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Incarceration and Unwed Fathers in Fragile Families

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Criminal justice policies have resulted in millions of Americans being incarcerated over the past three decades in systems that provide little or no rehabilitation. This study uses a new dataset—The Fragile Families Study—to document poor labor market outcomes that are associated with incarceration. We find that fathers who had been incarcerated earned 28 percent less annually than fathers who were never incarcerated. These previously incarcerated fathers worked less weeks per year, less hours per week and were less likely to be working during the week prior to their interview. We also found that fathers who had been incarcerated were more likely to depend on underground employment and off-the-books earnings.

Keywords: *Earnings, employment, employment probability, ex-offenders, fathers, incarceration, labor market, offenders, prison, prison reentry*

For nearly three decades, the United States has employed crime control policies that have resulted in a tremendous expansion of its prison population—from 300,000 in 1972 to more than 2.2 million at mid-year 2005 (Harrison & Beck, 2006). The rate of Americans incarcerated in prisons and jails reached 738 per 100,000 in 2005, up from 725 in 2002 and up from 458 as late as 1990. One in every 136 United States residents was behind bars at mid-year 2005 (Harrison & Beck, 2006). At year-end 2001, a total of 5,618,000 American adults—one in 37—had been incarcerated in state or federal prisons at some point in their lifetimes (Bonczar, 2003).

In recent years, policymakers' attention has turned to the growing numbers of formerly incarcerated persons now returning to communities with deficits associated with incarceration. Since 1996, more than 500,000 prisoners have left prisons and jails each year and returned to their communities. These numbers are expected to increase dramatically in the coming years. More than 660,000 prisoners were released in 2002. That number was expected to grow to 887,000 in 2005 and 1,200,000 in 2010. It is expected that more than 3.5 million prisoners will be released during the decade (Beck, 2000; Hughes & Wilson, 2003).

Released prisoners most often return to struggling communities where they find difficulty securing the stable employment, housing and social services needed for successful reintegration (Austin, 2001; Clear, Rose, & Ryder, 2001; La Vigne & Cowan, 2005; Travis & Petersilia, 2001;). Two-thirds are arrested and half are returned to prison within three years of their release (Langan & Levin, 2002).

Researchers have sought to document deficits associated with incarceration in order to employ policies that will increase returning prisoners' chances of successful reentry into society and reduce high levels of recidivism that keep incarceration rates climbing. If indeed incarceration erodes successful labor market chances, than corrective and rehabilitative programs may be useful during periods of incarceration (Freeman, 2003; Zhang, Roberts & Callanan, 2006).

One thorny issue is the fact that those who enter prison

are often likely to have inherent human capital deficits that are associated with poor labor market outcomes—poor schooling, mental health issues, and substance abuse problems. A new national data set—the Fragile Families Study—provides new measures that allow us to control for these factors while previous studies do not and to further isolate the incarceration effect.

We discover the unwed fathers in our study who had been incarcerated during some point in their lives are in many ways not significantly different from those who had never been imprisoned. By examining the post-incarceration labor market experiences of these unwed fathers, we test the hypothesis that incarceration is significantly associated with poor labor market outcomes.

The Fragile Families Study also contains measures of participation and earnings in the underground economy. Thus we are able to test the hypothesis that fathers who had been incarcerated would more likely resort to illegitimate means for income. Last, as an added control, we include differences in state incarceration rates by race as an instrument to predict individual incarceration rates.

The Fragile Families Study

The Fragile Families and Child Wellbeing Study—a joint effort by Princeton University’s Center for Research on Child Wellbeing (CRCW) and the Center for Health and Wellbeing, and Columbia University’s Social Indicators Survey Center and the National Center for Children and Families (NCCF)—is tracking a cohort of children born between 1998 and 2000 in 20 large cities in the United States (<http://crcw.princeton.edu>).

All mothers who gave birth during the data collection period were approached in the hospital and asked to participate in the study. Approximately 93% of the mothers agreed to participate and provided locating information about the fathers, who were contacted at the hospital or shortly after the birth of the child. Approximately 75% of unmarried fathers and 90% of married fathers agreed to participate.

The baseline dataset includes 4,898 completed mother interviews (1,186 marital births and 3,712 non-marital births) and 3,830 completed father interviews. One-year follow-up

interviews were conducted between June 1999 and March 2002. The one-year data set includes 4,365 completed mother interviews and 3,367 completed father interviews. We use the full 20-city sample for our study because the nationally representative sample is substantially smaller (1300 fewer observations), and more important, the differences between descriptive statistics in the two samples are minimal (generally 0-1% and maximum 3%).

Unmarried births were oversampled and we restrict our analysis to unmarried fathers to increase homogeneity between fathers who were incarcerated and those who were not. Fragile Families data contain not only self-reports of incarceration from the ex-offenders but also reports from the child's mother. For some analyses, we supplemented self-reported data on fathers with information obtained from the mothers in place of fathers who were impossible to locate.

Previous Research

Conventional economic and sociological theories predict that incarceration reduces labor market earnings. Labor market economists beginning with Mincer (1962) and Becker (1964) found a positive relationship between human capital investments through education and on-the-job training and earnings over the lifetime. To the extent that being incarcerated impedes the development and accumulation of human capital, an incarcerated person is expected to have lower earnings and diminished labor market opportunities.

Sociologists and criminologists also argue that incarceration harms those incarcerated. In addition to lost labor market experience, incarcerated persons are expected to earn less because of the anti-social culture of prisons, negative health effects of imprisonment, and the stigma of imprisonment (Holzer, Offner, & Soresnsen, 2004; Kling, 2004; Pager, 2003; Western, Kling & Weiman, 2001).

Research in criminology and economics on the relationship between crime and the labor market has focused on the effects of economic disadvantage on criminal activity (e.g., Freeman, 1991; Hagan & Peterson, 1995). However, a few studies reverse the causal sequence to examine how involvement with the criminal justice system impacts employment opportunities.

With one exception, all of these studies find large negative effects. The most recent, by Western (2002), uses a nationally representative sample of young men, the National Longitudinal Survey of Youth (NLSY) and finds incarceration reduced wage rates by 16 percent, after controlling for individual-level fixed effects and period effects to account for declining wages among low-educated men. An earlier study by Freeman (1991) also using the NLSY (but limiting the sample to high school dropouts) finds that after controlling for pre-incarceration employment and other demographic differences, incarceration reduced work probability by 25 to 30 percent.

Other research has used data generated by the criminal justice system. Because the data are limited to those arrested and/or convicted, estimates of the effects of incarceration are produced by use of comparison groups, before-after comparisons, and instrumental variables techniques. Waldfogel (1993) found that conviction of offenders who committed fraud or breached jobs that required trust reduced employment opportunities by five percent and depressed income by as much as 30 percent. His sample was primarily white (83.3%) and better educated than the general population. Nagin & Waldfogel (1998) used the same data in a 1998 study and found that first-time conviction effects vary significantly by age while subsequent convictions effects reduced income at all ages.

Grogger (1995) found moderate and short term effects on annual earnings, quarterly earnings, wage rates, and employment for both jail and prison experiences over time. Because his data do not contain information on length of prison sentence, he had no way of distinguishing between declines in earnings during incarceration from post-incarceration earnings declines.

Kling (2004), using data from the Florida state system and California federal system, did not find any negative effects of incarceration length on employment and earnings seven years after incarceration after controlling for a battery of individual characteristics and adding instrumental variables for sentence length based on random judge assignments. In fact, he found that longer incarceration sentences were associated with more positive labor market performance.

It is important to note that our measure of incarceration is a self-reported retrospective measure. Fathers and mothers were asked to report information about the father's incarceration history. If either the mother or father reported that the father had ever been incarcerated, he is considered "ever incarcerated;" if both report that the father had never been incarcerated or one reports no prior incarceration and the other's report is missing, he is coded as "never incarcerated;" if reports from both mother and father are missing, he is coded as "incarceration status unknown." The combined measure is used for multivariate analyses. Fathers who were incarcerated at the time of the interview are omitted from the analyses.

A substantial number of mothers reported the father had been incarcerated when he had reported he was not or did not provide an answer. Previous research relying on self-reported data finds significant under-reporting of criminal activity (Viscusi, 1986). Thus we were able to overcome the under-reporting of fathers by using the mother's report. It is reasonable to accept the mother would have knowledge about the father's incarceration history.

In the full sample, 34 percent of the mothers reported the father had been incarcerated while only 16 percent of the fathers self-reported incarceration, for a combined incarceration rate of 39 percent. In the fathers' sample, 31 percent of the mothers reported the father had been incarcerated while 22 percent of the fathers self-reported incarceration, for a combined rate of 38 percent. So, the rates of incarceration in both samples are nearly identical.

That the combined reports of the mothers and fathers—38%—is seven percentage points higher than mothers reports alone suggests that mothers also under-reported the incarceration experience of their partners. Note also that, as expected, the combined estimate in the full mother sample—39%—is higher than the combined estimate in the father-interviewed sub-sample, but only by a small margin.

In the full sample, 57 percent of the mothers reported the father had never been incarcerated, while 62 percent of the mothers in the father sample reported the father was never

incarcerated. Just 4 percent of the fathers in the full sample and 1 percent of the fathers in the smaller sample had unknown incarceration histories.

Given that our principal concern is the relationship between incarceration and post-incarceration labor market experience, a second advantage of Fragile Families data is that they provide additional control variables other than age, education, and ethnicity—all included in previous studies on incarceration. Fragile Families data also include measures on the subject's physical and mental health, drug and alcohol use and problems, and relationship with his biological father.

Because slightly more than a quarter of the fathers were not interviewed, we use mother-reported data about the father's incarceration history and labor market experience to analyze the full sample ($N=3,293$) allowing for the largest possible number of cases and eliminating potential selection bias if we limited the sample to interviewed fathers. However, the mothers' surveys only allow us to analyze one employment outcome—whether or not the father worked for pay the previous week. The sub-sample of fathers ($N=2,406$)—though smaller than the full mother interview sample—allows for an evaluation of a richer array of dependent variables for employment and earnings.

Using the smaller father sample raises questions of selection bias because it is likely fathers who made themselves available for interview are more attached to their children or to the mothers of their children. We expect the men in the fathers' sub-sample to work more and to have experienced less incarceration. Thus, limiting the study to these fathers may lessen the expected negative effects of incarceration on outcome variables.

Data Analysis

Descriptive statistics on the dependent and independent variables in our analysis are presented in Table 1. Presented in the first column are data for all fathers in the sub-sample. The next two columns compare fathers who were incarcerated to fathers who were never incarcerated. The fourth column presents data for the full mother sample.

Just over 10 percent of our sample of unwed fathers is

white, nearly 60 percent of the sample is non-Hispanic black, and slightly less than 30 percent is Hispanic. Nearly 40 percent of the fathers did not complete high school, another 40 percent have only a high school diploma, and less than 5 percent earned a college degree. Furthermore, 17 percent of fathers reported drug or alcohol problems that interfered with their work or family, 16 percent reported some symptoms of depression, 17 reported poor or bad health, and 33 percent grew up without their father. These statistics are consistent in both the full sample and the smaller sample of fathers.

Almost three-quarters of the fathers in both samples reported they were employed the week prior to their interview. That the proportion in the sub-sample is nearly identical to the proportion in the full sample of mothers reports, suggests the sub-sample may suffer minimally from bias. Fathers reported an average of \$21,315 in annual salary; they worked about 38 weeks in the year on average; and worked about 44 hours per week. These fathers reported average hourly earnings of \$12.83. About a third of the fathers reported they worked underground and earned slightly less than \$2,600 of-the-books on average annually.

There is a large gap in work and earnings between fathers who had been incarcerated and those had never been incarcerated. Previously incarcerated fathers were only three-quarters as likely to be working last week, worked 10 fewer weeks per year, worked five fewer hours per week, earned about \$1 per hour less, and earned \$10,000 less annually. Previously incarcerated fathers also worked and earned more in the underground economy.

Previously incarcerated fathers in our study are more disadvantaged—more likely to be black and Hispanic, to have grown up without a father, to be a high school dropout, and to have poor physical and mental health. Some of these disadvantages such as health and mental health may be a result of incarceration. But others, such as race/ethnicity and growing up without a father clearly precede incarceration and are likely to contribute to differences in labor market outcomes.

Descriptive statistics indicate fathers who had been incarcerated differed from those who were not in ways that would lead them to have lower earnings even if they had not been incarcerated. Therefore, we use multivariate analyses to control

Table 1: Descriptive Statistics among Unmarried Fathers*

| | Father Sample (N=2,406) | | | | | | Mother Sample (N=3,293) | |
|-----------------------------------|-------------------------|--------|-------------------|--------|--------------------|--------|-------------------------|------|
| | All Fathers | | Ever Incarcerated | | Never Incarcerated | | Mean | S.D. |
| | Mean | S.D. | Mean | S.D. | Mean | S.D. | | |
| <i>Regular Sector</i> | | | | | | | | |
| Worked last week? (mother report) | 0.73 | 0.44 | 0.58 | 0.49 | 0.83 | 0.38 | 0.72 | 0.45 |
| Worked last week? | 0.73 | 0.44 | 0.60 | 0.49 | 0.81 | 0.39 | X | X |
| Annual Earnings | 21,315 | 57,270 | 15,939 | 18,353 | 24,525 | 70,791 | X | X |
| Weeks worked past 12 months | 37.85 | 19.48 | 31.59 | 21.34 | 41.66 | 17.19 | X | X |
| Hours worked per week | 43.78 | 19.40 | 40.87 | 21.76 | 45.56 | 17.59 | X | X |
| Hourly wage rate | 12.83 | 37.15 | 12.18 | 38.12 | 13.19 | 36.63 | X | X |
| <i>Underground Work</i> | | | | | | | | |
| Participated? | 0.35 | 0.48 | 0.43 | 0.49 | 0.31 | 0.46 | X | X |
| <i>Underground Earnings</i> | | | | | | | | |
| Annual Earnings | 2,546 | 13,013 | 3,277 | 14,922 | 2,173 | 11,695 | X | X |
| <i>Control Variables</i> | | | | | | | | |
| Age | 27.8 | 7.1 | 27.8 | 7.0 | 27.8 | 7.1 | 27.8 | 7.2 |
| Non-Hispanic White | .13 | .34 | .14 | .34 | .13 | .33 | .12 | .32 |
| Non-Hispanic Black | .56 | .50 | .62 | .49 | .53 | .50 | .58 | .49 |
| Hispanic | .28 | .45 | .22 | .42 | .31 | .46 | .28 | .45 |
| Other Race | .03 | .17 | .02 | .15 | .03 | .17 | .03 | .16 |
| < High School | .39 | .49 | .45 | .50 | .35 | .48 | .39 | .49 |
| High School Graduate | .36 | .48 | .37 | .48 | .36 | .48 | .38 | .48 |
| Some College | .21 | .41 | .16 | .37 | .24 | .43 | .20 | .40 |
| College Graduate | .04 | .18 | .01 | .11 | .05 | .22 | .03 | .18 |
| Had Drug/Alcohol Problem | .17 | .37 | .22 | .42 | .17 | .37 | X | X |
| Depressed 2 Weeks | .16 | .37 | .20 | .40 | .14 | .35 | X | X |
| Poor Health | .17 | .38 | .21 | .41 | .15 | .35 | X | X |
| Not Involved with Father | .33 | .47 | .38 | .48 | .30 | .46 | X | X |

* All dependent variables are based on father reports unless otherwise noted.

for these differences. We use logistic regression for the dichotomous dependent variable indicating whether the father was working during the previous week and ordinary least squares regression to analyze outcomes using the smaller father-reported sample.

Our multivariate analyses include logistic models using the full sample of mother-reported data and models using father-reported data with additional control variables not found in previous studies. The father-reported data provide ratio-level measures that allow for ordinary least regressions. We present a model that includes variables for age, education, race/ethnicity—controls used in previous studies, and a model that includes additional variables for drug and alcohol problems, mental health, poor health, and relationship with biological father—controls not used in previous studies.

Results

Odds ratios for the effects of incarceration on whether fathers were employed during the week prior to being interviewed are presented in Table 2. Model 1 reports coefficients using the full sample of mother-reported data. As expected, there is a significant association between incarceration and employment with fathers who had been incarcerated 34 percent as likely to be working the previous week compared with fathers who had not been incarcerated. Using father-reported data, the association is weaker, but still highly significant with fathers who had been incarcerated 57 percent as likely to be working in Model 3 with all controls added.

While our primary focus is the association of incarceration and employment, there are other factors that are interesting although predictable. Race and education are significant factors in our models as are the additional control variables. In Model 3, with all controls added, black fathers are 41 percent as likely to be working compared with white fathers. Fathers of other races were also significantly less likely to be working than white fathers. Also in Model 3—as expected—as the father's education level increases, so is the likelihood that he would be working compared with those who dropped out of high school.

Table 2: Odds Ratios of the Effects of Incarceration on Fathers' Employment Last Week^a

| | Model 1 Full Sample | Model 2 Father Sample | Model 3 Father Sample |
|--------------------------|------------------------|--------------------------|--------------------------|
| Ever incarcerated | **0.34 (10.85) | **0.53 (5.91) | **0.57 (4.98) |
| Incarceration unknown | +0.49 (1.87) | --- | --- |
| Never incarcerated | | <i>(omitted)</i> | |
| Age | **1.02(2.71) | 1.00 (0.47) | 1.01 (0.72) |
| Non-Hispanic black | **0.33 (5.68) | **0.40 (4.60) | **0.41 (4.20) |
| Hispanic | .69 (1.64) | 1.11 (.46) | 1.13 (.51) |
| Other race | ** .30 (3.51) | ** .34 (3.14) | ** .35 (2.98) |
| Non-Hispanic white | | <i>(omitted)</i> | |
| High school graduate | **1.67 (4.64) | **1.68 (4.31) | **1.49 (3.18) |
| Some college | **2.21 (5.53) | **2.58 (6.07) | **2.05 (4.45) |
| College graduate | *2.23 (2.40) | **4.30 (3.68) | **3.39 (3.05) |
| Less than high school | | <i>(omitted)</i> | |
| Had Drug/Alcohol Problem | | | 0.78 (1.71) |
| Depressed 2 Weeks | | | **0.61 (3.49) |
| Poor Health | | | **0.41 (6.61) |
| Not Involved with Father | | | 0.95 (.45) |
| Constant | | | |
| Observations | 2573 | 2261 | 2212 |

Absolute value of *t* statistic in parentheses; **p*≤.05, ***p*≤.01

^aFathers who were in jail at the time of interview are excluded. City of residence is controlled for but results are not reported; “---” indicates that observations are dropped due to very few cases in cell (n=2).

Fathers reporting being depressed were 61 percent as likely to be working and fathers who reported less than good health were 41 percent as likely to be working. These results were expected. Fathers who reported they had problems with drugs and alcohol were 78 percent as likely to be working, although this was significant only at the *p*<.10 level.

The results of the OLS regressions on father-reported data on earnings are presented in Table 3. Fathers who were incarcerated during the year were excluded from the analyses because including such fathers would confound an incapacitation effect with a post-incarceration effect on earnings. In

Table 3: OLS and Logistic Regression Results for Regular Earnings, Weeks Worked, Hours Worked, Hourly Wage Rate and Off-book Employment and Earnings¹

| | Model 1 | Model 2 | IV Results |
|----------------------------------|----------------|----------------|-----------------|
| <i>Regular Sector Employment</i> | | | |
| Log of annual earnings | **-.040 (.12) | *-0.28 (.12) | *-2.73 (2.02) |
| Weeks worked | ***-4.53 (.85) | ***-3.60 (.84) | *-26.02 (2.37) |
| Hours worked per week | -1.04 (.86) | -0.56 (.87) | -12.96 (1.25) |
| Log of Hourly Wage Rate | *-.06 (2.08) | -.04 (1.26) | ** -1.13 (2.75) |
| <i>Underground Employment</i> | | | |
| Participated† | ***1.53 (4.26) | **1.43 (3.46) | -0.54 (.76) |
| Log of underground earnings | **0.78 (4.58) | **0.66 (3.81) | -3.74 (1.67) |

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

Note: OLS coefficients and standard errors in parentheses for OLS regression models when dependent variables are continuous.

†Odds ratios and t statistic in parentheses for logistic regression on participation in underground employment.

¹City of residence is controlled for but results are not reported. For dependent variables log annual earnings, annual weeks worked, and annual off-book earnings, fathers who were in jail at the time of interview and those in jail partial year during last 12 months are excluded. Model 1 controls for age, race/ethnicity, education, and city of interview—controls used largely in previous studies; Model 2 adds controls for drug problems, depression, poor health, and whether the father's was involved with his biological—controls not generally included in previous studies.

Model 2—with all control variables included—previously incarcerated fathers reported 28 percent less earning than fathers who had never been incarcerated, significant at the $p < .05$ level. Previously incarcerated fathers also worked 3.6 fewer weeks per year (highly significant at the $p < .001$ level) and worked a half-hour less per week, although this result was not significant. We found that previously incarcerated fathers earned a slightly smaller but not significant hourly wage rate than those who were never imprisoned.

Logistic regression analysis found that previously incarcerated fathers were significantly more likely to participate in underground or off-the-books employment. The odds were

nearly 1.5 times that previously incarcerated fathers would be involved in illegitimate work. These fathers who had been incarcerated earned 66 percent more in the underground economy than fathers who had never been incarcerated.

The results of our analysis provide strong evidence that, even after controlling for a substantial number of demographic and behavioral differences between offenders and non-offenders, ex-offenders work and earn substantially less in the legitimate market. Still, the possibility remains that some or most of the difference is due to unmeasured differences between offenders and non-offenders. We use instrumental variables to address the causation issue.

The state incarceration rates are taken from the Bureau of Justice Statistics and are presented in the Appendix. State incarceration rates are a significant predictor of differences in individual incarceration rates, indicating they are good instrumental variables. The third column in Table 3 presents second stage IV coefficients and standard errors for earnings and labor market variables. First, note that all IV coefficients for the legitimate labor market variables are negative and all, except for the hours worked, are statistically significant.

Second, the IV coefficients are quite large, especially when compared to the OLS coefficients. But, the range of variation in the aggregate incarceration rates underlying the IV estimates—.30 to .44—is much lower than the individual range of variation, zero to one. Indeed, when the IV coefficients are multiplied by the difference between the highest and lowest incarceration rates—.14—the implied reductions in earnings closely resemble those from the OLS coefficients in magnitude. The reductions in earnings due to incarceration are respectively 28 percent vs. 42 percent. In short, the OLS and IV legitimate earnings results are within a reasonable range of consistency. Both indicate that the effects of incarceration on earnings are quite large. The IV results for underground work and earnings were not significant.

Summary and Discussion

The Fragile Families Study is a new set of data that allows us

to analyze the labor market outcomes of two cohorts of unwed fathers from a 20 city study who share much in common. This is unique in the research literature as most studies on incarceration and labor market outcomes rely on administrative data that analyze pre-post outcomes of ex-offenders. Our study provides additional evidence that incarceration is associated with poor labor market outcomes. We also found that the previously incarcerated fathers in our study relied more on illegitimate employment and earnings.

Our findings are consistent with previous findings in the literature. We found that incarceration is associated with a 28 percent reduction in annual earnings which is consistent with the literature that generally reports a 10-30 percent earnings loss associated with imprisonment (Western, 2002). The significant reduction in employment probability in our study is consistent with the findings of Freeman (1991) who found incarceration reduced work probability by 25 to 30 percent.

Unlike Western (2002), who found incarceration reduced wage rates by 16 percent, we found no significant difference in wage rates. That we did not find significant lower wage rates between previously incarcerated fathers and those who were not, suggests the penalties paid by incarcerated fathers were in the form of reduced employment opportunities. That is, their lower earnings were the result of their difficulty in finding and keeping stable employment. This is supported by our finding that the odds of previously incarcerated fathers in our study working the week prior to their interview is significantly lower—57 percent as likely—than those of the never incarcerated fathers.

This study is limited by our use of the full 20-city Fragile Families data instead of the nationally-representative data we are not able to generalize these findings beyond the unwed fathers in this study. However, because the full set of data is minimally different than the nationally-representative data, we cautiously present these findings as evidence that incarceration rates are significant among young unwed fathers—40 percent of the fathers in our study were identified as having been incarcerated.

While not conclusive, there is evidence from this study that previously incarcerated fathers are more disadvantaged

than those fathers who never went to prison—they were more likely to grow up without a father in the home, more likely to be from a racial/ethnic minority, and more likely to drop out of high school. Thus, we would expect that they would have earned less even if they had never been incarcerated.

Although controlling for observable differences between the fathers who had been incarcerated and the non-offenders significantly reduced the differences in work and earnings, the remaining differences—even after controlling for variables that may be endogenous to incarceration—are still quite large. Because it is likely that there are unmeasured differences between those who were and those who were not incarcerated, we used instrumental variables analysis to isolate the causal effect of incarceration. The instrumental variables analysis provides additional evidence that incarcerated fathers are seriously harmed by the experience.

For policymakers, there are also costs to society to consider. State governments spend more than \$22,000 per year on average to house an inmate and annual state correction costs were \$38.2 billion in 2001, an average of \$134 per resident, up from \$66 in 1996 (Stephan, 2004). These rising costs are competing for escalating demands from other social needs such as education and health care (Jacobson, 2005). Reducing recidivism and its concomitant costs, particularly for non-violent ex-offenders, will be a pressing matter on the agenda of many state legislatures in the days to come.

Prisoner reentry advocates stress the need to address problems while prisoners are incarcerated. More rehabilitation programs, more drug and mental services, and more employment training should be promoted. Jacobson (2005) offers several viable policy ideas that would save states money if they addressed problems early. A bill that has the support of President Bush—The Second Chance Act of 2004—is slowly moving through the congressional process; increased efforts should be made to raise public awareness and support for this bill. Amending mandatory minimum laws, using technology and other monitoring strategies in community-based sanctions, enhancing juvenile delinquency prevention and generally improving inner-city schools can have a profound impact on incarceration rates.

One novel idea would be clemency for released first-time nonviolent offenders. Criminal arrest and conviction records often follow released inmates decades after they have paid their debts to society. Employers routinely deny jobs to individuals with criminal records no matter how minor their offenses. First-time nonviolent offenders who refrain from criminal activities for five years should be able to petition to have their records expunged and full rights restored.

While not conclusive, this study adds to existing evidence that incarceration is strongly associated with poor labor market outcomes. There is an obvious need for more research on incarceration and its implications for society. Much more needs to be done to document the harmful effects incarceration may have on prisoners, their families and communities.

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Appendix Table: State Number of Prison and Jail Inmates per 1,000 Population by Race at Midyear 2001

| City | State | White | Black | Latino | All |
|----------------|---------------|-------|-------|--------|------|
| Oakland | California | 4.70 | 27.57 | 8.27 | 6.97 |
| San Jose | California | 4.70 | 27.57 | 8.27 | 6.97 |
| Jacksonville | Florida | 5.36 | 25.91 | 2.35 | 7.72 |
| Chicago | Illinois | 2.51 | 18.89 | 3.81 | 5.12 |
| Indianapolis | Indiana | 3.91 | 22.36 | 4.54 | 5.45 |
| Baltimore | Maryland | 2.48 | 16.86 | 5.89 | 6.57 |
| Boston | Massachusetts | 2.06 | 15.62 | 13.09 | 3.59 |
| Detroit | Michigan | 3.69 | 22.47 | 5.68 | 6.44 |
| Newark | New Jersey | 1.61 | 21.17 | 6.93 | 5.03 |
| New York | New York | 1.73 | 16.38 | 10.21 | 5.46 |
| Toledo | Ohio | 3.24 | 22.79 | 5.60 | 5.58 |
| Philadelphia | Pennsylvania | 2.44 | 25.70 | 16.80 | 5.33 |
| Pittsburgh | Pennsylvania | 2.44 | 25.70 | 16.80 | 5.33 |
| Nashville | Tennessee | 3.92 | 19.91 | 3.63 | 6.47 |
| Austin | Texas | 6.40 | 32.87 | 8.00 | 9.66 |
| Corpus Christi | Texas | 6.40 | 32.87 | 8.00 | 9.66 |
| San Antonio | Texas | 6.40 | 32.87 | 8.00 | 9.66 |
| Norfolk | Virginia | 3.61 | 22.68 | 2.42 | 7.20 |
| Richmond | Virginia | 3.61 | 22.68 | 2.42 | 7.20 |
| Milwaukee | Wisconsin | 3.50 | 40.58 | 9.74 | 6.05 |