions are nonresident and not paying child support, a small number of resident and married men report zero earnings in the formal and informal labor markets, and their contributions are also measured as zero.

differ significantly, then regression analysis risks comparing men with incarceration histories to never-incarcerated men who barely resemble them, rather than assessing the effects of incarceration on men likely to become incarcerated. The first step we take towards a causal estimate, as described above, is to capture observable heterogeneity between the incarcerated and never-incarcerated groups, by including previously unobserved covariates that are correlated with both incarceration and family contributions. To the extent that these variables are observed after the fathers' first incarceration, and may represent a mediator of incarceration rather than a predictor, the incarceration coefficient in Model 4 is likely to be a conservative estimate of the causal effect, representing only that portion of the effect not operating through baseline relationship status, year 1 employment, or other observed characteristics.

We next estimate a propensity score model, which restricts comparison to those fathers with covariate support: fathers with and without incarceration histories who resemble each other on a number of observable, relevant characteristics (Rosenbaum and Rubin 1983). Our propensity score model estimates the likelihood that each man in our sample has been incarcerated, based on the early-life characteristics laid out in Table 1, and missing data indicators for each (D'Agostino and Rubin 2000). The estimation of the propensity score model is detailed in Appendix A. Subclassification by quintiles of the propensity score suggests covariate balance, as within each quintile, the treated and untreated groups do not differ significantly on any of the covariates of interest (Rosenbaum and Rubin, 1984).

Given each individual's propensity for having been incarcerated, we then estimate the effect of incarceration on family contributions, by comparing the contribution levels of incarcerated men to only those never-incarcerated men who have similar propensities for incarceration. We use a regression-adjustment that again estimates a Tobit model to predict fathers' contributions, but limits our sample to those men with incarceration histories, and their matches from the comparison sample, weighted by the number of times they are used as a match (Rubin and Thomas 2000). By restricting our comparison to men who are likely to go to jail or prison, we gain a more accurate understanding of the effects of incarceration on family contributions. It is important to note, however, that causal inference requires not only controls for observable pre-treatment characteristics such as race or socioeconomic status, but also requires that the treated and control groups are similar on unobservable characteristics that might influence both incarceration and family contributions. Although a propensity score analysis is unable to correct for unobserved differences between the treated and control groups, we test the robustness of our results to such heterogeneity, using a Rosenbaum (2005) sensitivity analysis. This analysis assesses, if the ever-incarcerated men possess some unobserved "criminality" characteristic that distinguishes them from the never-incarcerated men, how strong this trait would need to be to change our broad conclusions about incarceration's effects on financial contributions.

Finally, we perform another more limited comparison, this time focusing only on those men we know were not incarcerated by their child's first birthday. For this sub-sample, we know their year one characteristics, and their year one contribution level, to be "pre-treatment", and we can

estimate a longitudinal model that examines their fifth-year contributions, controlling for their first-year contributions, and estimates how this contribution level differs by incarceration history. As before, we estimate this model as a Tobit, and control for the full set of characteristics laid out in Table 1. To assess the change in contribution level between years 1 and 5, we also control for the year 1 level of contributions, and a binary indicator of whether the father contributed anything at all. The incarceration coefficient in this model thus suggests the extent to which contribution levels change following a man's first incarceration.

## Results

### Sample Description

As described above, and in Tables 2 and 3, those men with incarceration histories appear far worse off than do their never-incarcerated counterparts, both on characteristics predating, and those likely to follow their first incarceration spell. They are far more likely to be ethnic minorities, are significantly more impulsive, score lower in cognitive ability, and are less likely to have grown up with their own father, and more likely to have grown up with a social father, than their never-incarcerated counterparts. They are also significantly younger at the birth of their child, less educated, far less likely to be married or cohabiting at their child's birth, and significantly more likely to have fathered a child by more than one woman. As of their child's first birthday, they are less likely to be employed in the regular labor market, and more likely to be working off the books, and their wages in the regular labor market are significantly lower. Finally, they are more likely to have used marijuana in the month before their first-year survey, and more likely to suffer from major depression at this time. As anticipated, they contribute far less to their children at the year five survey. Men whose incarceration status is reported as unknown tend to fall between the known-incarcerated and known-not-incarcerated groups, though on labor market characteristics they far more closely resemble the never-incarcerated group.

### Descriptive Regression Results

Table 4 presents the coefficients from the Tobit regression models predicting men's contributions, based on their incarceration histories and the covariates laid out in Table 1. Dummy variables are included in these models to account for missing data, though their coefficients are not included in the table.

Coefficients are interpreted in terms of their marginal effects on the likelihood that men contribute any nonzero amount to their children, and on the amount contributed. The marginal effects of incarceration status are provided for each model in Table 5, and interpreted as follows: According to the uncontrolled regression model (Model 1), men with a history of incarceration are 35.6% less likely to contribute financially to their children. Among those men who do contribute, those with incarceration histories, on average, provide \$3,683 less than their counterparts.

[Tables 4 and 5 about here]

As expected, the more covariates are controlled for, the weaker the relationship between incarceration and fathers' contributions to their families. Nonetheless, even in Model 4, which is most strictly controlled and even controls for characteristics that might mediate the effects of early incarceration (such as baseline marital status or year 1 employment), a statistically and substantively significant relationship remains. Comparing the magnitudes of the regression coefficients in Table 4 provides some perspective on the importance of incarceration, as compared to other demographic and socioeconomic characteristics, in predicting men's contributions to their families. Examining Model 4, even in our most conservative estimates, the difference in contribution level and contribution likelihood between the ever-incarcerated and never-incarcerated is large. Men with incarceration histories are 15% less likely to contribute to their children than never-incarcerated men, and those men with incarceration histories who do contribute, contributed approximately \$1,300 less than their counterparts. The magnitude of this difference, which we interpret as a lower bound on the incarceration effect, is almost as large as the difference between the contributions of blacks and whites, and is larger than that of the difference between Hispanics and whites. Larger still, however, is the difference between the contributions of men who are married or co-resident, and those who are nonresident. Men married at baseline are 22% more likely to contribute to their children than those who were nonresident at baseline. Likewise, the average nonzero contribution amount is more than \$2,200 higher among married men.

### **Propensity Score Results**

Tables 4 and 5 suggest that men with incarceration histories contribute significantly less to their children than do men who have never been incarcerated. In Table 6, we compare the results from our descriptive regression Model 2 to those from our propensity score analyses.

[Table 6 about here]

We find that our propensity score results closely resemble those from our second descriptive regression, estimating an even stronger and significant effect of incarceration, both on men's likelihood of contributing to their families, and of the conditional amount that they do contribute. The similarity of the two sets of estimates is not surprising, as both analyses control for the same set of observable pre-treatment characteristics, and neither analysis controls for unobserved heterogeneity between the ever-incarcerated and never-incarcerated groups. However, a Rosenbaum sensitivity analysis of the propensity score findings suggests that if unobserved heterogeneity is in fact driving these differences, the heterogeneity would need to be quite large to reduce our confidence in our findings. If unobserved criminality increases an individual's likelihood of incarceration, the "ever-incarcerated" group could have unobserved criminality levels up to 2.5 times higher than their matched comparison sample, and we would still observe a significant effect of incarceration. These results strengthen our confidence that the differences we estimate are not driven solely by unobserved heterogeneity.

### **Lagged Dependent Variable Results**

To provide an additional assessment of the causal effect of incarceration on family contributions, we perform an additional analysis that focuses only on men experiencing their first

incarceration during the period of analysis<sup>4</sup>. In Table 7, we show the marginal effects of incarceration, estimated in three sets of Tobit models. First, we replicate Model 4 from Table 3, which shows the fully controlled relationship between incarceration and contributions for the entire sample. Next, we run the same model examining only the limited sample of men not incarcerated before year 1. In the limited sample model, the effect of incarceration on a man's likelihood of contributing to his family decreases slightly, and the effect of incarceration on the conditional amount contributed increases slightly, but these changes are only slight.

Third, we run a model controlling not only for early-life and year 1 demographic, socioeconomic, and behavioral characteristics, but also fathers' contribution level at year 1, both an indicator for whether he contributes anything at all, and a continuous measure of the amount contributed. The effects indicated in this model represent the change in contribution level associated with incarceration. As shown, even after controlling for an extensive set of pre-incarceration covariates, including a man's baseline level of contribution to his child, incarceration is associated with a significant drop in his contributions. His contributions fall by over \$1400, nearly half his pre-incarceration contribution level, and he is increasingly likely to contribute nothing at all.

## Mechanisms

Each of our analyses thus far suggests a suppressant effect of fathers' incarceration on the financial contributions that they make to their children. In this section, we test several mechanisms by which this reduction may take place, focusing on the two theoretical constructs that tie incarceration to family contributions: labor market performance and relationship instability.

Table 8 examines changes in the incarceration coefficient as a series of potential mediators are considered. The first column replicates Model 2 from Table 3, which examines the relationship between incarceration and contributions with controls for incarceration history and the set of covariates established early in life (race/ethnicity, impulsivity, family background, and cognitive ability.) The second and third columns examine two measures of fathers' available income, his earnings in the regular and underground labor markets, respectively. The fourth column controls for the parents' relationship status at year 5. The fifth column controls for both earnings (in the regular labor market) and year 5 relationship status, and the sixth column includes a control for whether the mother is married to or living with somebody new.

[Table 8 about here]

As shown in Columns 2 and 4, both labor market performance and relationship status play a large role in accounting for the relationship between incarceration and fathers' family contributions. As shown in Column 5, nearly 80% of the "incarceration effect" is accounted for by men's post-

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<sup>4</sup> This sample is limited to those men for whom we observe both their first-year and fifth-year contribution levels, and their first-year and fifth-year incarceration status. This reduces our sample to 1,927 men, 364 (19%) of whom experience their first incarceration experience between years 1 and 5. The sample of men experiencing their first incarceration in this time is compared to the more inclusive sample of ever-incarcerated men in Appendix B.

incarceration performance in the labor market, and post-incarceration relationship instability, each of which plays an approximately equivalent role in reducing the incarceration coefficient on its own.

Looking more closely at both labor market performance and relationship stability, two facts are noteworthy. First, as shown in Column 2 of Table 8, labor market performance, and the availability of income from earnings, are a crucial component of men's contributions. However, Column 3 suggests that money that fathers earn in the informal labor market is far less likely to reach their children. The reasons for this are twofold: Fragile Families fathers report far less income from the informal labor market than the formal labor market, their underground earnings are thus less substantial and less likely to go towards childrearing. In addition, money earned off the books is far less likely to be factored into child support decisions; fathers living apart are thus less likely to share that income with their nonresident children.

Also noteworthy are Columns 4, 5 and 6 of Table 8. As shown in Column 4, fathers who are nonresident contribute far less to their children, a fact that explains more than half of the incarceration "effect" noted in Column 1. However, despite concerns that mothers' repartnering while a father is incarcerated might threaten the relationship between father and child, this effect, at least in terms of financial contributions, appears to be minimal. Column 6 suggests that fathers do indeed contribute less to their children when their child's mothers are married or living with someone new. However, the bulk of incarceration's effects on family contributions are related to the dissolution of the parents' relationship. Once parents are living apart, a mother's repartnering does little to further reduce his financial contributions.

## Sensitivity Analysis

Given the importance of residence status in determining fathers' financial contributions to his children, we also examine the sensitivity of our findings to our definition of fathers' contributions. Thus far, we have followed the Betson (2006) estimates that 25% of family spending is allocated to children, and assumed that the contributions of resident fathers are equal to 25% of their total earnings (in the formal and informal labor markets). In this section, we vary the proportion of resident fathers' earnings that we allocate to family contributions. The first column of Table 9 replicates our most conservative regression model, which estimates includes a detailed set of year 1 covariates, and suggests that contributions are approximately \$1,300 lower among fathers with incarceration histories (and that these men are also 14.9% less likely to contribute at all).

[Table 9 about here]

Moving across the columns of Table 9, it is clear that the magnitude of the incarceration effect is quite dependent on the portion of earnings that we expect resident fathers to share with their children. Given that fathers with incarceration histories are far less likely to live with their children, their contributions are most frequently limited to child support payments. The sharing of earnings, on the other hand, is most frequently the mechanism by which fathers without incarceration histories contribute to their families. As a result, as resident fathers share a smaller

portion of their earnings, the effect of incarceration on fathers' contributions is diminished. This again suggests that the diminished family contributions from men with incarceration histories stems largely from their increased likelihood to live away from their children. Nonetheless, the likelihood that incarcerated fathers contribute to their children remains significantly lower; fathers with incarceration histories are more than 10% less likely to contribute to their children, even at our most conservative estimate of income sharing. Likewise, the effect of incarceration on the conditional amount that fathers contribute remains statistically significant.

## **Conclusions and Directions for Policy and Research**

### **Summary of Findings**

As shown throughout this paper, the incarceration of a father has substantial economic consequences for child well-being. Men with incarceration histories are, at our most conservative estimate, approximately 14% less likely to contribute financially to their partners and children than men who have never been incarcerated, and among those who contribute, the amount of money they provide is approximately \$1,400 lower. As the average level of contributions among those men who contribute anything is just under \$7,500 per year, this represents nearly a 20% decrease. Controlling for a rich set of observable personal characteristics, and implementing propensity score analyses and longitudinal models to approximate the effects of unobservable personal characteristics, suggest that the decreased contributions by incarcerated men are not simply due to their being “bad” fathers. Rather, incarceration’s destabilizing effects on their labor market performance and relationship quality lead fathers to earn less and to live away from their children, each of which diminishes the financial support their children receive.

### **Policy Implications**

The limited capacity of formerly incarcerated fathers to contribute to their children has been linked to both their diminished performance in the labor market, and instability in their family and romantic relationships. Incarceration policies should address each of these challenges. For example, policymakers can address the diminished labor force participation among formerly incarcerated men by restoring a rehabilitative component to correctional facilities and providing better education and employment training. They can also attempt to reduce family instability by enabling responsible fatherhood among prisoners. Family-friendly visitation opportunities, and an elimination of the high costs to mail and phone contact, will help couples separated by incarceration to remain in touch, and ease family reintegration upon a father’s return.

On the other hand, it is important to note that our outcome of interest in this analysis has strictly been a financial measure, and economic stability is only one aspect of child well-being. A significant portion of the incarceration effect measured in this analysis is based on the increased tendency of fathers with incarceration histories to live away from their children. Although this substantially reduces the financial support that children receive, our analysis does not examine whether the removal of, and ultimate separation from, a criminally-involved father stabilizes the

household in other ways. Nonetheless, our call for increased visitation opportunities remains relevant, so that a mother who does want to maintain contact between her children and their father is able to do so.

Furthermore, when setting policy about the use of incarceration, it is crucial that concerns about public safety and deterrence are weighed against the challenges facing the families and communities of criminally-involved men, and the difficulties inherent in prisoner re-entry. The disproportionate presence of poor men and minorities in our nation's prisons, and the economic and social challenges that incarceration brings to prisoners and their families, threatens to transmit profound disadvantage from one generation to the next.

### **Directions for Future Research**

While this analysis strongly suggests a negative effect of incarceration on the economic well-being of prisoners' families, it also presents several opportunities for future research. The current analysis can be strengthened by a more complete treatment of missing data in the Fragile Families survey. Multiple imputation analysis of the Fragile Families data suggests that the men who consistently respond to the surveys are systematically different from those who are missing; they are less likely to be minorities, more educated, higher earners, and more likely to remain in relationships with the mother of the focal child. These men are thus more likely to have positive economic and social influences in their lives, and less likely to be as strongly affected by incarceration than those men missing from the surveys. The use of dummy variables for missing data helps to deal with bias in this analysis, but a more complete missing data analysis would be enlightening.

Second, to strengthen our estimation of a causal incarceration effect, we are interested in exploring potential instrumental variables that might determine fathers' incarceration histories with no direct effects on child or family outcomes. We have examined the effects of race-specific state incarceration rates to predict whether or not fathers have been incarcerated, and find a significant relationship between state incarceration rates and family support. However, we are concerned that state incarceration rates might affect individual contributions not only through their effects on individual incarceration, but on the response of state labor markets to incarceration levels. We are interested in exploring other, more policy-driven, instruments.

In future analyses, we are also interested in examining the effects of incarceration on other dimensions of fathers' involvement with their children, and on other, non-economic measures of child well-being. Given that approximately half of fathers in prison were not living with their children at the time of their incarceration, our analysis of father involvement must examine whether their incarceration spells came before or after the birth of their child, and where possible, whether the incarcerated fathers were living with their children before going to jail or prison, and how any effects of incarceration are moderated by their pre-prison parenting experiences. Turning to child well-being, we also plan to examine a number of behavioral measures when the children are five years old. Preliminary analyses suggest that children whose parents have been incarcerated display more aggressive behavior than their counterparts. We plan to examine the extent to which this

aggression is tied to the fathers' incarceration itself, or to the fathers' parenting behavior before going to jail or prison.

Table 1. Covariates used in analyses of incarceration and fathers' contributions		
Early-life (or time-invariant) characteristics	Additional regressors for wage equation	Other potentially endogenous regressors
Race/ethnicity <ul style="list-style-type: none"> <li>• Black</li> <li>• White</li> <li>• Hispanic</li> <li>• Other</li> </ul> Impulsivity Cognitive Ability Father involvement <ul style="list-style-type: none"> <li>• Biological father</li> <li>• Social father</li> </ul>	Baseline age Baseline age (squared) Baseline education <ul style="list-style-type: none"> <li>• Less than HS</li> <li>• HS graduate</li> <li>• Some college</li> <li>• College graduate</li> </ul>	Baseline relationship status <ul style="list-style-type: none"> <li>• Married</li> <li>• Cohabiting</li> <li>• Nonresident</li> </ul> Year 1 marijuana use Year 1 hard drug use Year 1 alcohol (>5 drinks) Year 1 Mental health <ul style="list-style-type: none"> <li>• Major Depression diagnosis</li> </ul> Year 1 employment Year 1 wage Year 1 off-books work Multiple partner fertility by year 1

Table 2: Baseline and Year 1 Differences Between Fragile Families fathers, by Incarceration History			
	Ever-Incarcerated	Never-Incarcerated	Incarceration Unknown
Past-year financial contributions (Y5)*** (outcome variable)	\$2,031 [4944]	\$7,828 [9286]	\$2,489 [5651]
Percent of men contributing (Y5)***	42% [0.493]	72% [0.451]	23.2% [0.423]
Average nonzero contribution level (Y5)***	\$4,186 [6432]	\$9,631 [9420]	\$5343 [7309]
% white***	12% [.3294]	29% [.4527]	16% [.3682]
% black***	59% [.4926]	39% [.4874]	40% [.4906]
% Hispanic	25% [.4351]	28% [.4477]	37% [.4835]
% other race	4% [.1871]	5% [.2136]	1% [.2521]
Impulsivity (0=low, 6=high)***	2.0 [1.9715]	1.2 [1.5819]	1.2 [1.6937]
Cognitive score (1=low, 15=high)***	6.4 [2.5006]	6.9 [2.7099]	6.4 [2.89]
% who grew up with biological father	62% [.4865]	75% [.4317]	76% [.4287]
% who grew up with social father***	46% [.4985]	35% [.4786]	35% [.4784]
Age at baseline***	26.2 [6.7479]	29.2 [7.4366]	29.3 [7.2501]
% HS dropout***	45% [.4976]	23% [.4187]	32% [.4677]
% HS graduates***	36% [.4798]	30% [.4572]	30% [.4606]
% some college***	18% [.3839]	28% [.4497]	23% [.4205]
% college graduates***	1% [.1101]	20% [.3964]	15% [.3533]
% employed (Y1)***	65% [.4766]	89% [.3136]	84% [.3709]
Wage (Y1, 2000\$)***	\$8.52 [6.8056]	\$14.68 [12.0373]	\$13.53 [11.3865]
% working off-books (Y1)***	42% [.4938]	29% [.4518]	25% [.4327]
% married	8% [.2716]	41% [.4922]	26% [.4375]
% cohabiting	41% [.4912]	34% [.4743]	31% [.4625]
% nonresident	51% [.4999]	25% [.4313]	43% [.4959]
% with multiple partner fertility (Y1)***	50% [.5001]	25% [.4315]	33% [.472]
% using hard drugs (Y1, past-month)	1% [.0891]	0% [.059]	0% [0]
% using marijuana (Y1, past-month)***	12% [.3218]	5% [.212]	3% [.1683]
% having 5+ drinks (Y1, past-month)	28% [.4487]	25% [.4324]	25% [.4357]
% with Major Depression (Y1)***	14% [.345]	8% [.2716]	6% [.2344]

Observations	2008	1968	676
Standard deviations in brackets			
Table 3: Distribution of Fragile Families fathers, and average year 5 contribution levels, by year 5 relationship and incarceration status			
	Ever-Incarcerated	Never-Incarcerated	
Married (Y5)	N=204 (12% of ever-incarcerated) Average Contribution = \$6306	N=856 (49% of never-incarcerated) Average Contribution = \$12,280	
Cohabiting (Y5)	N=193 (11% of ever-incarcerated) Average Contribution = \$4,845	N=231 (13% of never-incarcerated) Average Contribution = \$5,805	
Nonresident (Y5)	N=1,326 (77% of ever-incarcerated) Average Contribution = \$964	N=649 (37% of never-incarcerated) Average Contribution = \$2,677	
N=3,459 fathers for whom relationship, incarceration, and contribution status are known at Y5 Fathers with incarceration status, residence status, or contribution level unknown are omitted.			

Table 4: Coefficients from Tobit regression models, predicting fathers' contributions as a function of incarceration and other characteristics (continued on following page)

Model	(1)	(2)	(3)	(4)
Ever-Incarcerated?	-9,290.82 [368.904]**	-6,299.86 [357.390]**	-4,739.42 [349.870]**	-3,162.01 [356.596]**
Race/Ethnicity (White = reference group)				
Black		-7,596.52 [475.769]**	-5,282.27 [471.561]**	-3,237.43 [478.573]**
Hispanic		-5,868.46 [527.499]**	-3,162.70 [527.526]**	-2,315.77 [517.591]**
Other race		-3,274.29 [950.052]**	-3,182.74 [904.413]**	-2,505.25 [882.311]**
Impulsivity (0=low, 6=high)***		-466.847 [112.440]**	-200.789 [107.754]	-77.47 [107.050]
Cognitive score (1=low, 15=high)***		256.669 [69.394]**	42.933 [67.560]	26.622 [65.756]
Grew up with biological father?		1,736.96 [411.542]**	1,142.61 [391.316]**	984.076 [379.055]**
Grew up with social father?		-630.961 [372.167]	-326.576 [353.326]	-185.078 [343.007]
Age at baseline			705.071 [137.102]**	419.322 [137.278]**
Baseline age squared			-9.74 [2.151]**	-5.719 [2.125]**
Education (HS Graduate = reference group)				
Less than HS			-716.064 [432.511]	-287.517 [420.642]
Some college			2,005.69 [452.713]**	1,370.42 [440.292]**
College Graduate			8,527.26 [638.029]**	6,476.08 [639.790]**
Baseline Relationship (Nonresident = reference group)				
Married at baseline				4,934.40 [475.772]**
Cohabiting				2,417.06 [371.757]**
Employed at Y1				770.356 [501.288]
Log wage at Y1				1,919.81 [269.025]**
Worked offbooks at Y1?				-139.886

				[359.763]
Table 4: Coefficients from Tobit regression models, predicting fathers' contributions as a function of incarceration and other characteristics (Continued from previous page)				
Model	(1)	(2)	(3)	(4)
Multiple partner fertility at year 1				-1,445.25 [364.783]**
Past-month hard drug use at year 1?				554.113 [2,335.424]
Past-month marijuana use at year 1?				787.151 [656.715]
5+ drinks in the past-month (Y1)?				-458.75 [388.581]
MD at year 1?				-1,391.95 [584.804]*
Constant	6,718.57 [245.205]**	10,066.94 [817.986]**	-3,864.70 [2,267.610]	-7,527.89 [2,294.7]**
Observations	3796	3796	3796	3796
Standard errors in brackets * significant at 5%; ** significant at 1%				

Table 5: Marginal Effects of Incarceration on fathers' probability of contribution, and on the conditional contribution amount

	(1)	(2)	(3)	(4)
Marginal effects of incarceration on the probability uncensored				
	-35.6%***	-26.8%***	-21.4%***	-14.9%***
Marginal effects of incarceration on conditional contribution levels				
	-\$3683***	-\$2537***	-\$1945***	-\$1309***

Table 6: Comparing Descriptive Regression findings to those from Propensity Score Analysis

	Descriptive Regression 2	Propensity Scores
Incarceration regression coefficient		
	-6,299.86 [357.390]***	-7149.57 [400.675]***
Marginal effects of incarceration on the probability uncensored		
	-26.8%***	-33.6%***
Marginal effects of incarceration on conditional contribution levels		
	-\$2537***	-\$2708***
N	3,796	2,451
<ul style="list-style-type: none"> <li>• All three models control for the “early-life” characteristics described in Table 1.</li> <li>• Propensity Score results are based on a Tobit regression using the matched sample, weighted by each individual’s number of matches.</li> </ul>		

Table 7: Effects of a First Incarceration on Fathers' Contributions			
	Table 3, Model 4 (Full Sample)	Table 3, Model 4 (Limited Sample)	Limited Sample, Controlling for Y1 Contributions
Incarceration regression coefficient			
	-3,162.01 [356.596]**	-3070.26 [552.61]***	-2988.72 [552.33]***
Marginal effects of incarceration on the probability uncensored			
	-14.9%	-13.8%	-13.9%
Marginal effects of incarceration on conditional contribution levels			
	-\$1309	-\$1448	-\$1443
N	3,796	2,069	2,069
<ul style="list-style-type: none"> <li>• All three models control for the “early-life” characteristics described in Table 1.</li> <li>• Propensity Score results are based on a Tobit regression using the matched sample, weighted by each individual’s number of matches.</li> <li>• IV results use 2001 state-race specific incarceration rates to predict incarceration history, with a Tobit second stage left-censored at zero. Both stages also control for state-level unemployment in 2002</li> </ul>			

Table 8: Testing mediators of the relationship between fathers' incarceration and family contributions. Including controls for race, impulsivity, cognitive ability, and family background

	(1) Early-life Covariates	(2) Mediated by Y5 Earnings	(3) Mediated by Y5 Earnings and Off- books Earnings	(4) Mediated by Y5 Relationship	(5) Mediated by Earnings and Relationship	(6) Mediated by Earnings, Relationship, and Mother's Repartnering
Incarceration Coefficient	-6299.9 [357.4]***	-3373.8 [380.0]***	-3431.1 [379.0]***	-3351.0 [340.6]***	-1385.0 [370.2]***	-1325.13 [371.6]***
Y5 Marriage (ref=Nonres)				10407.9 [379.2]***	8371.0 [395.9]***	7965.1 [429.1]***
Y5 Cohabiting (ref=Nonres)				7149.6 [458.8]***	6235.5 [463.5]***	5834.0 [490.6]***
Y5 log earnings		2135.9 [92.2]***	2182.5 [94.0]***		2011.61 [88.1]***	2009.5 [88.7]***
Y5 mother repartnered?						-1385.3 [567.3]***
Y5 Off-books Earnings (logged)			245.1 [56.9]***			

Table 9: Sensitivity of estimated incarceration effect to the definition of financial contributions Varying the contribution of resident fathers (as a percent of total earnings)

Percent of earnings contributed by resident fathers	Baseline 25% of earnings	20% of earnings	15% of earnings	10% of earnings
Incarceration regression coefficient				
	-3,162.01 [356.596]***	-2580.09 [482.93]***	-2062.85 [417.93]***	-1587.37 [367.96]***
Marginal effects of incarceration on the probability uncensored				
	-14.9%	-13.0%	-12.4%	-11.2%
Marginal effects of incarceration on conditional contribution levels				
	-\$1309	-\$1243	-\$964	-\$701
<ul style="list-style-type: none"> <li>All three models control for the "early-life" characteristics described in Table 1.</li> <li>All models assume that nonresident fathers contribution is based on formal and informal child support.</li> </ul>				

## Appendix A: Propensity Score Analysis

We use a propensity score matching model to further control for heterogeneity between the Fragile Families fathers with and without histories of incarceration. Propensity score matching allows us to estimate each individual's likelihood of being incarcerated, and compare the outcomes of incarcerated men to those who have never been incarcerated, but closely resemble those who do.

Each individual in our sample is given a propensity score  $p_i$  that describes the probability that they have been to prison given their observed characteristics. The propensity scores are determined using a probit regression of incarceration status on the pre-treatment characteristics described in Table 1, and indicators for missing data on each of the covariates. Individuals who have been incarcerated (the “treatment group”, for whom “ $I=1$ ”), are then matched to respondents with a similar propensity for incarceration, but have not been incarcerated ( $I=0$ , the control group). We then, as in our ordinary regression models, estimate a Tobit model to predict the effect of incarceration on earnings, but restrict our analysis sample to those individuals with histories of incarceration, and their matched controls. (Each control observation is weighted by the number of times they are used as a match, to give greater weight to those individuals who most closely resemble the men with incarceration histories.) Ordinary regression, by contrast, includes all respondents, regardless of whether they are observably similar to those in the treatment group.

The probit estimates predicting men's histories of incarceration are presented in Table A.1. As expected, the early-life covariates we expect to affect an individual's incarceration status and his financial contributions are highly significant in predicting whether he has been incarcerated. We then test for covariate balance, following the example of Rosenbaum and Rubin (1984). We stratify the sample into quintiles, and subject each pretreatment covariate, as well as its missing data indicator to a 2x5 analysis of variance, looking at covariate levels by incarceration status and propensity score strata<sup>5</sup>. Within each strata, none of the covariates differed significantly between the treatment and matched control groups.

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<sup>5</sup> ANOVA results are available upon request.

Table A.1: Probit model predicting incarceration history, used to generate propensity scores	
Covariate	Coefficient [Standard error]
Father race (white = reference)	
Black	.677 [.069]***
Hispanic	.316 [.077]***
Other	.184 [.136]
Impulsivity (0=low, 6=high)	.157 [.015]***
Cognitive Ability (1=low, 15=high)	-.019 [.010]*
Grew up with biological father?	-.239 [.056]***
Grew up with social father?	.164 [.051]***
Missing on race?	.920 [.323]**
Missing on impulsivity?	.543 [.065]***
Missing on cognitive ability?	.296 [.010]**
Missing on biological father?	-.358 [.322]
Missing on social father?	.031 [.140]

## **Appendix B: Comparing ever-incarcerated fathers by incarceration timing**

One of our tests of the effects incarceration involves a pre-treatment/post-treatment analysis of the men experiencing their first incarceration between their child's first and fifth birthdays. Given that most men with incarceration begin their criminal careers at an early age, we expect that those men who do not become incarcerated until after they father a child are a self-selected group, and may differ significantly from other men. Table B.1 below tests for differences between those men whose first incarceration is reported prior to year 1, and those whose first incarceration is reported between years 1 and 5. Men with incarceration histories whose status is unknown at year 1 are excluded from the comparison.

Men in the two groups are not statistically distinguishable in terms of race, but those incarcerated prior to year 1 appear to face some disadvantages in their early life. They are more likely to have grown up without their biological father, and are rated as being more impulsive than even those men whose first incarceration does not come until after their child's first birthday. However, they score higher on their test of cognitive ability. Men incarcerated prior to year 1 are also significantly older than those incarcerated later (by approximately one year), suggesting that the latter group may, at least in part, simply age into crime after their child is born.

As expected, men incarcerated before their child's first birthday are less likely to be married at baseline and more likely to be nonresident, more likely to have children by multiple partners, less likely to be employed, and more likely to have used hard drugs in the past month. These findings provide support for our concern that men's baseline and year 1 characteristics might be affected by early incarceration.

Table B.1: Comparing Ever-Incarcerated Men by the Timing of First Incarceration		
	First Incarceration by Y1	First Incarceration Between Y1 - Y5
Past-year contributions (Y5)	\$2054.76 [5048.12]	\$1994.61 [4778.66]
Past-year contributions (Y1)**	\$2249.18 [4296.64]	\$2934.01 [4135.27]
Early-Life Characteristics		
% white	13% [.3312]	11% [.3106]
% black	60% [.4906]	59% [.4922]
% Hispanic	25% [.4336]	27% [.4426]
% other race	3% [.1598]	3% [.1807]
Impulsivity (0=low, 6=high)***	2.2 [2.0208]	1.6 [1.7422]
Cognitive score (1=low, 15=high)*	6.5 [2.4876]	6.2 [2.5515]
% who grew up with biological father*	60% [.4908]	66% [.4741]
% who grew up with social father	48% [.5]	45% [.4985]
Wage Equation Covariates		
Age at baseline**	26.2 [6.3454]	24.8 [6.3004]
% HS dropout	43% [.496]	45% [.4979]
% HS graduates	39% [.4871]	34% [.4741]
% some college	17% [.3771]	20% [.4017]
% college graduates	1% [.0888]	1% [.1153]
Other (Potentially Endogenous) Baseline and Year 1 Regressors		
% married (Baseline)*	7% [.2529]	9% [.2875]
% cohabiting (Baseline)*	38% [.4855]	39% [.4891]
% nonresident (Baseline)*	55% [.4975]	52% [.5004]
% with MPF (Y1)***	53% [.4993]	39% [.4889]
% employed (Y1)***	63% [.4833]	74% [.4404]
Wage (Y1, 2000\$)	\$8.43 [6.919]	\$8.75 [6.0315]
% working off-books (Y1)	43% [.4958]	39% [.4894]
% using hard drugs (Y1, past-month)*	1% [.0972]	0% [0]
% using marijuana (Y1, past-month)	12% [.3284]	11% [.3124]
% having 5+ drinks (Y1, past-month)	28% [.4482]	26% [.4372]
% with Major Depression (Y1)	15%	13%

	[.3549]	[.3322]
Observations	1122	364
Standard deviations in brackets		

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