Have High Black Imprisonment Rates Contributed to African American Child Poverty?

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Abstract

From the early 1980s through 2000, the number and the percentage of African American men in prison skyrocketed. This would be expected to have negative impacts on Black well-being, but Black child poverty generally decreased during this period. Using data from the U.S. Prison Census and the Current Population Survey for the period from 1983-1998, we examine the effects of Black imprisonment on Black household composition and Black child poverty, with special attention to the effect of state Black imprisonment rates on household composition and income. Net of controls, state Black male imprisonment rates increase child poverty through reducing the likelihood that the child's father lives with the family and reducing the income in two-parent families, especially at low parental education levels.. Lagged effects of imprisonment are strong than immediate effects.

Incarceration has become a major factor in the social and economic structure of the United States, especially for African Americans. From the early 1980s through 2000, the number and the percentage of African Americans in prison skyrocketed. By 2000, 12% of Black men in their twenties were in a state or federal prison, and over 20% of Black men ages 25-44 had been in prison at least once (Bonczar 2003). Previous sociological theory and research on the correlates of poverty, as well as common sense, suggest that removing substantial numbers of African American men from the labor force would be associated with increases in African American child poverty. Nevertheless, the simple time trends seem to contradict this intuition. The poverty rate for all Black children declined from 42 percent in 1980 to 30 percent in 2000, and the Black-White gap in poverty narrowed somewhat. Much of this decline occurred during the economic expansion of the later half of the 1990s. Of course, many other factors besides incarceration rates affect child poverty, and these factors can mask or distort the

relationship between incarceration rates and child poverty. In this paper, we demonstrate that, with appropriate controls, sociological theory and common sense are vindicated. There is, in fact, a significant positive association of Black male imprisonment with Black child poverty. Having demonstrated this basic relationship, we investigate some of the mechanisms producing it, and suggest the directions future research should take.

Although sociologists often write as if poverty, crime, and incarceration are all tightly coupled, the causal relationships between Black imprisonment and Black poverty are not straightforward. As figure 1 suggests, nationally, Black imprisonment rose markedly from 1983 to 1999 while Black poverty rates generally declined. In a separate analysis (Oliver and Yocom 2004), we have found that the different components of total incarceration rates (new sentences for various offenses, probation/parole revocations) are differently related to poverty. In particular, drug sentences are negatively related to poverty, while theft sentences and probation/parole revocations are positively related to poverty. It is drug sentences especially and probation/parole revocations that are associated with the massive increases in Black incarceration. These patterns suggest that imprisonment is caused by additional factors besides poverty, and opens the possibility that imprisonment levels may affect future levels of poverty.

Massive incarceration has to have massive effects on Black communities, but this has only recently been recognized (see, for example, the 1996 conference papers by Clear, Hagan, Moore, and Nightingale & Watts). It is hard to imagine how these effects could be fundamentally positive, but they are complex and multifaceted. There are a couple of ways in which imprisonment may reduce either poverty itself or measured levels of poverty. When imprisonment rates are relatively low, a case can be made that

communities may be helped by the removal of disruptive and predatory persons from their midst. High crime rates weaken the social fabric that promotes education and legitimate economic activities. Those imprisoned are disproportionately young, ill-educated, and unemployed men, and it may be that the employability or incomes of those left behind are improved by the reduced competition for low-wage work. However, the plausibility of the case for actual positive effects declines as imprisonment rates rise, and it is difficult to imagine that any community is better off with 20% of its men having been in prison.

Imprisonment also reduces a community's apparent or measured rate of poverty, at least in the short run, by removing poor people from it. Western and his colleagues have shown that ignoring the incarcerated leads to underestimates of unemployment (Western and Beckett 1999) and racial differences in earnings (Western and Pettit 2000). The same problem adheres to poverty estimates, as incarceration tends to remove poorer people from urban communities and relocate them as an "institutionalized population" in some other (often rural) locale.

On the other hand, it is straightforward to identify the ways in which massive imprisonment is likely to promote poverty. At a minimum, massive incarceration reduces the pool of working-age men and the number of potential marriage partners for Black women, and increases the number of children who have a parent who has been imprisoned. The Bureau of Justice Statistics estimates that in 1999 7.0% of Black children had an incarcerated parent, compared to 0.8% of White children. Moreover, the majority of those incarcerated were employed at the time of arrest (including 71% of those who were parents), suggesting that they were probably economic assets rather than

liabilities to their families and communities (Mumola 2000). Although unemployed and unproductive young men are disproportionately imprisoned, many delinquent young people "age out" of delinquency and become productive contributors to society if they are permitted to do so (Gottfredson and Hirschi 1990). Large-scale imprisonment doubtless has other systemic effects, such as reducing communities' tax bases (Nightingale and Watts 1996). Some commentators argue that drug-dealing or thievery should be understood as attempts to re-capitalize Black communities devastated by industrial restructuring (e.g., Hagan 1997).

As Hagan and Dinovitzer (1999) argue in their review, there is little direct research on the effects of imprisonment on families and family structure, although standard sociological theory would imply that these effects should be deleterious. Western and McLanahan (2000) show that male incarceration reduces family formation because women are unwilling to marry men with prison records. It is often argued that the psychological and economic fallout from incarceration indirectly contributes to criminal trajectories among the children of prisoners (Felson 1994; Ferraro, Johnson, Jorgensen, and Bolton 1983; Gabel 1992; see esp. Hagan 1996; Lowstein 1986; Sampson and Wilson 1995). Advocates for families of prisoners point to other costs, including expensive collect telephone calls from prisoners, transportation to remote prisons and lost work time for visits, and the emotional tolls inherent in prison visits.

High incarceration rates not only remove men from communities, it sends them back again with diminished earning capacity. The vast majority of people sentenced to prison return to their communities. Individual-level studies document the economic liabilities of those with prison records, for example Clear, Rose, and Ryder (2001) Clear,

(1996), Travis, Solomon, and Waul, (2001), Sampson and Laub, (1995),Western, (2002) and Pager 2003). Men with prison records have more difficulty obtaining employment and lower wages when they have jobs. It is reasonable to expect that high incarceration rates will be associated with lower income for families with men in them.

Many scholars have noted the scarcity of studies of the economic effects of imprisonment on communities (e.g., Garland 2001; Moore 1996; Nightingale and Watts 1996; Western 2002). The largest that goes beyond simple demographic accounting and projections deals with the complex relationship between unemployment and crime. Chiricos and Delone (1992) report a significant relationship between labor surplus and the size of the prison population, though the relationship between labor surplus and new admissions to prison were only apparent with time-series and individual-level analyses. More recent aggregate studies continue to explore the broader relationships between economic and punitive institutions (Western and Beckett 1999; Western and Pettit 2000), and suggest that unemployment rates and Black-White earnings gaps are underestimated due to the effects of imprisonment on the composition of those sampled in making these estimates.

Insert Table 1 about here.

Child poverty is strongly associated with household structure. This is clearly seen by comparing the child poverty rates for children in married-couple families to those for children in female-householder families (panels 2 and 3 in Table 1). By 2000 the gap between Black and White children living in married-couple households had narrowed to 3 percentage points. The gap between Black and White children in female-householder families was 21 percentage points, down from previous periods, but still a very wide gap.

Forty-nine percent of Black children in female-householder families were poor relative to 8 percent of Black children in married-couple families. It is also important to note that in 2000, 77 percent of White children were living with two married parents relative to 38 percent of Black children (America's Children: Key National Indicators of Well-Being 2003). The percentage of African American children living with two married parents actually reached its low point in 1995 at 33 percent and had increased slightly to 38 percent in 2000. Among Whites the percentage of children living with two parents has held at 76-78 percent since 1995. The Black/White difference in living arrangements for children plays a substantial role in the Black/White difference in child poverty rates. The major reason is quite simple: two-parent families are more likely to have at least one full-time wage earner and often have two wage earners who bring in more money than single-parent families.

Although we know that the percentage of children with at least one parent working full-time increased for all groups from 1980 to 2000, significant differences remained by race and family structure. In 2000, 91 percent of White children in two married parent families and 52 percent of White children in single mother families had at least one parent working full-time all year compared to 89 percent of Black children in two married parent families and 48 percent of Black children in single mother families (America's Children: Key National Indicators of Well-Being 2003). The differences by family structure are much more pronounced than the differences by race. The fact that Black children are over-represented in single parent families relative to White children means that the overall gap between White children and Black children in the percentage who have at least one parent in the labor force full time all year in 2000 was 85-66 = 19

percentage points. If the high incarceration rate of Black men is significantly having an effect on the presence of men in the household and the probability of at least one adult working full-time full year, Black incarceration may be playing a significant role in Black child poverty.

Another family structure factor that affects poverty is the number of children and adults sharing a given income. Official poverty levels are adjusted for household size, creating a built-in positive relationship between poverty and household size. As figure 2 indicates, Black women's fertility In our CPS sample declined from 1.6 in 1983 to & 1.35 for all women 18-45, and from 2.14 to 1.98 for all women 18-25 who had at least one child. It seems reasonable to expect that a reduction in the number of children per adults in a community will tend to reduce child poverty, and that an increase in the number of adults in a household will tend to reduce poverty, but only if they contribute to household income.

Any attempt to address issues of poverty and incarceration has to at least consider the ways in which indicators are affected by endogeneity in the population base. Both incarceration rates and economic indicators such as poverty rates are affected by selection issues. As mentioned above, unemployment rates and earnings differentials are underestimated when incarceration rates are not taken into account (Western and Beckett 1999; Western and Pettit 2000). Poverty rates also can be distorted by the reclassification and relocation of poorer people from residential areas to prisons. Apart from this, there are other ways mobility can distort time trends in measured poverty rates. Poverty itself leads to residential mobility, which can affect the time trends for a given locale. Further, high rates of incarceration may have effects (which have not been studied) on differential

rates of either in- or out-migration from poor areas by people of different economic situations. Other the other side of the equation, incarceration rates can be inflated if a significant fraction of prison sentences are given to people who are not residents of the state where they are sentenced, and this problem is especially acute for small minority populations. We are unable, in this initial study, to provide corrections for these selection factors, but we interpret results carefully in light of these issues.

Data and Methods

This study merges individual-level data from the Current Population Survey (CPS) with our calculations of aggregate Black male imprisonment rates from the Correctional Populations of the United States (CPUS) series (1983-1998). Measures of poverty, household composition, and socio-economic factors are taken from the Annual Demographic Survey (March) of the Current Population Survey (CPS). We focus on Black people because of the patterns of racial disparity. We limit the current study to Black children under the age of 18 who reside in racially homogeneous households with their mothers, with or without their fathers.[1] Children who are not living with a parent have very heterogeneous living arrangements, making interpretation of household variables problematic. Children in father-only families may be differentially affected by male imprisonment than those children who live with women, and may also be more

[1] We focus on racially-homogeneous households for clarity of interpretation. Due to norms of racial homogamy and family homogeneity, most Black children live with adults of the same race. Black children who are identified as "Hispanic" or reside in the same household with "Hispanics" have been excluded from the analyses. Due to our need to match state-level prison data to racially similar children in the CPS data, both macro and micro-level data must be as racially/ethnically consistent as possible. Historical inconsistencies in identifying Latinos in United States prison surveys makes the inclusion of Latinos in this study especially problematic.

likely to have mothers who are currently in prison, the implications of which are beyond the scope of the current study.

Data analysis utilizes information on children from the 1983 to 1998 March CPS samples. Although the CPS is a national survey, analysis is limited to children from 27 states plus the District of Columbia. States with less than 1,500 total Black cases in the CPS in any given survey year were eliminated from the sample, as were states that had fewer than 10 Black children in the sample in any one year, or that lacked imprisonment information.[2] These states account for 98% of the total Black, and 90% of the total White, population of the US. Due to the CPS sampling designs in which households, not individuals, are sampled, the analysis sample contains children who live in the same households and are often related. Our statistical models make adjustments for this clustering.

Data numbers of Black and White people who are "in prison" are compiled for 42 states for 1983-1998 from the Correctional Populations of the United States reports, which give the numbers of men and women of each racial group who are in prison in each state as of mid-year. These are merged with Census estimates of the adult population (over 17) by race and sex, so that rates can be calculated. In this paper, we focus on the percentage of Black men who are imprisoned, that is, on the ratio of the number of Black men in prison in a given state in a given year to the Census estimate of the number of Black men over 17 in that state in that year.[3] We combine state-level

[2] States omitted from analysis due to limited Black cases are: Arizona, Hawaii, Maine, Nevada, New Hampshire, New Mexico, Oregon, Rhode Island, Utah, Vermont, Washington, and Wyoming. South Dakota has also been eliminated from the sample due to possible errors in the 1992 CPUS imprisonment data.

[3] It should be noted that people can be sentenced in a state where they do not reside and transients can inflate calculated imprisonment rates. No data exist to permit corrections for this issue, and all criminal justice statistics are subject to this source of error. In the present analysis, this factor should have a

CPUS imprisonment data for these 27 states (and Washington D.C.) to link children from the CPS sample to Black male imprisonment rates in their corresponding states of residence and survey years. The state percentage of Black males in prison is lagged one year because CPS poverty estimates are based on family income information from the previous year. In other words, measures of child poverty status from CPS survey year *t* correspond to Black male imprisonment in year *t – 1,* and the results regarding the relation between imprisonment and poverty for a given survey year actually refer to the patterns for the previous year.

Analytic Strategy. We estimate the association between Black male imprisonment and Black child poverty with fixed-effect models that include dummy variables for year and state; coefficients for these dummies are not shown in the tables. The state dummies control for all unobserved factors that tend to make Black child poverty rates higher in some states than others. The year dummies control for the unobserved factors that affected national levels of child poverty over time. Thus the models can isolate the extent to which changes in child poverty over time within states is associated with changes in a state's Black male imprisonment rate adjusting for unmeasured state and year characteristics.

Results

Descriptive Statistics

Table 1 shows descriptive statistics for the combined CPS and imprisonment data.

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conservative effect on attributions of a relationship between Black male imprisonment and Black child poverty.

State-level imprisonment. The average child in the sample resided in a state in which 3.4 percent of Black adult males were in prison; this average rose steadily from 2.08 to 4.96 between 1983 and 1998. In 1983, the range of state Black male imprisonment rates in the sample was 1.28 to 3.65; in 1998 this range was 2.96 to 8.80.

Child variables. The analysis sample contains Black children ranging from 0 to 17 years old with an average age of eight years old. A substantial number of children in the sample – 34 percent – are under the age of six. Both boys and girls are included in the sample with near equal numbers of each. Nearly half of the children in the sample, or 46 percent, live in families with incomes below the poverty line.[4] This mean generally declined from 52% in 1983 to 37% in 1998. The proportion of Black children living in poverty in our sample is slightly higher, but consistent with estimates from the Federal Interagency Forum on Child and Family Statistics; however, since our sample does not include all states and excludes children not living with their mothers, direct comparisons should be made with caution.

Research consistently shows that educational attainment is closely linked to income and poverty status. A substantial percentage of children in the sample, 24 percent, live in households in which no adult female graduated from high school, and 67 percent of children in the sample live in households where females hold no more than a high school degree. While a substantial proportion of children live in households where an adult female has had some post-secondary education, only 9 percent of children live in a household in which an adult female has completed 4 years of college.

It is important to control for family size and structure in explaining child poverty. The poverty threshold (the income level below which people are considered to be in poverty)

[4] We use the poverty status of a child's family as determined by the CPS.

is higher for larger families, recognizing that it costs more to provide the minimum essentials to more people. In general, the likelihood of a child being in poverty increases with the number of children in a family, while the impact of adults on child poverty depends on whether they contribute enough income to the household to offset the increased costs of maintaining them. The average child in the sample lives with 1.64 other children and lives with a total of 1.9 adults in the household. Forty percent of the children are living with both their parents. Eighty percent of the sample children live in metropolitan areas. Imprisonment rates for states with high metropolitan residence are typically higher than more rural states, while Black poverty rates are lower in metropolitan than rural areas.

Effects of Imprisonment on Child Poverty

We begin by assessing the effect of each independent variable on child poverty and household income separately. Table 2 shows the bivariate effect of each independent variable, and the effect of that variable with the state and year dummies included, but no other independent variables. Consistent with evidence from time trends (Figure 1) but inconsistent with our hypothesis that higher Black male imprisonment will be associated with higher rates of Black child poverty, zero-order estimates show an inverse relationship between Black child poverty and Black male imprisonment. However, this relationship reverses with the state and year dummies in the model. The odds of a Black child living in poverty increase by five percent with every percentage point increase in Black male imprisonment in the child's state of residence; this effect does not reach the conventional .05 level of two-tailed significance, but is significant at the .1 level (equivalent to the .05 level one-tailed).

The other independent variables behave as expected and are not substantially affected by the inclusion of the state and year dummies. There is a strong negative relationship between the highest level of female education found in the child's household and child poverty. Compared to households where the most highly-educated woman has a high school degree, children in households where no woman has a high school degree are over 300 percent more likely to be living in poverty, while children's odds of poverty are 50 percent lower in households with women who have some college education and 88 percent lower if a woman has a college degree.

Bivariate regression also shows that family and household structure/size play significant roles in predicting child poverty. For every sibling a child has, that child's odds of living in poverty increase by about 50 percent. This finding confirms that it is necessary to control for family size when predicting child poverty. Also the number of adults, who may (but not necessarily) be contributing to the child's household income, has the expected significant affect of reducing child poverty. Children who are living with both parents are almost 90 percent less likely to be poor than those living with only their mothers. On average, each man in the household reduces the child's poverty odds by 70 percent, while each woman in the household increases the child's poverty odds by 6 percent.

Metropolitan residence reduces the odds of child poverty by about 30 percent, suggesting that children living in rural areas are more likely to experience poverty.

Though we will later explore the effects of imprisonment on household income, this table also shows the regression coefficients for the effect of independent variables on the unlogged household income. Controlling only for state and year effects,

imprisonment rates had no overall effect on household income. The effects of other independent variables are as expected.

Table 3 shows the logistic regression of Black child poverty on Black male imprisonment rates and household structure with and without permitting the interaction of imprisonment rates with women's education. The effects of control variables are as expected and similar to the bivariate relations. The woman's education has the single largest effect on the odds that a child is in poverty. Metropolitan children are less likely to be poor than those in rural areas or small towns. Families with more children are more likely to be in poverty. Children living with both parents are much less likely to be poor, and there is an additional effect of the number of men in the household on reducing poverty.

Turning to the effect of imprisonment, the table shows that there is a significant increase in the odds of Black child poverty due to Black male imprisonment. With no controls for adults in the household or interaction effects, there is a 5% increase in the poverty odds for each percentage point increase in the imprisonment rate. When controls are introduced for the presence of both parents and the total number of men and women in the household (in addition to parents), the imprisonment effect goes up to almost 6%, indicating that there are effects in addition to simply altering the household composition. Adding terms for the interaction of imprisonment with the woman's education both increases the main effect and further specifies the impact of imprisonment on child poverty. The BIC statistics indicate that including variables for household composition and the interaction effects improves the fit of the model after adjusting for the loss of

degrees of freedom and sample size (Raftery 1995).[5] Each percentage point increase in Black male imprisonment increases the odds of Black child poverty by about 12% if the woman is not a high school graduate and about 7% if she is, while the effects if the woman has been to college are negligible. As the range of maximum to minimum imprisonment rates was about six percentage points by the end of the 1990s, shifting from the minimum to the maximum imprisonment rate would increase the odds of Black child poverty by about 72% for if the woman is not a high school graduate, and about 42% if she has only a high school degree.

Family Composition and the Effect of Incarceration

Having established that there is a relationship, we conduct more specific investigations to understand the underlying mechanisms. Table 4 shows the logistic regression of Black child poverty on Black male imprisonment separately for children who live with only their mothers and children who live with both parents. The main effect of imprisonment rates on the poverty of mother-only families is comparable to the whole sample (although only marginally significant with the reduced sample size) and does not strongly interact with education: there is an 8 percent increase in the odds of the child's poverty for each percentage point increase in the Black incarceration rate if the woman has only a high school education, and an even smaller 5 percent increase if the

[5] The Bayesian Information Criterion (BIC) (Raftery, 1995) allows a researcher to compare nested or non-nested statistical models estimated with maximum likelihood. With a very large sample size, such as the one here, enormous statistical power means that regular likelihood-ratio tests tend to be anti-conservative; even small departures from the null model tend to result in a rejection of the null hypothesis. The BIC statistic penalizes a model for employing parameters that do not substantially improve the likelihood, helping a researcher to select models that simultaneously fit the data well and are parsimonious. There are several different ways to calculate BIC. In this case, BIC has been calculated as -2*(Log-Likelihood) - df*ln(N). Models with the smaller (more negative) value of BIC are preferred to models with larger values. Raftery, Adrian. 1995. Bayesian model selection in social research. Sociological Methodology, 25: 111-163.

woman has not graduated from high school. However, the effects for children residing with both parents are striking: if the woman's education is less than high school, there is a 28 percent increase in the odds of Black child poverty for every percentage point increase in the Black male imprisonment rate, or as much as a 140 percent increase in moving from the lowest to the highest observed imprisonment rates. There are relatively few children (~4000) in this cell (woman not high school graduate, living with both parents) but the result is striking and consistent with the known effects of prison records on men's lifetime earning potential. For children residing within households where the highest level of female education is a high school degree, there is 7-8% increase in the odds of poverty for each percentage point increase in the Black male imprisonment rate for both mother-only and both-parent children.

Of course, children residing only with their mothers have higher overall rates of poverty than children residing with both parents. Table 5 investigates the effect of imprisonment rates on the odds that a Black child who is residing with the mother is also residing with the father. The overall effect of Black male imprisonment on reducing residence with both parents is not significant. However, there are substantial interaction effects. If the woman's education is less than high school, each percentage increase in Black male imprisonment reduces the odds that a Black child lives with his/her father by 10 percent, for a total effect across the range of imprisonment rates of 60 percent. If the woman is a high school graduate, the non-significant 3 percent reduction in odds translates into a maximum reduction by 18 percent in the odds the child lives with the father. By contrast, if the woman is a college graduate, each percentage point increase in imprisonment actually increases the odds that the child lives with the father by 7 percent!

These differential effects point to the importance of examining the differential effects of policies on different social strata.

Table 6 shows how these different effects play out for household income. As for the poverty models, tests indicate that the models including adults in household and interactions between imprisonment and woman's education have the best fit, so only these models are shown. Taking all children who live with their mothers, there is a significant negative effect of Black male imprisonment on household income that is concentrated where women have no more than high school education. Performing separate regressions for children who live only with their mothers and those who live with both parents specifies this result. For children who reside only with their mothers, the effects are negative but only approach significance when the woman has no more than a high school degree. But for children who reside with both parents where the woman is not a high school graduate, there is a strong and significant negative effect of Black male imprisonment on the household income. (Adding counts of men and women in the household to the model for children residing with both parents adds little to the model's explanatory power and reduces the magnitude of the coefficient on the interaction between imprisonment and low education, so this presentation is conservative.)

Overall, then, these data indicate that the effects of Black male imprisonment on child poverty are concentrated on children whose mothers are not high school graduates. These effects on such children run through two paths. First, Black imprisonment substantially reduces the likelihood that the child lives with both parents, and children who live only with their mothers are much more likely to be in poverty. Second, even if

the child lives with both parents, Black imprisonment reduces family income; lower income, in turn, increases poverty.

Sorting out Time Order

In the models we have presented, poverty and imprisonment are measured on the same years, so we cannot rule out the possibility that poverty and low income cause imprisonment rates more than the other way around. Although more research is needed to verify these effects, several factors support the idea that at least some of the causality runs from imprisonment to poverty. First, other work indicates that the "drug war," which is the primary source of escalating Black imprisonment rates, was negatively correlated with Black poverty and positively correlated with Black average income (Oliver and Yocom 2004). Second, in these data, in the 1980s, within any given year, state Black imprisonment rates are generally negatively correlated with Black child poverty and positively correlated with Black household income. These correlations weakened and moved toward zero after 1990. This suggests that the positive effects of imprisonment on child poverty occurred over time. Third, the lagged effects of imprisonment are stronger than the immediate effects. Considering only the years 1991-8, and looking only at the overall effect (ignoring interactions or the number of adults in the household), the effect of this year's imprisonment on poverty is actually non-significantly negative (.96); the effect of last year's imprisonment turns slightly positive (1.2), while the effect of the Black male imprisonment rate from two years ago becomes a significant 1.14.[6] (See Table 7)

[6] Obviously this result suggests that we should use longer lags in our whole analysis. As this requires backing up and re-creating the whole data set, we are not able to do this for this draft.

Discussion and Conclusion

Although more research is needed, there is certainly prima facie evidence for harmful effects of Black imprisonment rates on Black child poverty. This is logically what ought to be expected. Massive imprisonment of Black men pulls men out of their children's households and then sends them back to their communities with lower earning capacity. Why has it taken so long for this to be recognized? Several competing trends have been obscuring the patterns. Declining Black fertility and the economic boom of the 1990s produced overall declines in Black child poverty so no alarms were sounded, and no one asked whether Black child poverty was declining as rapidly as it ought to be. Another factor was that most observers assumed that massive incarceration was basically responding to crime that, in turn, was caused by poverty. Although criminologists had long established that the imprisonment boom was driven by drug sentences, not ordinary crime, there was little or no recognition that Black imprisonment rates were higher and rising faster where Blacks were comparatively well off. Finally, the fact that the harmful consequences of imprisonment take time to work meant that the patterns would not show up in ordinary cross-sectional analyses.

Now that we know the basic effect is there, more work is needed to pin down the ways in which imprisonment rates impact children, families, and communities.

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Table 1. Descriptive Statistics: Weighted means and standard deviations of relevant variables in combined CPS (1983-1998) and CPUS (1982-1997) data[7]

Variable	n	Mean	Standard Deviation
Percent of black males in prison in child's state of residence	61,259	3.491	1.365
Age	61,259	8.293	5.170
Male	61,259	0.494	-
Child lives below poverty line	61,259	0.456	-
Highest female educational attainment in household:			
Less than High School	61,259	0.233	-
High School	61,259	0.431	-
Some College	61,259	0.247	-
College	61,259	0.093	-
Number of children in family	61,259	2.630	1.393
Both parents in household	61,259	0.406	-
Number of adult males in household	61,259	0.636	0.669
Number of adult females in household	61,259	1.281	0.605
Metropolitan Residence	61,259	0.821	-
Total Household Income (in 1000s)	61,259	24.260	26.131

[7] All data from year 1987 (or 1986 for imprisonment data) is omitted because the March 1987 CPS does not contain a variable for "metropolitan residence."

Table 2. Separate effect of each independent variable on child poverty and household income, with and without control for state and year dummies.

Covariates	Logistic Regression		OLS Regression	
	Simple Bivariate	State & Year Controlled	Simple Bivariate	State & Year Controlled
	Child Poverty	Child Poverty	Household Income	Household Income
Black male imprisonment (state percentage)	0.929 (0.009)**	1.05 (0.029)+	2,798.61 (138.283)**	129.112 (388.427)
HH female education (High School omitted)				
Less than High School	3.402 (0.129)**	3.369 (0.129)**	-8,629.08 (241.256)**	-7,956.73 (245.241)**
Some college	0.456 (0.016)**	0.447 (0.016)**	9,128.33 (353.869)**	7,946.42 (349.143)**
College	0.112 (0.008)**	0.114 (0.009)**	30,062.83 (984.023)**	28,597.23 (921.893)**
Number of family members < 18	1.518 (0.020)**	1.501 (0.020)**	-2,569.51 (103.556)**	-2,214.62 (106.722)**
Both parents in HH (vs. Mother-only)	0.113 (0.004)**	0.102 (0.004)**	20,789.92 (326.915)**	21,409.41 (315.566)**
Number of men in HH	0.298 (0.010)**	0.288 (0.009)**	14,273.77 (246.939)**	14,766.06 (238.767)**
Number of Women in HH	1.07 (0.025)**	1.063 (0.025)**	3,904.96 (277.097)**	4,309.65 (256.695)**
Metropolitan Residence	0.708 (0.024)**	0.737 (0.031)**	6,030.78 (322.003)**	3,045.02 (367.393)**
Constant	- -	- -	13,839.21 (424.999)**	17,275.50 (939.027)**
Observations	61259	61259	61259	61259

Robust standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 3. Logistic Regression of Black Child Poverty on Black Male Imprisonment and Controls.

Covariates	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Child Poverty	Child Poverty	Child Poverty	Child Poverty	Child Poverty	Child Poverty
Black male imprisonment (state percentage)	1.050 (0.031)+	1.055 (0.035)	1.057 (0.035)+	1.065 (0.034)*	1.072 (0.038)*	1.073 (0.038)*
HH female education (High School omitted)						
Less than High School	2.989 (0.116)**	2.847 (0.125)**	2.873 (0.127)**	2.429 (0.248)**	2.441 (0.277)**	2.474 (0.283)**
Some college	0.470 (0.017)**	0.492 (0.020)**	0.487 (0.020)**	0.567 (0.056)**	0.606 (0.066)**	0.596 (0.066)**
College	0.126 (0.010)**	0.173 (0.014)**	0.171 (0.014)**	0.186 (0.040)**	0.209 (0.048)**	0.205 (0.048)**
Number of family members < 18	1.375 (0.018)**	1.619 (0.025)**	1.605 (0.025)**	1.374 (0.018)**	1.619 (0.025)**	1.605 (0.025)**
Both parents in HH (vs. Mother-only)	- -	0.081 (0.003)**	0.102 (0.005)**	- -	0.081 (0.003)**	0.103 (0.005)**
Number of men in HH	- -	- -	0.743 (0.023)**	- -	- -	0.744 (0.023)**
Number of Women in HH	- -	- -	0.955 (0.028)	- -	- -	0.954 (0.028)
Metropolitan Residence	0.905 (0.041)*	0.774 (0.039)**	0.76 (0.039)**	0.901 (0.041)*	0.772 (0.039)**	0.757 (0.038)**
Interaction Terms (Imprisonment x Education)						
Imprisonment x LTHS	- -	- -	- -	1.066 (0.031)*	1.049 (0.034)	1.047 (0.034)
Imprisonment x Some College	- -	- -	- -	0.949 (0.025)*	0.943 (0.027)*	0.945 (0.027)+
Imprisonment x College	- -	- -	- -	0.895 (0.054)+	0.946 (0.059)	0.948 (0.06)
Observations	61259	61259	61259	61259	61259	61259
Log likelihood	-35327.319	-28518.712	-28373.421	-35305.02	-28506.39	-28361.979
Degrees of Freedom	47	48	50	50	51	53
BIC	70136.5633	56508.326	56195.699	70058.897	56450.614	56139.746
Net Effects of Imprisonment Rate						
Less than High School	-	-	-	1.135	1.125	1.123
High School	-	-	-	1.065	1.072	1.073
Some college	-	-	-	1.011	1.011	1.014
College	-	-	-	0.953	1.014	1.017

Robust standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 4. Regression of Black Child Poverty on Black Male Imprisonment and Control Variables, Separately for Mother-only and Two-parent families.

	Mother-Only Household				Both Parents			
Covariates	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**
	Child Poverty	Child Poverty	Child Poverty	Child Poverty	Child Poverty	Child Poverty	Child Poverty	Child Poverty
Black male imprisonment (state percentage)	1.053 (0.040)	1.078 (0.044)+	1.056 (0.04)+	1.08 (0.044)+	1.083 (0.073)	1.079 (0.081)	1.083 (0.073)	1.079 (0.08)1
HH female education (High School omitted)								
Less than High School	3.002 (0.158)**	3.318 (0.459)**	3.021 (0.160)**	3.334 (0.467)**	2.642 (0.207)**	1.57 (0.324)*	2.672 (0.211)**	1.603 (0.332)*
Some college	0.497 (0.023)**	0.611 (0.075)**	0.491 (0.023)**	0.598 (0.074)**	0.481 (0.043)**	0.594 (0.143)*	0.478 (0.043)**	0.589 (0.141)*
College	0.171 (0.016)**	0.205 (0.052)**	0.168 (0.016)**	0.198 (0.051)**	0.173 (0.030)**	0.215 (0.106)**	0.172 (0.030)**	0.215 (0.107)**
Number of family members < 18	1.68 (0.033)**	1.679 (0.033)**	1.649 (0.032)**	1.649 (0.032)**	1.558 (0.039)**	1.557 (0.039)**	1.555 (0.039)**	1.555 (0.039)**
Number of men in HH	- -	- -	0.714 (0.024)**	0.714 (0.024)**	- -	- -	0.891 (0.064)	0.900 (0.064)
Number of Women in HH	- -	- -	0.943 (0.031)+	0.944 (0.031)+	- -	- -	1.042 (0.075)	1.030 (0.074)
Metropolitan Residence	0.802 (0.049)**	0.801 (0.049)**	0.782 (0.048)**	0.781 (0.048)**	0.705 (0.060)**	0.702 (0.059)**	0.702 (0.060)**	0.699 (0.059)**
Interaction Terms (Imprisonment x Educ)								
Imprisonment x LTHS	- -	0.972 (0.035)	- -	0.973 (0.036)	- -	1.189 (0.074)**	- -	1.184 (0.074)**
Imprisonment x Some College	- -	0.945 (0.03)+	- -	0.948 (0.03)+	- -	0.942 (0.065)	- -	0.942 (0.065)
Imprisonment x College	- -	0.95 (0.065)	- -	0.954 (0.066)	- -	0.941 (0.128)	- -	0.939 (0.128)
Observations	36553	36553	36553	36553	24706	24706	24706	24706
Log likelihood	-19011.726	-19007.727	-18858.625	-18855.068	-9352.8543	-9335.0512	-9349.0895	-9332.0084
Degrees of Freedom	47	50	49	52	47	50	49	52
BIC	37529.646	37490.128	37202.431	37163.797	18230.313	18164.362	18202.554	18138.047
Net Effects of Imprisonment Rate								
Less than High School	-	1.047816	-	1.05084	-	1.282931	-	1.277536
High School	-	1.078	-	1.08	-	1.079	-	1.079
Some college	-	1.01871	-	1.02384	-	1.016418	-	1.016418
College	-	1.0241	-	1.03032	-	1.015339	-	1.013181

Robust standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 5. Logistic Regression of Living with Both Parents on Black Male Imprisonment and Covariates.

Covariates	Model 1	Model 2
	Both Parents	Both Parents
Black male imprisonment (state percentage)	0.983 (0.027)	0.974 (0.03)
HH female education (High School omitted)		
Less than High School	0.528 (0.021)**	0.665 (0.071)**
Some college	1.503 (0.051)**	1.469 (0.132)**
College	3.462 (0.160)**	2.452 (0.296)**
Number of family members < 18	1.117 (0.014)**	1.117 (0.014)**
Metropolitan Residence	0.826 (0.035)**	0.831 (0.036)**
Interaction Terms (Imprisonment x Educ)		
Imprisonment x LTHS	- -	0.929 (0.030)*
Imprisonment x Some College	- -	1.006 (0.024)
Imprisonment x College	- -	1.098 (0.034)**
Observations	61259	61259
Log likelihood	-38962.46	-38938.808
Degrees of Freedom	47	50
BIC	77406.845	77326.473
Net Effects of Imprisonment Rate		
Less than High School	-	0.904846
High School	-	0.974
Some college	-	0.979844
College	-	1.069452

Robust standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

Table 6. Regression of Log of Household Income, for all cases and separately for Mother-Only and Both Parent Families.

Covariates	All Cases	Mother-only	Both Parents
	Log Income	Log Income	Log Income
Black male imprisonment (state percentage)	-0.023 (0.011)*	-0.021 (0.015)	-0.012 (0.015)
HH female education (High School omitted)			
Less than High School	-0.321 (0.034)**	-0.333 (0.042)**	-0.218 (0.057)**
Some college	0.19 (0.031)**	0.202 (0.043)**	0.196 (0.043)**
College	0.637 (0.043)**	0.77 (0.072)**	0.571 (0.053)**
Number of family members < 18	-0.039 (0.004)**	-0.029 (0.005)**	-0.047 (0.006)**
Both parents in HH (vs. Mother-only)	0.64 (0.013)**	- -	- -
Number of men in HH	0.386 (0.010)**	0.46 (0.012)**	0.179 (0.014)**
Number of Women in HH	0.256 (0.009)**	0.298 (0.011)**	0.11 (0.013)**
Metropolitan Residence	0.094 (0.014)**	0.068 (0.020)**	0.129 (0.019)**
Interaction Terms (Imprisonment x Educ)			
Imprisonment x LTHS	-0.011 (0.010)	-0.002 (0.012)	-0.048 (0.017)**
Imprisonment x Some College	0.023 (0.008)**	0.026 (0.011)*	0.011 (0.012)
Imprisonment x College	0.013 (0.012)	0.013 (0.019)	0.003 (0.014)
Constant	8.565 (0.038)**	8.519 (0.052)**	9.548 (0.055)**
Observations	60717	36090	24627
R^2	0.49	0.35	0.31
Degrees of Freedom	53	52	43
Net Effects of Imprisonment Rate			
Less than High School	-0.034	-0.023	-0.060
High School	-0.023	-0.021	-0.012
Some college	0	0.005	-0.001
College	-0.01	-0.008	-0.009

Robust standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%

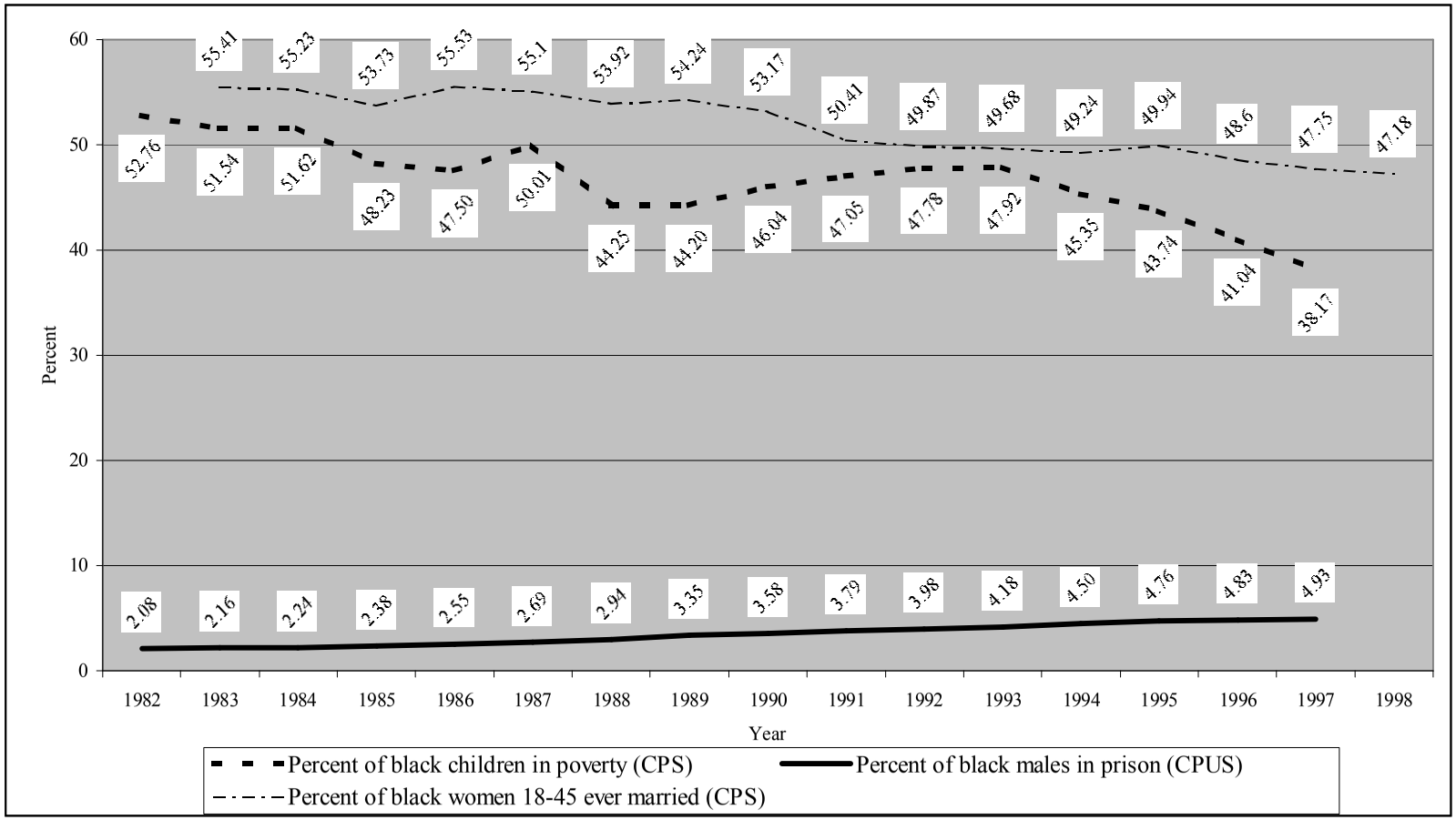
Table 7. Logistic Regression of Black Child Poverty on Black Male Imprisonment Lagged 0, 1 or 2 Years (1991-1998 only)

Covariates	Model 1	Model 2	Model 3
	Child Poverty	Child Poverty	Child Poverty
Black male imprisonment	0.958	-	-
No Lag	(0.053)	-	-
Black male imprisonment	-	1.024	-
1 year lag	-	(0.06)	-
Black male imprisonment	-	-	1.141
2 year lag	-	-	(0.074)*
HH female education (High School omitted)			
Less than High School	3.241	3.242	3.244
	(0.192)**	(0.192)**	(0.192)**
Some college	0.44	0.44	0.439
	(0.022)**	(0.022)**	(0.022)**
College	0.111	0.111	0.111
	(0.013)**	(0.013)**	(0.012)**
Number of family members < 18	1.471	1.471	1.471
	(0.028)**	(0.028)**	(0.028)**
Metropolitan residence	0.93	0.93	0.932
	(0.065)	(0.066)	(0.066)
Observations	30569	30569	30569

Robust standard errors in parentheses

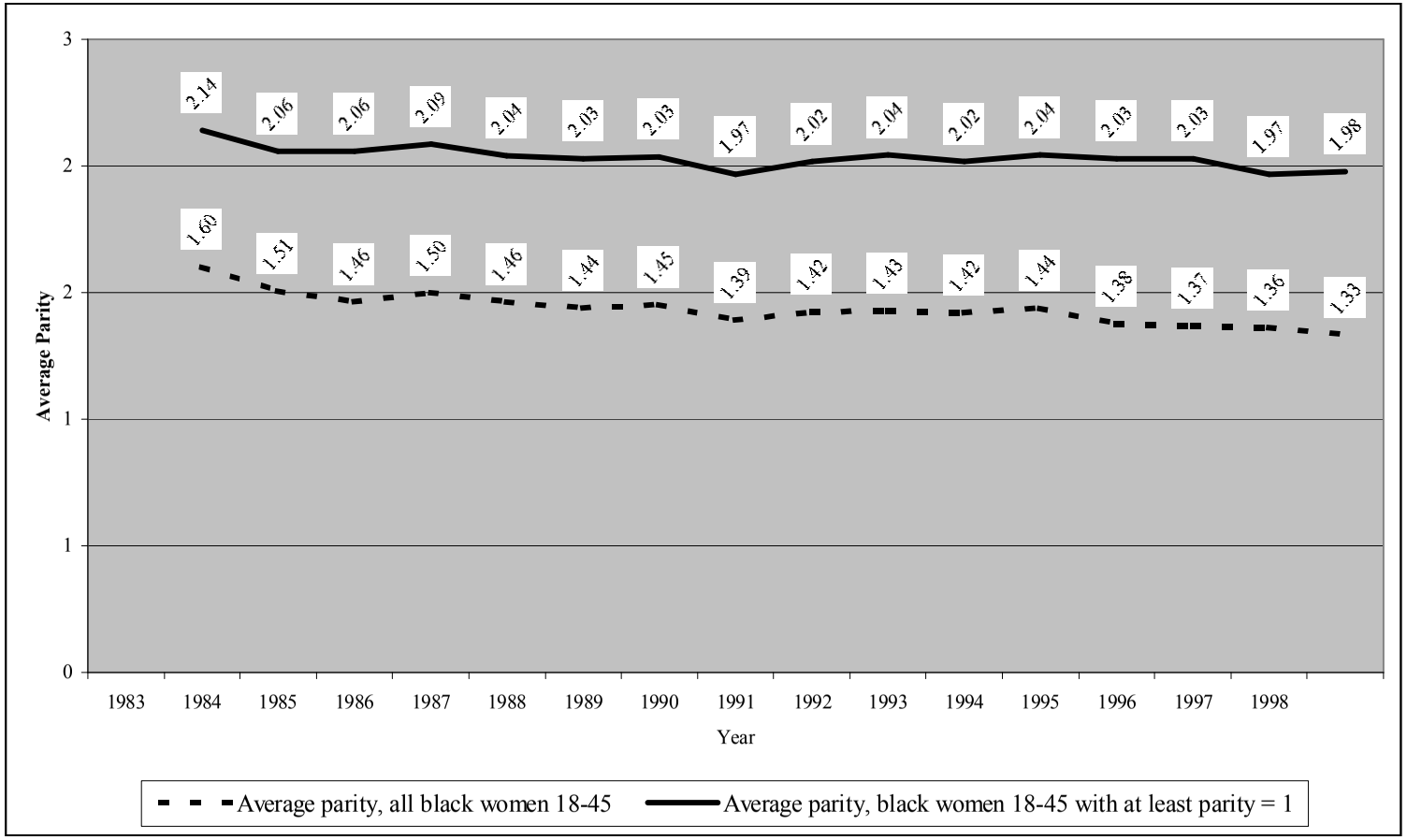
+ significant at 10%; * significant at 5%; ** significant at 1%

Figure 1. Time trends in Black male imprisonment (CPUS 1982-1997), Black marriage among females 18-45, and Black child poverty (CPS 1983-1998)[8]



[8] Time trends only include 37 states plus the District of Columbia

Figure 2. Time trends in average parity for all Black women ages 18-45 and average parity for Black women ages 18-45 who have at least one child, (CPS 1983-1998, weighted)[9]



[9] Time trends only include 37 states plus the District of Columbia