

## COMMENTARY

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# ASSESSING THE EFFECTS OF MASS INCARCERATION ON INFORMAL SOCIAL CONTROL IN COMMUNITIES

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### **Research Summary:**

*This paper reviews and evaluates the existing (and limited) evidence that increases in incarceration have affected the ability of residential neighborhoods to perform their traditional social control functions. It suggests that, although comparatively weak, the evidence points to the increases in the level and clustering in social and geographic space of incarceration as contributing to changes in the social organization of affected communities by weakening family formation, labor force attachments, and patterns of social interaction among residents. At the same time, however, the paper does find support for the contention that incarceration leads to reductions in crime in affected communities.*

### **Policy Implications:**

*To the extent that mass incarceration disrupts patterns of social interaction, weakens community social organization, and decreases the stigma of imprisonment, its longer-run effects may be to reduce its effectiveness.*

**KEYWORDS:** Mass Incarceration, Informal Social Control, Community, Family Formation, Unintended Consequences.

Over the past 20 years, the United States has experienced a massive increase in imprisonment (Gilliard and Beck, 1996; Lynch and Sabol, 1997). It is generally understood that the increase was not driven primarily by underlying changes in criminal behavior (Blumstein and Beck, 1999), but by a shift in policy and specifically by increases in the use of prison for drug crimes and for habitual offenders (Western et al., 2001). It is not completely clear what the effects of this policy have been or will be.

Evaluations of incarceration generally assess its effects in terms of the recidivism of individual offenders or the reductions in aggregate crime

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\* The opinions expressed in this article are solely those of the authors and do not reflect those of the U.S. General Accounting Office.

rates (Blumstein et al., 1978; Cohen and Canela-Cacho, 1994; Levitt, 1996; Nagin, 1998). And, recent assessments of the effects of incarceration on crime suggest that, although aggregate crime rates decline in response to expanding prison capacity and continued expansion of capacity is likely to result in further reductions in crime, not enough is known about the magnitude of the relationship to determine whether the reduction is large enough to warrant continued expansion of prison capacity (Spelman, 2000).

More recently, questions have been raised as to whether this large increase in incarceration has had unintended and undesirable consequences for persons, families, and communities. Specifically, research suggests that incarcerating individuals can have negative consequences for their future labor force participation and their future earnings. Moreover, the number of people incarcerated and the clustering of that incarceration in inner-city black populations raises the prospect that incarceration may be undermining less coercive institutions of social control such as families and communities (Clear, 1996; Lynch and Sabol, 1992; Moore, 1996; Nightingale and Watts, 1996; Rose and Clear, 1998a). To the extent that these less coercive institutions of social control are the first line of defense against crime, then disrupting them may mean that the long-run consequences of the massive increases in incarceration of the past 15 years will be increased crime (Rose and Clear, 1998a).

Allegations that incarceration undermines less coercive institutions of social control have been largely speculative, but there is a growing body of empirical research that informs this issue. The purpose of this paper is to review and evaluate the existing evidence that recent increases in incarceration have affected the ability of residential neighborhoods to perform their traditional social control functions. We also suggest research that should be done to test this contention further.

The first of the following sections reviews the evidence that the level of incarceration has increased and that this increase has been clustered in social and geographic space. Establishing these facts is crucial for the argument that incarceration can plausibly affect residential neighborhoods. Unless incarceration is prevalent or highly clustered in residential neighborhoods, then it is unlikely to affect residential communities in any substantial way. The second section presents the theories that have been used to explain how incarceration can affect the ability of neighborhoods to contribute to social control. The third section reviews and evaluates the evidence that increases in incarceration have had detrimental (or beneficial) effects on communities. The fourth and final section outlines the research required to better assess the impact of incarceration on the role of neighborhoods in social control.

The small but growing body of evidence on the effects of incarceration

on communities suggests that incarceration may have some unintended negative effects on the residential communities from which offenders are taken. This conclusion is tentative because there are a number of conceptual and methodological questions that are yet to be resolved.

## TRENDS IN THE LEVEL AND DISTRIBUTION OF INCARCERATION

The use of incarceration has increased massively over the last 15 years both in terms of the number of persons in prison on a given day and in terms of the cumulative number of persons experiencing incarceration over that period. This expansion of incarceration into society has not been randomly distributed in social and geographic space. It has been greatest for young black males first in central cities and more recently in smaller urban areas (Lynch and Sabol, 1997). The level of incarceration for these groups has approached 10% on a given day and 33% in their lifetime (Bonzcar, 2003; Lynch and Sabol, 1992). Data from the Fragile Families Survey also support the prevalence estimates obtained by Bonzcar and Beck (Western and McClanahan, 2000). And Western and Pettit (2000) estimate that a majority of black high-school dropouts are likely to be imprisoned at some time during their lives. These trends suggest that it is plausible these changes in the use of incarceration have made imprisonment so prevalent in some groups that it can disrupt the residential communities in which they live.

More direct evidence of the distribution of incarceration rates across residential neighborhoods confirms that incarceration is highly clustered in a small number of areas. Research by Clear et al. (2003) documents the concentrations of released offenders within a few Tallahassee, Florida neighborhoods. Recent data from Ohio also highlights the extreme concentrations of offenders within neighborhoods. Lynch and Sabol (2001b) report on the one-day incarceration rates for Cleveland and Cuyahoga County. Of all persons in Ohio's prisons on July 1, 2000, 20% were sentenced in Cuyahoga County (about 10,000 offenders). Fifty of the county's 1,539 census block groups (3% of the block groups) accounted for about 20% of the County's prisoners. Forty-eight of these block groups were within the City of Cleveland. Within these 50 block groups, the one-day incarceration rates—the number of persons in prison divided by the resident population in the block group—exceeded 0.75% of the resident population,<sup>1</sup> and the estimated one-day incarceration rate averaged about

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1. The calculations were based on the number of offenders whose block group information was available. For about 40% of the sample of prisoners who were convicted in Cuyahoga County courts, the block group of residence was missing. Hence, the

1.5% of the population. For black men between the ages of 18 and 29, the estimated one-day incarceration rate was between 8% and 15%.

Lynch and Sabol (2004, in press) found similar clustering in Baltimore City. Using data on admissions to the Maryland Department of Corrections between 1987 and 1992, they estimated that median neighborhood incarceration rates—where neighborhoods were aggregations of census tracts and the incarceration rate was measured in terms of annual per capita volume of prison admissions—for men 18 to 34 years of age was 2.7% with the lowest rate at zero and the highest rate at 22 percent. Five percent of the neighborhoods accounted for 25% of the admissions from Baltimore in that year. Ten% of the neighborhoods accounted for about 40% of admission, and 25% of neighborhoods accounted for 65% of admissions.

These data confirm the contention that incarceration is so prevalent in some residential communities that it could very plausibly affect the social organization of these areas. Removing a large proportion of young men through incarceration, rather than involving these men in other institutional arrangements in the community such as family formation, may affect communities. Exactly how this might occur is described in the following section.

## THEORIES OF THE EFFECTS OF INCARCERATION ON THE SOCIAL CONTROL FUNCTIONS OF RESIDENTIAL NEIGHBORHOODS

Theories explaining the effects of incarceration on community posit both positive and negative effects. Some assume a very direct effect of incarceration on social control, whereas others assume that detrimental effects of incarceration occur through the negative impact on institutions such as family.

### MODELS OF POSITIVE EFFECTS

Traditionally the principal assumed benefit of incarceration has been crime reduction through incapacitation or deterrence. Until very recently, this has been reason enough to warrant imprisonment. Beneficial effects of imprisonment were believed to occur because of increases in the certainty and severity of punishment or because the offender was simply removed from society (Marvel and Moody 1994, 1998). Nagin (1998), however, although acknowledging the evidence in support of deterrence, generally cautions against overgeneralizing its applicability. He asserts

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calculations of one-day incarceration rates will generally underestimate the actual one-day rates.

that the deterrent effect of incarceration may depend on the social context in which it is applied and specifically the stigmatization that imprisonment brings to the offender in his family and community. In the absence of this stigmatization, deterrence will not occur (Zimring and Hawkins, 1973). Nagin's argument is not that imprisonment will bolster less coercive institutions of social control, but that without these, imprisonment may not deter crime. Attachments to the labor force, families, communities, and other groups make inmates vulnerable to additional informal sanctions from these groups as a result of incarceration. Without these attachments, this additional sanctioning cannot occur because there are no groups that the offender cares about who can show their disapprobation. Nagin goes on to argue that if the use of incarceration becomes so prevalent that it is no longer an aberration, then these groups will not sanction incarcerated members and incarceration will lose its stigma. The inference to be drawn from Nagin's argument is that individuals must be attached to legitimate groups and incarceration must not be overly prevalent if this stigmatization is going to occur. The novelty of Nagin's argument is the linkage of imprisonment to less coercive institutions of social control rather than having it stand alone as an instrument of crime reduction.

Braman's (2002) ethnographic work with families of incarcerated men in Washington, D.C. describes how the stigma of incarceration felt by the immediate family members of the incarcerated offender can weaken extended family ties. He suggests that immediate family members feel the stigma of incarceration and because of that they lie or do not talk about the incarceration of their loved one. One effect of this is that the immediate family members of the incarcerated person can cut themselves off from extended family networks that could provide resources. In addition, and consistent with Nagin's argument, the decisions of immediate family members to diminish their ties with extended families cut off incarcerated offenders from social networks of approbation.

Although there has been extensive work linking the social organization of communities to crime (Taylor 2001, 1999, 1986; Taylor et al., 1984; Sampson et al. 1997), there is virtually no theory or empirical work that associates imprisonment directly with building or supporting less coercive institutions of social control. Most of the beneficial effects of incarceration are expected to occur through crime reduction. So, removing an abusing spouse from the home will improve the functioning of a family or simply presenting the realistic threat of imprisonment for assaulting other family members may be sufficient to stop the behavior and thereby help the family (Sherman, 1992). The improved functioning of the family should provide for socialization and supervision of children and thereby

lower crime rates. Similarly, actually removing criminals from communities or plausibly threatening incarceration can reduce crime rates in neighborhoods or the fear of crime. This, in turn, would permit the interaction among neighbors that provides the informal controls that promote community organization and reduces neighborhood crime.

### MODELS OF NEGATIVE EFFECTS

There are various routes and processes by which incarceration can adversely affect communities. Darity and Myers (1989, 1994), Myers (2000), Lynch and Sabol (1992), and Sabol and Lynch (2003) speculated that incarceration would reduce the marriageability of men and thereby reduce marriage formation. This, in turn, would increase the number of female-headed households in areas with high incarceration and ultimately crime rates because of the absence of supervision for young males in these areas (Sampson, 1987). They speculated that the marriageability of men would be reduced by (1) their removal through incarceration and (2) the "taint" incarceration has in the job market. Increased crime rates and the fear of victimization would also reduce the amount of interaction between community residents and their attachments to the community. All of this would reduce the ability, and willingness of residents to engage in informal social control.

Rose and Clear (1998a) describe a much more elaborate set of processes through which incarceration affects less coercive institutions of social control. They expanded Bursik and Grasmick's (1993) General Systems Model (GSM) to take account of the effects of incarceration. In the GSM, community disorganization leads to crime principally through the exogenous variables heterogeneity, mobility and socioeconomic status. These variables can facilitate or inhibit interaction in communities that allow residents of that community to set and achieve collective goals. They can enhance private control that takes place in intimate groups as well as "parochial" control that takes place outside of intimate groups but in the residential area. Parochial control would include control in the context of neighboring and in voluntary associations. Heterogeneity, mobility, and socioeconomic status can also affect the amount of public control that occurs in a community by influencing a community's ability to negotiate service with municipal bureaucracies, including the criminal justice system. Bursik and Grasmick's model has the level of private, parochial, and public control in a community determining the crime rate. Communities that are stable and homogeneous will have high levels of private and parochial control as well as optimum levels of public control with the result that levels of crime are low relative to other areas.

Rose and Clear (1998a) elaborate this basic model by describing how incarceration will introduce "coercive" mobility into communities and

thereby undermine key institutional arrangements that bolster private, parochial, and public control in these communities. Specifically, Rose and Clear posit a feedback loop where the use of incarceration at time 1 results in greater mobility and heterogeneity at time 2. In addition, they describe the process by which incarceration affects families, economic, and social systems on which parochial controls rest.

Incarceration can weaken families by removing men from existing families and by reducing the supply of marriageable men, which thereby reduces family formation. This will make families less effective as socializing agents and less able to supervise teenage children. Removal through incarceration can also affect economic institutions in communities by removing people who bring money to families and to the community. It can also reduce the earning power of family left behind because they must tend to tasks formerly performed by the incarcerated family member. In the long run, incarceration will have negative effects on the economic life of the community by reducing the ability of returning inmates to obtain jobs and higher salaries. Political institutions will be affected by removing people from networks that mobilize the community in response to external threats, e.g., a reduction in police service. There will be gaps in the network so that mobilization of the community will be incomplete. Moreover, removing persons from the area will allow those who take up their tasks less time to be involved in the mobilization process. So, for example, the partner of a prisoner may be able to hold down a job, but in order to do so, she will need to forgo involvement with her children's school. Rose and Clear also argue that massive increase in incarceration in communities (especially for drug crimes) encourages disillusionment with governmental and political structures that erodes feelings of empowerment and reduces participation in local political institutions.

Rose and Clear (1998a) also hypothesize that massive use of incarceration in communities will lessen the crime reduction potential of incarceration. When incarceration becomes prevalent in a community, it loses its "mystery" and thereby some of its deterring power. "Once experienced, prison is transformed from an awful mystery to a real life ordeal that has been suffered and survived."

Most of the foregoing processes linking incarceration to the social disorganization of communities begin with removal by coercive mobility. In Rose and Clear's model, incarceration also brings heterogeneity. This is not racial or ethnic heterogeneity, but differences in norms and values. Incarceration socializes inmates into the prison subculture, and upon their return, their stronger deviant orientation relative to their neighbor's

increases normative heterogeneity in the community.<sup>2</sup> This heterogeneity abets social disorganization.

## EMPIRICAL EVIDENCE ON THE IMPACT OF INCARCERATION ON THE SOCIAL CONTROL FUNCTIONS OF COMMUNITIES

### EVIDENCE FOR THE POSITIVE EFFECT OF INCARCERATION ON LESS COERCIVE INSTITUTIONS OF SOCIAL CONTROL

There is very little direct empirical evidence that incarceration builds residential communities or enhances the ability of these communities to perform their social control function. Incarceration, crime reduction, and changes in the social control functions of residential communities are seldom included in the same study. Rather, incarceration's effects on the social control functions of communities are assumed to operate through its crime-inhibiting effects (Dunworthy and Mills, 1999). Hence, if incarceration reduces crime, then it will, at a minimum, provide the basis for communities to organize and enhance informal social control. Although the negative association between imprisonment and crime has been the subject of extensive study (Blumstein et al., 1978; Levitt, 1996; Nagin, 1998), the beneficial effects of reductions in crime on the social control function of residential communities has been largely assumed.

The empirical evidence of the impact of incarceration on crime is that there is generally a negative effect of incarceration on crime (Nagin 1998), but that it is difficult to determine how much of the reduction can be attributed to incapacitation or general deterrence effects. Most studies of deterrence observe the change in incarceration and the change in crime over time or across spatial units. The problem is solving the issue of endogeneity, that is, determining the effects of punishment on crime independent of the effects of crime on punishment. The general approach to this problem is to employ instrumental variables techniques (see, e.g., Kmenta, 1986; Hanushek and Jackson, 1977), which require finding variables that are correlated with the independent variable, i.e., the prison population, but not with the dependent variable, i.e. the crime rate, and using the instrument to predict the effects of punishment on crime.

The early research on the deterrent effects of punishment suffered from weak instrumental variables (e.g., Blumstein et al., 1978). More recently, Levitt (1996) made clever use of court-ordered reductions in prison populations because of overcrowding to address the endogeneity problem. As

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2. Some would contend that the exchange between some communities and prison is so prevalent that the value systems in the two locations are virtually indistinguishable.



court-ordered reductions in prison populations are correlated with shorter sentences, but are implemented independently of changes in the crime rate, increases in crime in those states under court order cannot be because of the prior crime rate in these areas. Levitt found that states that did not shorten sentences to comply with court orders had lower crime rates than those that did. This supports the general idea that increases in punishment will result in decreases in crime. Levitt estimated that the negative impact on violent crime of adding one additional prisoner amounts to a reduction of slightly more than 2 violent crimes and 15 index crimes overall. Levitt did not separate the deterrent effects of incarceration from the incapacitation effects. And Nagin (1998) points out that Levitt's estimates of the crime reduction effects of incarceration are not much larger than the estimates obtained from several studies of the incapacitation effects of incarceration (e.g., Blumstein et al., 1993; Visher, 1986).

More generally, most of the empirical support for the negative relationship between incarceration and crime comes from studies of states or from nation-level analyses. It is not clear that incarceration will have the same effect at the neighborhood level, such that neighborhoods with high incarceration rates will have lower crime rates. These areas are so small that it is likely that incarceration in one area can very easily affect crime in adjacent areas (Marvel and Moody, 1994). This complicates the investigation of the effects of incarceration on crime at the neighborhood level. Moreover, the problem of endogeneity persists in any study that does not have the good fortune of having instrumental variables of the quality of those used by Levitt (1996).

Clear et al. (2003) provide a partial test of their model of coercive mobility by examining the effects of incarceration on crime using neighborhood-level data from Tallahassee, Florida. They found a positive relationship between prison releases in one year and a community's crime rate in the next year. They also find that high rates of prison admissions led to increases in crime, rather than the decreases that would be predicted by incapacitation and deterrence theories. However, Clear et al. did not instrument the crime-incarceration relationship; hence, it is difficult to draw inferences about the direction of causality. In other words, the high crime rates may have caused the high incarceration rates.

Using an instrumental variables approach, and using neighborhood-level data that were from Baltimore, Maryland, Lynch and Sabol (2004) found that prison admissions were negatively associated with crime rates in the 30 Baltimore neighborhoods in their sample. These findings are consistent with the direction of effects predicted by incapacitation and deterrence theories. Lynch and Sabol used the discretionary portion of drug arrests—that is, the drug arrest rate not explained by the index crime

rate—as their instrumental variable for prison admissions. This led to the negative relationship between incarceration and crime. When they estimated their incarceration-crime models without the instrumental variables, they found, as Clear et al. found, that incarceration was positively associated with crime.

The findings based on instrumental variables—that incarceration reduces crime—still assume that the effects of incarceration on the social control functions of communities occur through its crime-inhibiting effects. To test this assumption, Lynch and Sabol also examined the direct and indirect effects of incarceration on informal social control. They examined the effects of crime reduction on community organization and informal social control in the areas as well as the direct effects of incarceration on social control. They found, first, that changes in the crime rate in communities were not consistently associated with participation in informal social control. They found that increases in crime rates were associated with high levels of participation in certain aspects of community organization, specifically neighboring and community solidarity. The greater the increase in crime, the more intense the interaction among neighbors and the greater the positive feelings toward the neighborhood. At the same time, although they found that increases in incarceration were associated with increases in informal social control, they also found that incarceration decreased the positive feelings toward the neighborhood that encourage participation in informal social control.

Although tentative, the existing evidence about the effects of incarceration on the social organization of communities suggests that in the short run, incarceration reduces crime, but that reductions in crime are not directly associated with increases in informal social control. Additionally, although increases in incarceration are directly associated with increases in participation in informal social control, incarceration also diminishes community solidarity that is a principal determinant of informal social control. Although the direct evidence is thin, it suggests that incarceration has both positive and negative effects on the social control functions of communities.

#### EVIDENCE FOR THE NEGATIVE EFFECT OF INCARCERATION ON LESS COERCIVE INSTITUTIONS OF SOCIAL CONTROL

The evidence that imprisonment has negative effects on communities is incomplete, uneven, and in some cases, nonexistent. Where evidence exists, the quality can differ. For example, evidence differs with respect to whether it is direct or indirect. Direct evidence refers to the case where the relationship between imprisonment and a particular institution is

examined empirically, whereas indirect evidence refers to generalization from a similar event.

Evidence will also vary according to whether it is complete or partial. Complete evidence would include all the links in the causal chain, whereas partial evidence would include only some of these relationships.

Finally, empirical evidence differs with respect to its ability to take account of factors other than incarceration that may produce the negative consequences observed. This would include problems of simultaneous causality between imprisonment and the demise of less coercive institutions of social control. There are very few instances where existing evidence satisfies all of these conditions.

### INDIRECT AND PARTIAL EVIDENCE OF THE EFFECTS OF INCARCERATION ON COMMUNITIES

A number of studies have examined the effects of incarceration on the labor force attachments of incarcerated individuals, on family formation, and on the families of inmates. There is good reason to believe that these attachments support these institutions that, in turn, support the social organization of communities. Employed persons, for example, provide sustenance to families. Families supervise children and thereby keep the crime rates down. The activities that surround child rearing in general provide the intensity of interactions among residents that constitutes community organization. Although it is reasonable to assume this process, it is not the same as observing it completely.

### ECONOMIC INSTITUTIONS: LABOR FORCE PARTICIPATION, INCOME, AND COMMUNITY

There is a growing body of evidence at the individual level that imprisonment reduces an inmate's connection to the labor force. Yet, there is little empirical evidence that relates the individual-level effects of incarceration on employment to community social disorganization. Panel studies of cohorts of convicted persons and population cohorts have found negative effects of incarceration on income and attachment to the labor force, but some of this evidence is mixed. Using data from the National Longitudinal Survey of Youth (NLSY), Freeman (1996) found that being incarcerated had large negative effects on employment and income. Western and Beckett (1999) used NLSY data and estimated that juvenile incarceration is associated with a small but persistent decrease in weeks worked after 7 years. Western (2002) estimates that the earnings loss associated with imprisonment ranges from between 10% and 30% and that incarceration is also associated with decreased earnings growth.

Waldfoegel (1994) used data from probation officer reports on federal offenders to assess the effects of incarceration on wages and employment. He compared observations from the sentencing report prior to sentencing with post-sentencing observations from the probation reports. He found significant negative effects of incarceration on both employment and income. Nagin and Waldfoegel (1995) found in a cohort of British youth that convictions were negatively related to employment but had a positive effect on wages in the short term. They attributed the positive effect on income and the negative effect on employment to result from former inmates taking jobs in the "spot" labor markets where the initial salaries are high but the long-term potential is minimal. These spot labor markets are also characterized by considerable instability.

In a study that used unemployment insurance records from California, Grogger (1995) tracked the labor market outcomes of individuals serving jail terms of up to one year, and found that 18 months after the jail term began, employment rates declined by four percentage points from an overall sample mean of 54%. For a sample of federal offenders, Kling (1999) found that incarceration had little effect on employment, but he found that negative earnings effects were more pronounced among white-collar offenders than among federal drug or violent offenders.

Although these findings seem to support the contention that incarceration can negatively affect economic institutions in communities, it is still a leap to say that incarceration has had these effects. First, there are some inconsistencies in the findings that suggest that the negative effects of incarceration on income and labor force participation may be greatest for those groups with the lowest risk of incarceration, e.g., higher income offenders. Lott (1992) found that negative effects of incarceration on income were greatest for inmates with higher incomes prior to their incarceration. Waldfoegel (1994) found that negative effects on employment and income were greatest for white-collar offenses such as fraud, and Kling also found negative earnings effects among white-collar offenders. This would make it unlikely that incarceration would necessarily have the effect the negative influences on collectivities posited by Rose and Clear (1998a) and others. Second and more importantly, these studies were conducted with the individual as the unit of analysis, whereas the theories that connect incarceration with the disruption of less coercive institutions of social control assume families and communities as the unit of analysis. Whether and how the experiences of individuals affect the social organization of collectivities is an empirical issue. Although it makes sense that social disruption should be greatest in those places where individual disruption is greatest, this need not be the case. As Rose and Clear (1998a) point out, removing two persons from a community with very dense social networks will not be as disruptive of social organization as removing two

individuals from a community in which the networks are less dense. In sum, evidence from individual-level studies of the influence of incarceration on economic institutions cannot be used to test the effects of incarceration on the social organization of families and communities. Community and family-level analyses are required.

Sabol and Lynch (2003) examined the inter-relationship of incarceration and labor force participation at the county level. They used the National Corrections Reporting Program data collected by the Bureau of Justice Statistics to estimate admissions to prison rates and return rates for counties in 1983 and 1990. Census data in 1980 and 1990 were used to estimate labor force participation and demographic characteristics of the counties for 1983 and 1990. They estimated a pooled time-series regression model and a change model. The models predicted participation in the labor force for the county using releases from prison as well as economic and demographic variables. Separate models were estimated for blacks and for whites, with the suspicion that higher rates of incarceration for blacks were much more likely to affect county-level labor force participation than for whites. In the pooled time series model, release rates were positively related to unemployment and statistically significant for blacks and negatively related to unemployment and not statistically significant for whites. In the change models, release rates were positively related to changes in unemployment and significant for blacks and not for whites. These results are consistent with the argument that incarceration is affecting economic institutions in black communities and not in white areas.

Interpreting the results of these models is complicated by the fact that incarceration and crime can be reciprocally related. Incarceration can affect employment, and employment can affect incarceration. In an effort to take account of this nonrecursiveness, an instrumental variable was introduced, which was whether the state had introduced structured sentencing. This should be related to incarceration but should have nothing to do with employment. When the instrumental variable was introduced into the pooled time-series model, the effect of releases on unemployment was positive and significant for blacks and insignificant for whites. When the instrument was included in the change model, similar effects were observed.

The results from this county-level analysis are consistent with the contention that incarceration can negatively affect the social organization of communities. The participation of black men in the labor force is lower in counties characterized by the removal of large numbers of black men through incarceration and "tainting" them with a prison record. What was observed by Freeman (1996) and others at the individual level also holds at the county level. This does not necessarily mean that the county-level

effects of incarceration on labor force participation are caused by the individual-level processes posited by Freeman. County-level effects could be caused by racial profiling, where all young black males are tainted regardless of their prison experience; alternatively, the results could be caused by firms exiting areas with high crime and incarceration rates.<sup>3</sup>

## FAMILY FORMATION

There is substantial literature that links the absence of men to declines in the number of two-parent families, but there is much less direct evidence that incarceration is a major factor in reducing the presence of men. Myers and Darity (1994) show that the ratio of unmarried men in the labor force or attending school to unmarried women is highly correlated with two-parent families. The effect of this marriageability ratio is much greater than the effects of welfare benefits in determining family structure. Kiecolt and Fossett (1995) found similar results in both individual- and county-level analyses. The male-to-female ratio in a county had a strong positive effect on the marital status of females. In an analysis of data from 171 cities, Sampson (1987) found that the ratio of men to women had a large negative effect on single-parent households for blacks and a much smaller effect for whites. The effect of sex ratios on family structure was also greater than the effects of employment rates. Myers and Darity (1995) attribute the absence of men to higher rates of infant mortality among black men than women, high levels of mortality from violence and accidents, military service, and incarceration, but they do not include these factors in a model of sex ratios. Sampson (1995) too refers to the role of incarceration in producing low ratios of marriageable men to women, but he does not offer empirical evidence.

Sabol and Lynch (2003) used county-level data to test the effects of admissions to and releases from prison on the number of female-headed households for urban counties in 1980 and 1990. They found that both the level of admissions and the level of releases were positively related to female-headship for blacks but not for whites. Using the same instrumental variables approach as in the effects on unemployment (where the implementation of sentencing reforms is used as an instrument for incarceration), they found that increases in prison admissions and releases led to increases in the number of black families headed by single females.

It is not entirely clear how incarceration affects the level of female headship. Consistent with Myers and Darity (1995) as well as Sampson (1995), Sabol and Lynch (2003) hypothesized that admissions to prison would affect male/female ratios because large numbers of men were removed

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3. Personal communication with David Weiman, July 5, 2002.

from the marriage pool. Incarceration would also increase female headship by tainting persons released from prison and thereby reducing their prospects in the job market. As their employability declines, so too does their attractiveness as a partner. In areas where high levels of unemployment persist, the norms governing marriage formation may change so that marriage is no longer the expectation. The foregoing analyses suggest that the "tainting" effect of imprisonment is positively related to rates of unemployment. The supply of employed men, in turn, is negatively related to female headship. Nonetheless, there is still a positive effect of incarceration on female headship, even when the supply of employed men is in the model. This suggests that removal has a direct effect on female headship that is not mediated by the availability of employed men. This effect could occur through the simple availability of men regardless of their employment status. Alternatively, imprisonment can leave a "taint" that effects more than one's prospects in the labor market.

Myers (2000) tested the theory that the formation of stable two-parent families is related to the state of the marriage market. He argued that when there are large numbers of marriageable men relative to unmarried women, fewer female-headed families will form. Imprisonment reduces the supply of marriageable men, and sentencing policies that lead to increases in imprisonment will therefore reduce the supply of marriageable men and increase the incidence of female-headed families. Myers tested this theory using NLSY data merged with county-level counts of prison admissions and releases (from the Bureau of Justice Statistics National Corrections Reporting Program data) and with Census data on characteristics of NLSY sampling units. He found that the effects of increases in incarceration because of changes in sentencing policy on local areas were small. More of the variation in inmate family structures was explained by sex ratios and welfare receipts at the county level.

## FAMILY MAINTENANCE

Imprisonment can disrupt existing families and thereby contribute to the demise of less coercive institutions of social control (Western and McLanahan, 2000). This disruption can be temporary as in the case where a parent is removed for several months and then returns to the family. Here the disruption derives from their absence and then the adjustment upon their return. The disruption could also be longer term when imprisonment leads to the dissolution of the family. In this case, the disruption could persist unless or until the missing member is replaced.

Disruption means that many of the functions performed by the family simply are not done when a member of the family is removed. Providing for the physical and emotional needs of children, for example, may not be

done or done as well when one parent is incarcerated as they are when all members of the family are home.

There have been a number of qualitative and clinical studies of the impact on children of incarcerated mothers (Bloom, 1995; Johnston, 1995). These studies describe in detail the pains of imprisonment (both physical and emotional) on those left behind, but they are often conducted on small and very selected groups of prisoners and families. There have been fewer such studies of the effects of incarcerating men. At the other end of the evidence spectrum, surveys of inmates include minimal information on family disruption, e.g., divorce, but their data are available for large and representative samples of inmates.

As women are most often the primary caregivers for children, it is broadly assumed that removing women with children will have very disruptive effects on families. Qualitative studies support this contention. As the number of women incarcerated is so small, however, it is not likely to be a major source of removal for women who are mothers. In 1998, there were 84,427 women in state prison and 1,218,000 men. The 1997 Survey of Inmates in State and Federal Correctional Facilities reported that about 65% of female inmates had at least one minor child and 64% of these women claimed to be living with their child (children) at the time of their admission. This reduces even further the potential impact of incarcerated women on family disruption. In order for incarceration to have a large disruptive effect on families, the incarceration of men must be shown to have negative effects on families.

Fishman (1990) studied the effects of incarceration on partners and families of male prisoners. Most of these women experienced severe financial problems as a result of their partners' incarceration. A few, especially those whose partners were not working prior to imprisonment, were financially better off as a result of his absence. For those with children, "having full responsibility of raising their children. . . was a severe hardship":

Most women with children complained about the task overload. Two parents are hardly enough to deal with many of the demands of child-care. Prisoners' wives often encountered a succession of days filled with too much to do. Unrelieved responsibilities can be particularly depleting if there is none to attend to the wife's needs, i.e. no one with whom to talk. . . Many wives reported that this often led them to despair. (p.199)

Fishman also reports that these women found some benefits in their partner's incarceration, specifically, increased autonomy and peace and quiet. Only three of her subjects (out of 30) ultimately filed for divorce. This suggests that although the disruption of families resulting from prison is substantial, it does not often result in dissolution of the union.



Fishman's work is based on a group of 30 women in Vermont who were partners of inmates in state correctional facilities and who consented to speak with her. It is difficult to know whether the repercussions of imprisonment observed in this study represent that of all partners and families of prisoners. It seems unlikely that the experience of this group would be similar to that of black inmates from large cities, for example. The process of adjustment may be similar, but the proportion experiencing specific outcomes, e.g., divorce, may be very different.

If we assume Fishman's picture of disruption, we must also determine how large a group would be affected by this form of family disruption—how many prisoners are in some form of union or family that could be disrupted. If the bulk of inmates are single males, then relatively few families will be disrupted by the imprisonment of a parent. The 1991 Survey of Inmates in State Correctional Facilities estimates that about 19% of the stock population of inmates was married and about 24% were separated or divorced. Stated differently, approximately 43% of the prison population has or could potentially experience family dissolution as a result of imprisonment (Lynch and Sabol, 2000). This is a fairly large proportion of prisoners. If we look at family dissolution (divorced or separated) as a percent of those eligible (married, divorced, separated), then 56% of ever married prisoners are divorced. The general population rate is about 17%. This difference can be caused by the pains of imprisonment or to the greater instability of persons who become inmates relative to the rest of the general population.

Restricting our focus to marriage will understate the participation of inmates in families in that many marital relations may not be formalized and there may be relations with children without spouses. Twenty-four percent of the male inmates in state and federal facilities in 1997 claimed to be living with their children at the time of their arrest (Mumola, 2000). This situation is where the removal of a family member is most likely to cause disruption. Approximately 32% of male inmates reported having children with whom they have had contact since their incarceration. Fifty-seven percent of state and federal inmates in 1997 claimed that they had a minor child, but it is not clear what the relationship is between the incarcerated parent and the child. These data provide rough order of magnitude estimates of the proportion of prisoners whose removal could disrupt families—somewhere between 24% and 57% of prisoners. If we apply these proportions to the stock correctional population in 1999, this would mean that 331,654 to 787,678 families are possibly affected by the imprisonment of male partners on a given day.

The qualitative studies of small groups of inmates and their families in combination with the inmate surveys suggest that a large proportion of the imprisoned population have ties to families at the time of their admission.

They also suggest that imprisonment strains and, in some cases, disrupts those relationships. This makes more plausible the contention that incarceration has a prevalent negative impact on the families of inmates.<sup>4</sup>

There is, however, good reason to be suspect of these studies for estimating the nature and magnitude of the impact of incarceration on households of inmates and former inmates. For descriptive purposes, the small samples employed in the study of inmate families call into question the representativeness of results. Although the inmate surveys may be representative of the inmate population, they rely exclusively on the recall and reporting of inmates on the well-being of the household. For the purpose of analyzing the effect of incarceration on the well-being of households, the absence of comparison groups that have not experienced incarceration and the lack of data on well-being prior to incarceration limit what can be done with the data sources reviewed here. Until the negative effects of incarceration on families are established, there seems to be little reason to believe that the negative effects of incarceration on communities are mediated by families.

In sum, the indirect evidence that incarceration has negative consequences for communities because it has negative consequences for attachments to the labor force and families is not overwhelming. Although there is convincing evidence that incarceration taints inmates in the labor market, there are no direct tests of whether or under what circumstances these individual outcomes will affect communities. The research on the impact of incarceration on family formation is more equivocal. Some studies have found effects of incarceration on family formation, whereas others have not. The data on the role of incarceration in family disruption is even more meager. There are a few case studies with small and unrepresentative samples and large-scale inmate surveys with little information on inmates. Neither source is ideally suited for studying the effects of incarceration on the families of inmates.

## DIRECT EVIDENCE OF THE EFFECTS OF INCARCERATION ON COMMUNITY ORGANIZATION

As noted earlier, most of the beneficial effects of imprisonment on less coercive institutions of social control are expected to occur through crime reduction. It is possible, however, for incarceration to affect community organization directly and not through crime reduction.

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4. Western and McLanahan (2000) found that male partners had substantially higher estimates of their contributions to child-rearing and household maintenance than their female partners.

Rose and Clear (1998b) examined incarceration rates in a number of neighborhoods in Tallahassee and the association between incarceration and residents' perceptions of the legitimacy of the criminal justice system. They found that high incarceration rates were negatively associated with perceptions of legitimacy. Although these findings raise questions about the wisdom of punishment, they do not assess the effects of incarceration on the organization of the community per se or on the mobilization of the community for self-protection, i.e., collective efficacy. The cross-sectional nature of the data and the nonrecursive relationship between incarceration and legitimacy raise some questions about the relationship between coercion and perceptions of legitimacy. Incarceration rates may be high because of the lack of legitimacy with which the criminal justice system (and perhaps other institutions) is held rather than legitimacy being low because of high incarceration rates.

Lynch and Sabol (2004) examined the effects of neighborhood incarceration rates on collective efficacy and on the social organization of neighborhoods in 30 Baltimore communities. The model they tested predicted the participation of individuals in collective efficacy, i.e., the willingness of residents to intervene to stop crime and disorder, using both attributes of areas and individual respondents. The neighborhood-level variables included the average tenure of residents, persons in poverty, crime rates, and rates of admission to prison. Individual-level variables included community solidarity,<sup>5</sup> participation in voluntary organizations,<sup>6</sup> neighboring,<sup>7</sup> and collective efficacy.<sup>8</sup> There were other attributes of individuals that were entered into the model as control variables.<sup>9</sup> In the model, residential tenure and poverty were exogenous. They determined levels of crime and levels of incarceration. The community organization variables, i.e., voluntary association membership, community solidarity, and neighboring, were determined by both the exogenous variables and crime and incarceration. All of these variables, in turn, determined collective efficacy.

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5. Community solidarity was assessed by questions about whether residents feel a sense of community in their neighborhood or block and if they feel attachments to their neighborhood or their block.

6. Participation in voluntary associations is a count of the number of voluntary associations in the community that the respondent belongs to.

7. Neighboring was measured by a series of items asking about interaction with neighbors such as borrowing tools, running errands, watching the house, visiting, exchange keys, pick up mail, and work on community projects.

8. Collective efficacy was assessed by questions about whether people in the neighborhood (including themselves) would intervene to stop a burglary or teenagers making a disturbance or get help to stop a burglary or a disturbance.

9. These variables included the race of the respondent, gender, educational attainment, marital status, years in residence, whether they had children, and whether they owned their house.

In their initial analyses of these data using ordinary least-squares regression (assuming that crime and incarceration were independent), they found that changes in neighborhood incarceration rates over time were not significantly associated with higher levels of participation in collective efficacy by individual residents. Incarceration, however, was associated with lower levels of community solidarity and participation in voluntary associations by these residents. This was the case, even when residential stability, changes in area crime rates, change in the social class composition of the area, and a number of characteristics of the individual were held constant. These initial analyses were somewhat suspect because they did not take into account the nonrecursive relationship between incarceration and crime and the fact that the data were nested, i.e., individuals were located within communities.

To address these weaknesses, Lynch and Sabol estimated a final set of models using techniques that take account of the fact that the data were nested, i.e., persons were located within communities, by using hierarchical linear modeling (HLM) techniques. In these models, the positive effects of incarceration on collective efficacy continued to be statistically significant, whereas the negative effects of incarceration on community organization and specifically on community solidarity also persisted. These findings provide limited support for Rose and Clear's assertion that incarceration can have negative effects on community organization and informal social control.

The few studies that have directly examined the effect of incarceration on informal social control in communities have found that incarceration has negative effects on community organization and, in some instances, a positive effect on participation in collective efficacy or informal social control. Models using the most appropriate methodology find negative effects of incarceration on community organization and a positive effect on collective efficacy. However, these results are fragile. The survey data used in these studies are thin with relatively few observations per neighborhood. More work needs to be done to confirm these results and to expand on them. In the next section, we outline the kinds of research and data collection that would improve the evidence available.

## WHAT MORE NEEDS TO BE DONE?

Overall, then, the empirical evidence that the massive increase in incarceration occurring over the past 15 years has negatively affected the social control capacity of residential communities is weak. Studies done to date have not shown unequivocally that incarceration has adversely affected private controls and specifically families. The evidence that removal by incarceration, *per se*, negatively affects family formation is mixed and the

evidence that removal affects preexisting families is virtually nonexistent. Although studies demonstrating the negative impact of incarceration on the labor force attachments and earnings of inmates are persuasive, the effect of these outcomes on families has not been fully assessed. There is some evidence that incarceration undermines parochial controls in residential communities. Although incarceration has a positive effect on collective efficacy, it has a negative impact on aspects of community organization, e.g., community solidarity, on which collective efficacy depends.

With respect to the effects on private controls, steps must be taken to link individual-level studies to both family and community. Negative labor force outcomes for incarcerated individuals, for example, must be associated with outcomes for their families or households and ultimately for residential communities, if possible. This will not be easy. The sample design of NLSY and other national surveys used to assess labor market outcomes are not sufficiently clustered to study of residential communities and to do so would introduce massive inefficiencies for their primary purpose—the provision of national-level estimates. A special nested sample of persons within families within communities would be required. Given the clustering of incarceration in residential neighborhoods, it would not be difficult to find neighborhoods with high levels of incarceration, but it would require a special survey that is relatively expensive.

Assessing the impact of incarceration on primary controls in residential communities would benefit from a study of families that included both those that experienced incarceration and those similarly situated that had not. Studies to date have focused almost exclusively on families experiencing incarceration, and they cannot distinguish the effects of incarceration from a host of other factors that could affect these families. This type of study would be useful even if it could not associate the outcomes for families directly with the outcomes for residential communities.

With respect to the effects of incarceration on parochial controls, the first priority should be to conduct more research that directly assesses the effects of incarceration on communities. It is extremely important to replicate the work that has been done showing the negative effect of incarceration on the social organization of communities. The data used are thin with few observations per community. Moreover, the effects of incarceration on aspects of community organization and collective efficacy are not that strong. For these reasons, replication is essential.

The process of replication could be accelerated if supplements could be added to existing or ongoing data collections. The MacArthur Neighborhoods Project in Chicago would be an excellent vehicle for replicating the work that Lynch and Sabol have done with Ralph Taylor's data on Baltimore communities. The MacArthur data include more communities than

the Taylor data, and more residents are surveyed in each community. Much of the information in the Taylor surveys can be found in the MacArthur data. It would simply be a matter of obtaining and geocoding the corrections admissions and releases data and reanalyzing the survey data.

In exploring these issues further, some thought should be given to sources of data that are not as dependent on the cooperation and ability of respondents. Although there is nothing wrong with self-report data, it should be supplemented with more behavioral indicators of the health of these communities. Indicators like the number of vacant units or land values would be useful.

The problem of simultaneity in these models needs more attention. We cannot ignore nonrecursiveness in the models linking incarceration to community organization. Lynch and Sabol (2004) paid some attention to the problem by instrumenting the crime-incarceration relationship in their analysis. Without taking into account the reciprocal nature of the relationship between incarceration and crime, it is, as they show, possible to conclude that higher levels of incarceration lead to higher levels of crime, when in fact the true statistical relationship is a negative one. These findings turn, in large part, on the instrumental variables chosen to deal with nonrecursive relationship between crime and incarceration. Although the instruments chosen by Lynch and Sabol are reasonable, other instruments should be used to ensure that the results obtained are robust.

Some attention should be given to the influence of spatial autocorrelation on the relationship between incarceration and crime at the neighborhood level. The findings of no negative relationship between incarceration and crime at the neighborhood level may in some cases be caused by spatial autocorrelation. The incarceration of offenders in a neighborhood may not reduce crime in that neighborhood, but it may reduce crime in the adjacent communities that have low incarceration rates. Unless these effects of adjacency are taken into account, the negative effect of incarceration on crime may be understated. It will appear that there is no relationship between incarceration and crime at the neighborhood level when there is one.

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