

COERCIVE MOBILITY AND CRIME: A PRELIMINARY EXAMINATION OF CONCENTRATED INCARCERATION AND SOCIAL DISORGANIZATION*

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This article explores how incarceration affects crime rates at the neighborhood level. Incarceration is analyzed as a form of residential mobility that

* This research was supported by a grant from the Center for Crime, Communities, and Culture of the Open Society Institute. The opinions, findings, and conclusions, or recommendations expressed herein are those of the authors and do not necessarily represent the official position of the Open Society Institute. The authors thank Ken Land, Gary Kleck, and Darren Sherkat for their comments on an earlier version of the article. A previous version of this article was presented at the annual meeting of the Southern Sociological Society, April 8-11, 1999. Address all correspondence to Todd R. Clear, Doctoral Studies, John Jay College of Criminal Justice, 899 10th Avenue, New York, NY 10019; e-mail: tclear@jjay.cuny.edu.

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may damage local network structures and undermine informal control. Geocoded data are combined with census data, data on incarceration convictions and releases, and crime data for Tallahassee, Florida. The results show a positive relationship between the rate of releases one year and the community's crime rates the following year. They also show that low rates of admissions to prison have an uncertain impact on crime rates, moderate rates reduce crime, and higher rates increase crime. Implications for criminal justice policies are discussed.

Theorists working in the social disorganization tradition have long focused on three ecological predictors of crime: poverty, ethnic heterogeneity, and residential mobility (Shaw & McKay, 1942). Contemporary researchers have expanded that list to examine the impact of additional factors, such as single-parent families, structural density, and urbanization (Bursik, 1986, 1988; Bursik & Grasmick, 1993; Sampson, 1985; Sampson & Groves 1989). These forces are thought to promote crime through the way they increase social disorganization, reduce social integration, increase isolation and anonymity, and reduce informal social control. Advances in social disorganization theory have helped to update our understanding of the ways in which urban areas have changed since the first exposition of these ideas in the 1940s. Other studies (Bursik & Grasmick 1993; Morenoff, Sampson, & Raudenbush, 2001; Rountree & Warner, 1999; Sampson & Groves, 1989; Sampson, Raudenbush, & Earles, 1997) have attempted to specify the mediating factors of disorganization. Taken as a body, social disorganization theory has an extraordinarily rich conceptual and empirical heritage, and a broad literature has developed regarding the sources of social disorganization.

Rose and Clear (1998a) hypothesized that high concentrations of incarceration may be another disorganizing factor. They put forth the idea that incarceration, especially at high rates, could disrupt social networks by damaging familial, economic, and political sources of informal social control. The consequence of this damage, they theorized, would be more, not less, crime. From their review of the literature, Rose and Clear first showed how high rates of incarceration may be expected to damage fragile social networks that constitute the basis for informal social control. They also argued that prison releasees, many of whom have deviant orientations, further exacerbate problems of normative heterogeneity. Using Bursik and Grasmick's (1993) systemic reformulation of social disorganization theory as a framework, Rose and Clear described a nonrecursive model of the effects of incarceration. Essentially, their hypothesis defined incarceration as "coercive mobility," in which

the effects of formal social-control efforts at Time 1 produce neighborhood dynamics at Time 2 that are similar to those resulting from the voluntary mobility typically modeled by theorists of social disorganization.

Until recently, theorists of social disorganization have not regarded the effects of public policies as important considerations for their models of public safety. Public policies were generally thought of as responses to crime, not antecedents of it, so these theorists tended to concentrate on informal social control, rather than formal social control.

It is clear from a string of studies that informal social control has important impacts on crime rates at the neighborhood level. To illustrate, Bellair (1997) analyzed the influence of the frequency of neighbors' interactions on crime in 60 urban neighborhoods, finding that "getting together with neighbors" had a negative impact on burglary, auto theft, and robbery. A related analysis (Bellair, 2000) found that neighbors' "informal" surveillance of one another's property had a negative affect on some types of crime, but not on others. Markowitz, Bellair, Liska, and Liu's (2001) analysis of the British Crime Survey found that decreases in neighborhood cohesion resulted in greater crime and disorder. The preponderance of evidence indicates that informal social control has engendered a new theoretical specification of neighborhood-level crime, "collective efficacy," positing that social cohesion and informal social control reduce crime (Sampson et al., 1997). Data from Chicago suggest that informal social controls—voluntary associations, kin/friend networks, and local organizations—can be the source of greater collective efficacy that, in turn, reduces crime (Morenoff et al., 2001).

In their important clarification of the systemic nature of social ecological models, however, Bursik and Grasmick (1993) noted that social disorganization theory may be specified as a theory both of formal and informal social control. They pointed out that mechanisms of social disorganization blunt the capacities of both formal and informal social control and thereby contribute to the occurrence of crime. There is evidence to support the converse of this argument; Velez (2001) showed that poor neighborhoods with strong ties to local government and good relations with the police suffer less crime than do those that lack that access to resources of public social control. But the relationship between formal social control and crime at the neighborhood level has not been the subject of much previous study.

Rose and Clear's (1998a) hypothesis is that incarceration as a formal social control can, after a certain level or "tipping point," become a source of social disorganization. This article provides a partial test of their hypothesis. In our study, we used two measures of incarceration (admission rates and release rates) while controlling for the traditional variables of social disorganization to test whether incarceration, conceptualized as "coercive mobility," leads to higher levels of crime. Although the model that Rose and Clear proposed is a nonrecursive one, in which there is a feedback loop between policy responses to crime and the ecological factors that lead to crime, we tested a recursive model, in which we investigated the impact of a neighborhood's incarceration rates in one year on crime rates the following year. Nonetheless, by incorporating a variable (incarceration) typically thought of as a response to crime as an independent variable modeled to influence crime, this study is conceptually consistent with their work.

INCARCERATION, MOBILITY, AND CRIME

A central tenet of social disorganization theory is that mobility is a powerful ecological-level criminogenic factor. High rates of residential mobility are thought to contribute to crime in three different ways. First, mobility produces residential areas in which neighbors are isolated from one another and therefore are constrained from engaging in the collective action that undergirds self-regulation (Sampson, 1991). Second, a residential area that has high rates of newcomers will have a low degree of social integration among residents, contributing to the anonymity that impedes social cohesion (Crutchfield, 1989; Crutchfield, Geerken, & Gove, 1982). Third, mobility reduces the sense of commitment to a neighborhood that makes those who live there feel they have a stake in collective action to achieve shared aims—an atmosphere of anonymity impedes informal social control (Warner & Pierce, 1993). Thus, an area's level of mobility is an important feature of social stability, a factor that influences the link between neighborhood disorder and crime (Skogan, 1990) and the community's capacity for collective efficacy (Sampson & Raudenbush 1999; Sampson et al., 1997).

These various conceptualizations of mobility present it as a source of instability in local neighborhood life. The perspective is intuitively appealing. In a place where one's neighbors turn over rapidly, there is less incentive to get to know them and more disincentive to rely on them in times of need. When one lives in an area with a sense of being there only temporarily, one has little reason to join local social groups or develop interdependent ties to others. The friendships among people become strained by transience, and the

capacity of parochial social control (Hunter, 1985) suffers from a dearth of committed participants in the groups that form the basis for those controls (Putnam, 1993).

Mobility is typically thought of as voluntary movement from one place to another. In some communities, however, involuntary or coercive mobility may be the dominant force of movement in and out of a neighborhood. This may be particularly true in opportunity-starved locations, in which voluntary relocation is a rare option and the forces of residential segregation are difficult to overcome (Massey, 1990; Massey & Denton, 1993). In these areas, coercive relocation may be common: Many residents may be removed from the neighborhood for incarceration, and others may return to the neighborhood after incarceration.

The importance of incarceration as a form of mobility is a relatively new phenomenon. Since the 1970s, incarceration rates nationally have risen 500%. In 1997, an estimated 7.5 million people were removed from their communities to serve sentences in prison or jail, and an equivalent number were returned to their communities from prison or jail (Hammett, 2000). This outward mobility is matched by an equivalent inward mobility, since by far, most of those who are incarcerated are eventually released to be reintegrated into a community. Nationally, it was estimated that in 2002, about 600,000 (Petersilia, 2000) people were released from prison and upward of 10 million were released from jail (Hammett, 2000).

Most of the impact of this growth has been concentrated among inner-city residents and those of color. It is estimated that the lifetime probability of a black male going to prison is now 28% (Bonczar & Beck, 1997). This racial concentration further clusters in particular inner-city neighborhoods. Lynch and Sabol (1992, 1996) estimated that in some sections of Washington, DC, for example, as many as 25% of black men aged 20-45 are locked up on any given day. Incarceration rates in the Brownsville neighborhood of Brooklyn are 150 times that of another Brooklyn neighborhood, a few blocks away. In Brownsville, it has been estimated that about 3% of the men went to prison in 1996 alone (Center for Alternative Sentencing and Employment Services, 1998).

It is easy to see how coercive mobility in these locations could play a destabilizing role in community life that is similar to that of voluntary mobility (independent of the direct effects of incarceration itself). Residents who go into and out of neighborhoods because of prison would be as likely to exhibit some of the same lack of interest in the long-term interests of those places as those who are transient for other reasons. But coercive mobility is also thought to have an impact on the people who remain in the neighborhood.

Some researchers have explored the destabilizing impacts of incarceration on familial, political, and economic systems (Meares, 1998a, 1998b; Rose & Clear, 1998a). For instance, although attempts to identify the contribution of incarceration to single-parent families (Lynch & Sabol, 2002; Myers, 2000) have produced inconclusive results, the removal of men is likely to be associated with higher levels of unsupervised youths, one of the principal characteristics of disorder. In a study of two high-incarceration neighborhoods, Rose, Clear, and Ryder (2000) found that while residents benefited from the incarceration of family members and neighbors who were committing crimes, they suffered many losses as well. For instance, family members had to absorb the additional financial burden of paying for phone calls from inmates, traveling to visit them, and financially supporting them on their return to the community. Residents suffered from other effects, such as problems associated with the stigma of incarceration in the family and the neighborhood, in addition to problems with self-esteem and attenuated social relationships. Many residents reported withdrawing from community life in the aftermath of a family member's incarceration. Thus, it seems likely that high incarceration rates concentrated in certain communities could increase social disorganization by depleting the already limited resources of community members and by damaging the social networks that serve as the basis for social capital and ultimately promote private and parochial social control.

There is an additional problem with coercive mobility: It negatively affects family and friends and their attitudes toward the criminal justice system. Rose and Clear (1998b) found that knowing someone who has been incarcerated influences people's attitudes about formal and informal social control. They noted that for people who are exposed to incarceration, either by having been to prison or by knowing someone who has, a low opinion about formal control was associated with a low opinion of informal control. (They found the opposite relationship for these who were not exposed to incarceration.) Thus, high levels of incarceration may undermine the efficacy of informal social control.

Coercive and voluntary mobility, then, should have parallel effects on community stability because they both represent a kind of population churning that inhibits integration and promotes isolation and anonymity. At the same time, coercive mobility is different from voluntary mobility because incarceration removes people from the community who commit crimes. As a result, removing offenders from the community is commonly thought to promote community

cohesion by reducing both the fear of crime and the existence of disorder that contribute to isolation and anonymity (Kelling & Coles, 1997).

Rose and Clear (1998a) recognized the dual impact that coercive mobility may have on the community. To address this impact, they proposed a tipping point of effects, at which low concentrations of incarceration may indeed enhance community stability and high concentrations may diminish it. The idea of a social-effects tipping point, at which a few people, coercively moved out of one neighborhood, affect the entire neighborhood, is not obvious on its face. Even in high-incarceration neighborhoods, for example, only 2%-3% of the population get removed for imprisonment in a given year, with a roughly equivalent number returned annually. As a cross-sectional measure of mobility, the numbers seem low. But for high-incarceration neighborhoods, one year's sample of disruptions represents a pattern of disruption over time: Over a four- or five-year period, a 2% disruption rate becomes 10%-15% of coercive residential mobility. When this figure is disaggregated by sex and age groups, the proportion of parent-aged men affected by coercive mobility can be high. Moreover, the impact of this pattern is felt not just on the individuals who are removed or returned, but on the kinship and community networks associated with each case.

The theory, then, is that coercive mobility effects those who remain through networks of associations. For example, Rose et al. (2000) interviewed over 120 people (snowball sampled using multiple entry points) in two high-incarceration neighborhoods in Tallahassee and reported that every respondent identified at least one family member who had been to prison. Across time and through interwoven networks of association, the impact of imprisonment in high-incarceration neighborhoods can spread widely. Rose and Clear's (1998a) hypothesis is that these impacts, after a certain level of incarceration, damage the capacity of informal social control.

In this study, we sought to clarify the ways in which coercive mobility affects community stability. As a result, we disaggregated coercive mobility into its components, admissions and releases. Although we typically might expect to see a decrease in crime with increases in prison admissions and an increase in crime with increases in prison releases, what the preceding discussion shows is that the relationship between admissions and crime may be different in high-incarceration neighborhoods than it is in low-incarceration neighborhoods. Thus, while we hypothesized a positive

relationship between releases and crime, we hypothesized a curvilinear relationship (first negative, then positive) between admissions and crime.

DATA, MEASURES, AND METHODS

This neighborhood-level study was conducted in Tallahassee, Florida (Leon County), a moderate-sized southern city and the capital of the state. For each neighborhood, we collected three types of data: Florida Department of Corrections (DOC) prison admissions from Leon County and prison releases to Leon County, 1996; Tallahassee Police Department crimes known to the police, 1996 and 1997; and U.S. census data, 1990.

Construction of Tallahassee Neighborhoods

Tallahassee has many neighborhoods and active neighborhood associations, but we know of no prior attempt to delineate neighborhoods and establish their boundaries formally. As a result, our first task was to define as many neighborhoods as possible. We began by contacting the Tallahassee Leon County Planning Commission, which provided current maps of Tallahassee city limits, census tracts, and block groups.

We mapped Tallahassee neighborhoods in three steps. In the first step, completed in early 1997, we conducted a survey of all local neighborhood associations registered with the city of Tallahassee Neighborhood Services, asking each to identify the boundaries of their association. Responses were mapped and coded and, as a validity check, were compared with the boundaries determined by the Tallahassee Neighborhood Services. Where exact neighborhood boundaries were problematic, a second step involved a case-by-case review of substantive geographic features, such as roads, railroad tracks, and land uses. The final step, completed with the assistance of the Tallahassee Police Department, compared neighborhood boundaries to established police crime-reporting areas and U.S. census block groups. The result was a total of 103 Tallahassee neighborhoods, each of which was defined by boundaries coterminous to both police reporting areas and to data on the U.S. census block groups. In 23 neighborhoods, the census block group spanned across the county boundary; thus, while the neighborhood we identified was wholly in the city, the census data covered a larger area.

So as not to attribute noncity census demographics to these neighborhoods, we excluded them from the analysis, leaving a total sample of 80 for subsequent analysis.¹ These neighborhoods range from a population of 249 to a population of 4,538.

Sources of Data

Crimes known to the police, 1996 and 1997. The Tallahassee Police Department provided crime statistics by geographic location that were based on Tallahassee Police Department reporting areas. All 1996 and 1997 offenses reported within Tallahassee's city limits, including homicide, sexual battery, other sex offenses, strong-arm robbery, armed robbery, commercial burglary, residential burglary, auto burglary, auto theft, aggravated battery with firearm only, aggravated assault with firearm only, loitering and prowling, and suspicious incident, were mapped by neighborhood.

Florida DOC admissions. The Florida DOC provided two data files for all offenders admitted in 1996 to serve prison sentences who listed Leon County as their place of residence. The first file contained address records for all Leon County offenders. These records, obtained from the DOC original arrest reports filed by the arresting officers, listed 465 offenders admitted to prison in 1996. Twelve records were duplicates and were dropped from the study. Of the remaining 453 records, 201 (44%) had no address and thus were also dropped from the study. The remaining 252 addresses were mapped, indicating that 97 (38%) were outside the city of Tallahassee. The total number of offenders admitted to prison in our sample was 155. There were 146 admissions to prison in 1996 in the 80 neighborhoods used in this analysis.

The second file provided by the DOC contained demographic data on the total sample of 462 offenders; 93% were male and 7% were female, and 76% are black and 22.7% were white.² The most frequent offenses these offenders were convicted for were cocaine-related (possession and sale) robbery and burglary. Although most

¹ All 23 excluded neighborhoods occupy the perimeter of the city and thus have overlapping police-reporting districts with the county sheriff. Our crime data were from the Tallahassee Police Department. Crimes reported at locations within these neighborhoods but outside the city of Tallahassee are not recorded by the Tallahassee Police Department and thus were unavailable to us. Crime was our dependent variable, so we did not estimate models using cases for which we had incomplete crime data. Because these are perimeter neighborhoods, they are different in several respects from the remaining Tallahassee neighborhoods that fall fully within the city boundaries, including prison admissions rates, release rates, poverty, and public assistance. Excluding these cases means that the pattern we report does not include some of the city's perimeter locations, nearly all of which are low on the coercive mobility measures. The loss of these locations is a constraint on our models.

² For both admissions and releases, no common field linked the demographic data to the address files.

of the offenses were committed before 1996 (70%), most of the offenders were convicted sometime during 1996.

Florida DOC releases. The Florida DOC provided two data files for all offenders who were released in 1996 back into Leon County. The first data file contained 417 records obtained from Inmate Release Plans. Of the 417 records, 12 (3%) contained no addresses and were dropped from the study. The remaining 405 records were mapped, indicating 115 addresses (28%) outside the city of Tallahassee. The total number of released offenders in our data set was 290. There were 253 released offenders in the 80 neighborhoods used in this analysis.

The second file contained demographic data provided by the DOC on all 417 releases, showing that 77% of the releasees that year were black and 23% were white. The most frequent offenses these offenders were convicted for were burglary, cocaine related (possession and sale). Information on gender was not provided.

1990 U.S. census data. Demographic information was drawn from 1990 U.S. census block groups (U.S. Bureau of the Census, n.d.), aggregated to the neighborhood level. Census variables included in our analysis were population, race-ethnicity, residents not living in their same house since 1985 (residential mobility), and residents living below the poverty level.³

Measures

Crime and corrections variables. The dependent variable was crime in each neighborhood in 1997. The number of crimes per neighborhood ranged from 5 to 260, with a mean of 62. The crime rate, measured as crime per 100 residents, ranged from .36 to 30.92, with a mean of 5.54.

Two independent variables were used to tap the level of coercive mobility: admissions to prison in 1996 and releases from prison

³ We attempted to find supplementary data to measure residential mobility because the data provided by the census made it impossible to distinguish between interneighborhood moves and intraneighborhood moves. Potentially, this is an important distinction, since it may be argued that intraneighborhood moves would be less disruptive for the community because the population base would be stable even if residents moved around within the neighborhood. In addition, the census measure of residential mobility does not measure equally well the stability of neighborhoods that lost population and those that gained population during the previous five years and thus may seriously underestimate the instability in neighborhoods with significant outward mobility but no significant inward mobility—precisely those neighborhoods that are the least desirable. We also attempted to locate supplementary data on the size of neighborhood populations in an effort to measure population gains and losses as a way to capture differences between inter- and intraneighborhood mobility. Unfortunately, we were unable to correct these problems because the city of Tallahassee does not collect these neighborhood-level data.

in 1996. The number of offenders per community admitted to prison ranged from 0 to 15, with a mean of 1.8 offenders per neighborhood. However, only 42 of the neighborhoods had offenders admitted to prison in 1996. Of these neighborhoods, the mean number of offenders per neighborhood was 3.5. The rate of admissions, the number of admissions per 100 residents, ranged from 0 to 2.00, with a mean of .16. The mean admission rate for neighborhoods with at least 1 admission was .31 ($n = 42$). The full model includes a third-order polynomial for centered percentage of admissions to capture the hypothesized curvilinear relationship between the rate of admissions and crime. Centering prior to the calculation of the polynomials helps alleviate computational difficulties created by the multicollinearity of the three terms (Neter, Kutner, Nachtsheim, & Wasserman, 1996).

The number of releases per community ranged from 0 to 22, with a mean of 3.2 releases back into each neighborhood. However, 24 of the communities had no releases. Of the group that did have releases, the mean number of releases per neighborhood was 4.5. The release rate, calculated per 100 residents, ranged from 0 to 1.61, with a mean of .26. For the neighborhoods with at least 1 release, the mean was .37 ($n = 56$).

Social disorganization variables. The three primary social disorganization variables originally suggested by Shaw and McKay (1942) were poverty, residential mobility, and ethnic heterogeneity. Most contemporary scholars who have used the social disorganization framework (see, e.g., Bursik, 1988; W. J. Wilson, 1987) have argued for a reconceptualization of the original Shaw-McKay variables as suggesting a new construct, often called "concentrated disadvantage," which is meant to reflect the fact that some urban areas are afflicted by multiple problems that place them at a disadvantage with regard to other areas nearby. Several different strategies have been used to model concentrated disadvantage.⁴ We followed the strategy of Morenoff et al. (2001), who combined the z -scores of the percentage of families receiving public assistance, percentage of individuals who are unemployed, percentage of female-headed households with children, and percentage of residents who

⁴ The resuscitation of interest in social disorganization has been led by Sampson and his colleagues, who have used various measures of concentrated disadvantage. Sampson and Groves (1989) used measures of divorced parents and single parents with children; Sampson and Raudenbush (1999) used an index of factor loadings of poverty, public assistance, unemployment, female-headed households, density of children, and percentage black; Morenoff and Sampson (1997) used factor loadings of public assistance, poverty, unemployment, and single-parent families; Raudenbush and Sampson (1999) used poverty and ethnic isolation; and Morenoff et al. (2001) used z -scores for public assistance, unemployment, female-headed households, and percentage black.

are black. The Concentrated Disadvantage Index has a mean of zero and a standard deviation of .767.

Our main interest was to test the impact of coercive mobility, measured as removals to and returns from prison. We thus retained residential mobility, measured as the number of residents in the neighborhood older than age 5 who did not live in the same house five years earlier in 1985, to distinguish this form of residential flux from coercive mobility of the criminal justice system. Residential mobility ranged from 19.68 to 96.03, with a mean of 65.13.⁵ (Correlations and descriptive statistics for all variables are presented in Appendix A.)

Methods

The data were analyzed using the generalized linear model with a negative binomial response function. This model is appropriate for the prediction of positive integers and, as Osgood (2000) showed, can be applied to the prediction of crime rates by incorporating the logged population as an independent variable. Osgood indicated that the negative binomial is a substantially better model than ordinary least-squares (OLS) regression and has the advantage of constraining predicted values to positive numbers. Because it incorporates a dispersion term, the negative binomial is more appropriate for many situations than a Poisson model.

Our general strategy was to construct multivariate social disorganization models of crime in Tallahassee in 1997 in which the effects of coercive mobility—prison admissions and releases—were included as terms. Coercive mobility, in turn, was modeled as an effect of 1996 releases and three effects of 1996 admissions denoted as a polynomial (raw, squared, and cubed). Modeling admissions in this way directly tested Rose and Clear's (1998a) hypothesis because it enabled us to separate the effects of low levels of incarceration from moderate and higher levels, which are thought to be different.

Because of the nature of the data, extensive diagnostics were completed to test for the presence of multicollinearity.⁶ As expected, the percentage of residents admitted to prison and the percentage of residents released from prison are highly correlated (.83). Two typical solutions to this level of multicollinearity are to use one term only or to combine the two variables into a new construct. We

⁵ Some analysts have modeled the impact of heterogeneity by using a direct measure of normative consensus, following Sampson and his colleagues' practice of operationalizing collective efficacy as "shared expectations for social control" (Morenoff et al., 2001, p. 526). This direct measure was unavailable to us.

⁶ We also examined the data carefully, using variograms and mixed models, for evidence of spatial autocorrelation, but found none.

considered combining the two measures to tap the joint effects of incarceration on the community but ultimately decided that admissions and releases were different dimensions and that we wanted to capture this difference, rather than mute it with one construct.⁷ Therefore, we chose a two-step strategy. First, we examined models that contained the third-order polynomial for either admissions rate or release rate and compared these two models. Then we conducted analyses using both measures simultaneously. OLS variance inflation factors (VIF) and eigenvalues were analyzed for all the models. The relationship between the admissions and release rates did not have severe multicollinearity using standard cutoffs of 10 for VIF and 45 for the condition index (Neter et al., 1996). As would be expected, the analysis showed substantial multicollinearity among the three terms of the polynomial for admissions rate. Sequential tests of significance (based on the improvement of fit associated with the addition of each polynomial term) were used to evaluate the impact of each of the terms (Neter et al., 1996).

In small samples, statistical outliers are often a concern. We therefore performed extensive analyses of influential observations. The problem of influence can occur for cases with extreme values on the dependent variable or for cases that exert an undue influence on covariance estimates, often assessed using Cook's Distance (hereafter Cook's D). An examination of the dependent variable (crime97) revealed a skewed distribution with three neighborhoods having outlying high values. An approximation of Cook's D was calculated for each observation in the full model. A value with an associated F percentile of greater than 50 almost certainly should lead to the use of remedial measures, while values between 20 and 50 should be further investigated to determine whether such measures should be used (Neter et al., 1996). In addition, there were two neighborhoods with Cook's Ds percentiles between 20 and 30. One neighborhood, which had the highest Cook's D value and one of the highest crime rates, was therefore in both outlier groups.⁸

⁷ An exploratory analysis revealed that this combined construct was significantly, positively related to crime.

⁸ Of the influential observations, the DFBETAS indicate that two neighborhoods, South Monroe and Tennessee Strip, had a sizable influence on the estimates of the nonlinear terms for admissions. These two neighborhoods had the highest scores on admissions and were two of the three highest on the 1997 crime rate. In addition, they were both among the top four neighborhoods in terms of the percentage of releases and the percentage who were poor. Overall, this pair of neighborhoods represents a cluster of observations with high values of crime, rather than two distinctive profiles. Indeed, although the two neighborhoods are separated by the city center (Tennessee Strip to the north and South Monroe to the south), they are similar types of areas in that both are characterized by a combination of commercial and transitory residential usage. In addition, both are adjacent to relatively stable, noncommercial neighborhoods populated by moderate-income African Americans.

We should note that there is some controversy regarding the problem of influential observations in neighborhood data. Some scholars have argued that the analysis of data using a theory thought to apply to residential areas only ought to exclude "downtown" areas (see Crutchfield, 1989) or, it follows, other areas that do not fit the theory. Others have noted the obvious point that excluding certain cases because they influence the statistical result has a flavor of "cooking the books." This problem is made even more difficult by the mathematical conundrum: To include these cases may produce results that suggest an overall relationship in neighborhood data that is actually driven by one or two extreme cases, while excluding the cases tends to remove the variance needed for meaningful significance testing (especially in small samples). In this article, we opt for a conservative approach, in which we report the results for all cases as a test of the theory and then report the results for subsamples after influential cases were omitted from the analysis to investigate the importance of these influential cases.

RESULTS

Figure 1 is a map of the 80 Tallahassee neighborhoods showing the pattern of admissions, releases, and crime. Each star represents one admission to prison from that neighborhood; each circle represents one release. Both admissions and releases are clustered primarily in the center of town, near the two universities and the poorer neighborhoods. The more affluent communities in the northeast section of Tallahassee have only a few releases and admissions. It is important to note is that admissions and releases are not concentrated in only the highest crime areas. Indeed, they tend to be concentrated adjacent to these areas.

In Table 1, we estimate five different negative binomial models⁹ of the 1997 crime rates in Tallahassee. Model 1 is the baseline model, in which we test the effects of concentrated disadvantage and mobility on the crime rate in 1997, controlling for the neighborhood population and crime rate in 1996. Both terms are significant in the direction predicted by social disorganization theory.

Model 2 tests Rose and Clear's (1998a) hypothesis. In this model, we add release rate and the polynomial for admission rate to Model 1. While mobility remains statistically significant, concentrated disadvantage loses its significance.¹⁰ Neighborhood releases

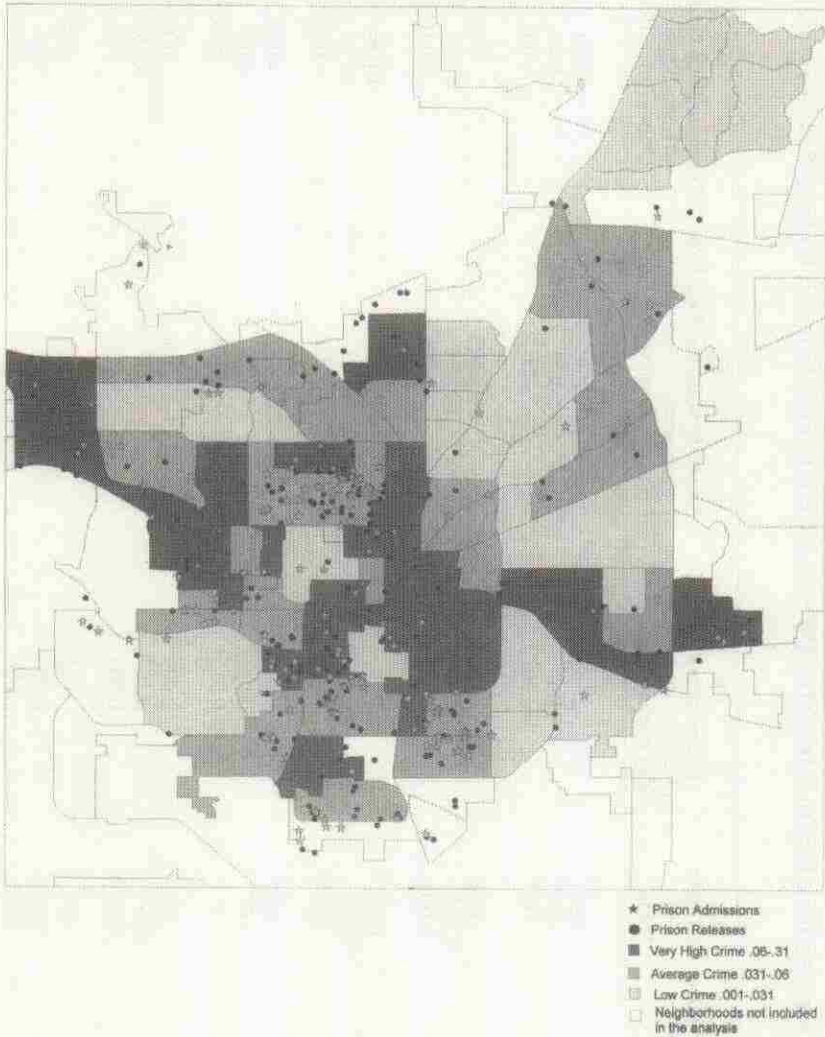
⁹ Because the dependent variable is logged, the coefficients should be interpreted as the proportional change in predicted crime owing to a one-unit change in the independent variable.

¹⁰ The Index of Concentrated Disadvantage is correlated more highly with the two measures of coercive mobility, releases (.66) and admissions (.55), than with the dependent variable, logged crime⁹⁷ (.42).

Table 1. Negative Binomial Regressions Estimating the Effects of Incarceration on Crime Rates in 1997, Tallahassee, Florida

Independent Variable	(1) Estimate Model Without Coercive Mobility	(2) Estimate Full Model	(3) Estimate with the Influential and Outlying Observation Removed	(4) Estimate with the Two Most Influential Observations Removed	(5) Estimate with Observations with the Three Highest Crime Rates Removed
Intercept					
<i>b</i>	-2.23	-2.08	-2.74	-2.90	-3.09
Chi-square	5.89	5.54	11.53	13.49	15.04
<i>p</i>	.015	.019	<0.001	<0.001	<.001
Ln population					
<i>b</i>	.729	.692	.762	.769	.800
Chi-square	31.69	31.28	46.30	49.84	52.97
<i>p</i>	<.001	<.001	<.001	<.001	<.001
Crime rate 1996					
<i>b</i>	6.28	6.62	11.19	10.42	13.36
Chi-square	26.09	21.43	48.13	43.02	56.92
<i>p</i>	<.001	<.001	<.001	<.001	<.001
Concentrated disadvantage					
<i>b</i>	0.232	.087	0.011	.021	-.002
Chi-square	8.27	0.63	0.01	0.05	0.00
<i>p</i>	.004	.437	0.915	.830	.985
Percentage mobility					
<i>b</i>	0.010	.012	0.009	.011	.008
Chi-square	9.54	12.5	8.10	12.07	7.74
<i>p</i>	.002	<.001	0.004	<.001	.005
Release rate					
<i>b</i>		.361	.835	.828	.802
Chi-square		1.31	6.96	7.22	6.97
<i>p</i>		.253	.008	.007	.008

Figure 1. 80 Tallahassee Neighborhoods with Prison Admissions and Releases Shaded by Neighborhood Crime Rate



do not have a significant relationship to crime, nor is there a linear relationship between admissions to prisons and logged crime⁹⁷. But the quadratic (squared) prison admissions term has a significant, *negative* impact on the amount of crime, and the cubic admissions rate has a significant, but *positive*, impact on crime ($p < .10$; a discussion of significance testing levels is presented later). This result is partly consistent with Rose and Clear's prediction that admissions would be related to crime in a curvilinear fashion.

Table 1. Negative Binomial Regressions Estimating the Effects of Incarceration on Crime Rates in 1997, Tallahassee, Florida (continued)

Independent Variable	(1) Estimate Model Without Coercive Mobility	(2) Estimate Full Model	(3) Estimate with the Influential and Outlying Observation Removed	(4) Estimate with the Two Most Influential Observations Removed	(5) Estimate with Observations with the Three Highest Crime Rates Removed
Admissions rate (centered)					
polynomial					
Admissions rate					
<i>b</i>		.879	0.307	.499	-.021
Chi-square		1.75	0.26	0.70	0.00
<i>p</i>		.186	.613	.404	.972
Sequential chi-square		1.59	9.19	7.90	1.04
<i>p</i>		.208	.002	.005	.307
Admissions rate ²					
<i>b</i>		-2.41	-2.89	-3.11	-4.86
Chi-square		4.64	7.83	9.49	2.81
<i>p</i>		.031	0.005	.002	.094
Sequential chi-square		3.40	6.85	7.32	3.10
<i>p</i>		.065	.009	.007	.078
Admissions rate ³					
<i>b</i>		.854	.997	1.094	4.76
Chi-square		2.85	4.49	5.70	1.59
<i>p</i>		.031	0.034	.002	.208
Sequential chi-square		2.72	4.23	5.32	1.55
<i>p</i>		.099	.040	.021	.213
Dispersion	.218	.195	0.154	.145	.143
<i>N</i>	80	80	79	78	77
Deviance	83.62	83.28	82.01	80.63	79.66
Log likelihood	16710	16714	16247	16089	15560

Our concern about influential observations led us to replicate this model in three subsamples in which certain cases were excluded from the analysis. We had to be cautious, of course, in dropping cases from the analysis merely because they were in some way extreme. For one thing, the theory we tested predicts a curvilinear relationship, and extreme cases may be necessary to capture the pattern. For another, these neighborhoods represent real conditions in Tallahassee and are not an artifact of sampling. Finally, in small samples, much of the variance to be analyzed is produced by these cases. Thus, not only is it practically prudent to retain as many cases as possible in the analysis, but in small samples it is important not to drop cases when they are both theoretically and statistically important. Nonetheless, influential cases raise concerns that relationships reported in the aggregate are actually being produced by happenstance patterns in a handful of cases, and this possibility is particularly strong in small samples. We therefore report the results for three additional models.

Model 3 eliminates the most influential observation (the downtown Tallahassee area with a low residential population and a high crime rate, arguably not subject to coercive mobility effects). This model provides even stronger support for Rose and Clear's (1998a) hypothesis. All the coercive mobility terms are statistically significant ($p < .05$), with concentrated disadvantage remaining nonsignificant.

Model 4 was estimated omitting the two cases identified as potentially influential using Cook's D (see footnote 8). The removal of these observations has only a marginal impact on the estimates compared to Model 3 and provides support for Rose and Clear's (1998a) hypothesis.

Model 5 was estimated eliminating the three neighborhoods with the highest crime rates. In this model, the quadratic (squared) and cubic terms have larger estimates than in the other models, but only the former is significant ($p < .10$), although all the coefficients are in the direction predicted by Rose and Clear (1998a). The loss of significance is likely due to the loss of covariance (in relation to the standard error) that resulted from dropping the high-crime neighborhoods.

In sum, Models 2-5 provide consistent (though not uniform) support for Rose and Clear's (1998a) hypothesis. Releases predict increases in crime in three of the four models. The admissions quadratic, representing a moderate level of removals to prison, is associated with a reduction in crime in all four models. The cubic

term of the polynomial is associated with an increase in crime in three of the four models.¹¹

Figure 2 shows the relationship between the percentage of admissions and the predicted value of the logged number of crimes for Models 2-5. (Caution should be taken in interpreting this figure because the actual size of the impact of change in the independent variable on a logged dependent variable depends on the values of the other independent variables.) Model 2 elicits a curvilinear pattern, in which the suppression effect on crime occurs in the quadratic but changes to an aggravation effect in the cubic. An interpretation of this curve is that the cumulative effect of admissions on crime continues to be negative at the higher levels of admissions, but the cumulative negative impact begins to wane because the additional removals are increasing, rather than decreasing, crime. This pattern occurs for all four models, and notably the elimination of influential observations, Model 4, yields curves in which the impact of the higher admissions rate on crime is stronger, not weaker. (Model 5, in which high-crime neighborhoods are eliminated, exhibits a similar, but exaggerated version of that pattern.)

Figure 2 provides evidence that the impact of incarceration changes as the rate of prison admissions increases. Estimates of the precise turning points can be obtained by using the power rule to take the derivative of the regression equation with respect to the admissions rate; these estimates are presented in Table 2.¹² For Model 2, for example, setting the derivative equal to zero and solving using the quadratic equation yields the two turning points (local minima or maxima): .20 and 1.68. Evaluating the second derivative at these points indicates that the first is a maximum and the second is a minimum, as is clear in Figure 2. Table 2 also shows the turning-point estimates for other models, which are similar, with the change to a positive effect occurring earlier in the admission rate's growth when influential cases are removed. To approximate a rough confidence interval for these turning points, we reestimated them eliminating one neighborhood at a time. We found that 90% of these estimates fell between 1.65 and 1.73.

¹¹ Rose and Clear's argument is silent on the impact of small rates of coercive mobility. We found that the linear effect, controlling for the other terms of the polynomial, is an increase in crime for two of the four models, a result that has no obvious logical relationship to the standard crime-control theory or Rose and Clear's alternative theory of coercive mobility.

¹² The derivative provides a formula for the slope of a function. Using the power rule, we find that the derivative of an expression of the form cx^n is ncx^{n-1} . The slope of a horizontal line equals 0; a local maximum or minimum will, by definition, have a tangent that is a horizontal line. For a nonlinear function, points that are local maxima or minima can be determined by setting the derivative equal to 0 and solving for x (see any basic calculus book, e.g., Iverson, 1996).

Figure 2: Relationship between Admissions Rates and $\ln(\text{Crime})$

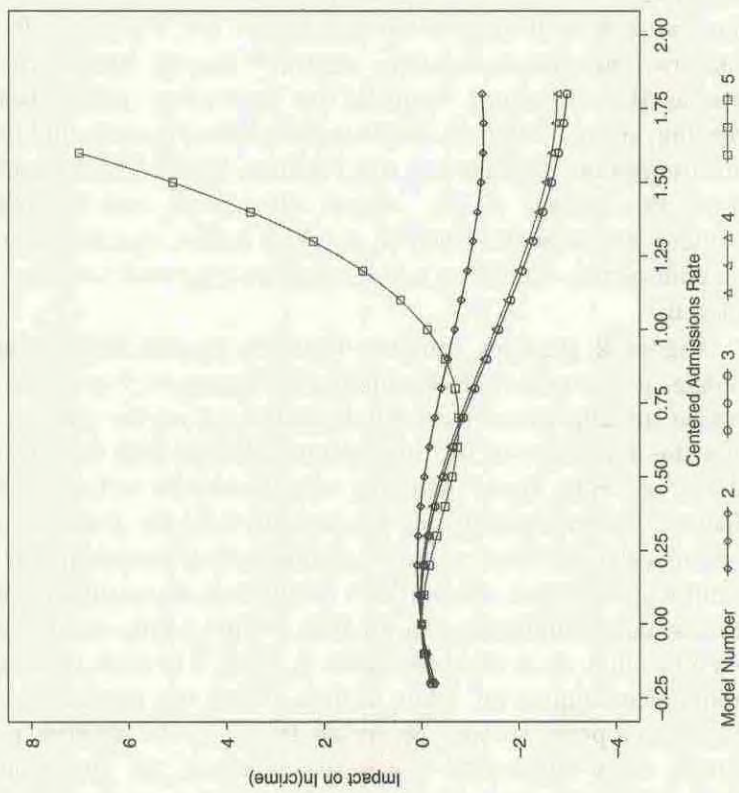


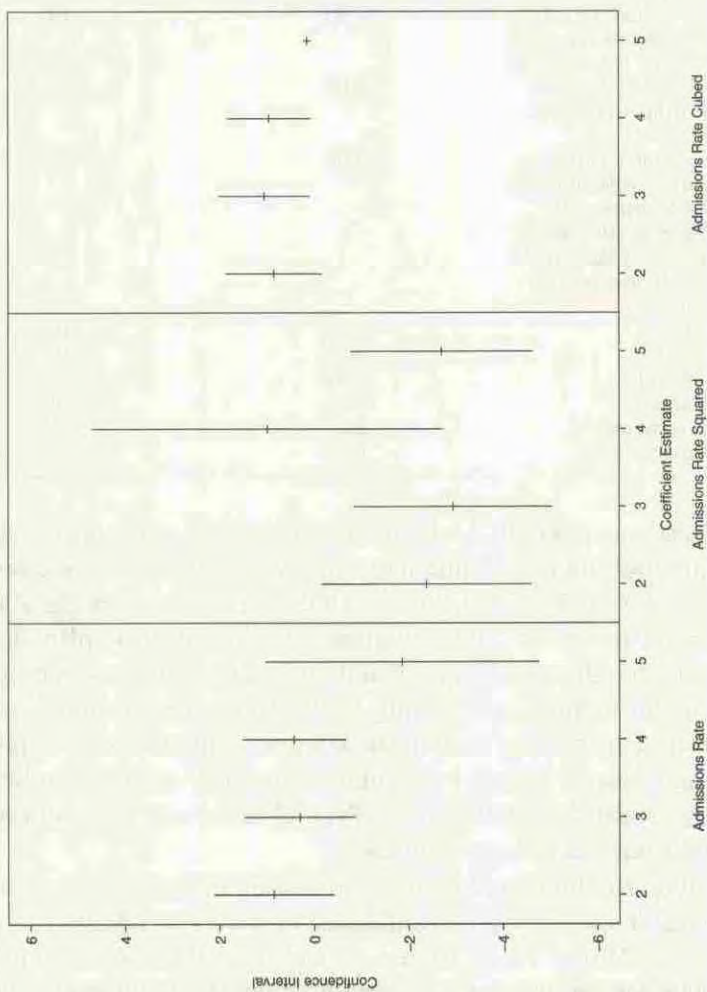
Table 2. Estimates of the Points at Which Slopes Change Signs (Local Maxima and Minima) for the Nonlinear Relationship Between Prison Admissions and Crime (Adjusted for Centering)

	Local Maximum (Immediately above this point the slope becomes negative)	Local Minimum (Immediately above this point, the slope becomes positive)
Model 2: All observations	0.20	1.68
Model 3: Delete influential observation with an out- lying value of crime rate	0.05	1.88
Model 4: Delete the two most influential obser- vations	0.08	1.81
Model 5: Delete three ob- servations with outlying values of crime rate	-0.00	0.68
Analysis of results for 80 models estimated by de- leting one observation at a time		
Mean	0.21	1.64
Median	0.21	1.67
Maximum	0.34	2.02
Minimum	0.05	-1.20
5th percentile	0.19	1.63
95th percentile	0.22	1.71

Taken as a whole, both the direction of the effects of coercive mobility and the nature and location of changes in its effects are all consistent with Rose and Clear's (1998a) predictions. Some of these effects fail to rise to a level of statistical significance, although, in general, the effects are significant ($p < .10$). Some aspects of our data make significance testing problematic: small sample sizes, multicollinearity, and limited covariance. Maltz (1994) pointed out that significance testing in circumstances such as ours can be misleading, since the chances of a Type II error are high unless the effects being studied are dominant.

Given the limits of significance testing in data such as ours, it is advisable to investigate confidence intervals in addition to point estimates (Maltz, 1994). Figure 3 shows the 95% Wald confidence intervals for the four sets of estimates for the admissions polynomial. Model 2—all neighborhoods—and Model 3—with Downtown excluded—show a likely curvilinear effect. Model 4—influential observations excluded—is less conclusive regarding the cubic term. Model 5—with the high crime neighborhoods excluded—is similar to Models 2 and 3, although with larger confidence intervals because of the loss of covariance. Overall, despite the differences in the estimates associated with the removal of various observations,

Figure 3. Wald's Confidence Interval for the Admissions Rates Polynomial



the possibility of a curvilinear effect of admissions to prison, in which increases in crime result from higher levels of incarceration, is consistently supported by these data. We found no evidence that high levels of incarceration suppress crime.

DISCUSSION AND CONCLUSION

Our purpose in this analysis was to investigate Rose and Clear's (1998a) hypothesis of the neighborhood-level impact of high rates of incarceration on crime. Our data are insufficient to provide a complete test of the model. To do so would require data from multiple time points (not currently available to us) tested in a causal model.¹³ We believe, however, that the models we present are conceptually consistent with Rose and Clear's nonrecursive model because they include a variable commonly thought of as a policy response to crime rather than as an indicator of crime.

Given our data, we chose a partial test of the model, in which we investigated the effect of admissions and releases on crime, net of some of the other factors that are thought to influence crime at the ecological level. This approach enabled us to provide a conservative appraisal of the argument that high incarceration rates may contribute to crime. Our test is conservative in the sense that if incarceration *does not* behave in the way Rose and Clear proposed, then our models would find no impact of incarceration, after appropriate statistical controls. Our analysis revealed that increasing admissions to prison in one year have a negligible effect on crime at low levels and a negative effect on crime the following year when the rate is relatively low, but, after a certain concentration of residents is removed from the community through incarceration, the effect of additional admissions is to increase, not decrease, crime. This finding lends support to Rose and Clear's hypothesis that removing a high concentration of offenders from the community has a destabilizing effect on the community's level of social disorganization. It also lends support to the idea of a tipping point, at which the size and direction of effects change.

The analysis also showed a strong, positive effect of releasing offenders into the community in one year on crime the following year. Undoubtedly, one interpretation of this finding would follow routine-activities theory (Cohen & Felson, 1979), that releasing ex-

¹³ Data limitations make it impossible to estimate either structural equation models or 2SLS models, since both would require having incarceration data that precede the census variables in time. It is not consistent with the proposed theory to model incarceration as a mediating factor between the ecological variables (poverty, mobility, ethnic heterogeneity) and crime. The addition of 2000 census data would more closely fit the current demographics of the neighborhood, but would be measures that follow, not precede, the data on incarceration and crime.

offenders into the community increases the number of offenders in the community and that an increase in crime is, therefore, not surprising. Another interpretation, consistent with the social disorganization framework we used, is that releases are people whose arrival in the community constitutes a challenge to the community's capacity for self-regulation. Taken together, the combined effects of coercive mobility, concentrated at high levels within certain neighborhoods, constitutes a potentially profound challenge to public safety.

Although tentative, we believe our findings have important implications both for theorists and policy makers. Hence, we discuss these implications separately.

Implications for Theory

Recent advances in social disorganization theory have helped to update our understanding of the contemporary components of social disorganization and the ways in which urban areas have changed since the first exposition of these ideas in the 1940s. With few exceptions, however, researchers have conceptualized the social disorganization model as recursive, that is, ecological factors influence disorganization, which, in turn, influences crime. Public policies, when they are entertained, are thought of as responses to crime.

Social disorganization theorists have overlooked the effects of public policies on community life. Our data suggest that those who are interested in testing social disorganization theory should consider more closely the impact of public policies on community structure. In particular, we believe that including the effects of coercive mobility produced by state policy will help theorists better understand mechanisms of disorganization working in the community by providing a deeper appreciation of the ways in which concentrated mobility destabilizes community life.

Indeed, recent studies that have tested social disorganization theory have highlighted why it is essential to consider the importance of public policies, in general, and the policy on incarceration, in particular. First, Silver (2000) showed that community context is important in explaining the variation in violence among people with mental illnesses because neighborhood disadvantage is positively related to violence for mentally ill people. His study, following the work of Cullen (1994) and Lin (1986), considered the importance of social supports and assessed how social disorganization may condition the availability of those supports. Although he found that individual social supports did not mediate the impact of

neighborhood disadvantage on violence, Silver did find that neighborhood disadvantage was negatively related to the number of social supporters available and was positively related to individual violence.

In a direct test of the impact of high levels of criminal justice activity on a neighborhood's capacity for informal social control, Lynch, Sabol, Planty, and Shelley (2001) found that upper ranges of arrest and incarceration seemed to decrease confidence in formal criminal justice and adversely affect elements of collective efficacy, leading to higher rates of crime. Their results for a national sample of census areas are consistent with the data we presented here for Tallahassee. If the results of these studies withstand replication, incarceration will be shown to be a significant factor that increases neighborhood disadvantage, thereby potentially indirectly influencing violence. In addition, incarceration is a factor that directly influences both the quality of social supports and the level of anger and violence in the community (Rose et al., 2000).

That levels of public social control may be important in their own right was suggested by the results of a study by Wikstrom and Loeber (2000) that the level of neighborhood disadvantage was not, in itself, a determinant of age of onset or level of delinquent offending, once individual risk factors (especially protective factors, such as parental supervision) were controlled. Yet the results of this and other studies of the impact of formal social control on children (for reviews, see Eddy & Reid, 2002; Parke & Clarke-Stewart, 2002) suggest that the criminal justice system may be one of the very forces that, in high quantities, destabilizes some of the protective factors available to young people in poor communities.

The concept of tipping points also has important theoretical implications. Social disorganization theorists have generally assumed a linear relationship between the ecological factors that influence disorganization and the effects of disorganization. This study has shown that, at least with regard to admissions to prisons, the effects on the community at low levels are different from the effects at high levels. Although policy would theorize a linear negative relationship between admissions and crime, a simple linear term in the model would have indicated a strong, positive relationship between the two variables because of the strength of the positive effect in high-incarceration neighborhoods. This study has shown that a linear model would have been incorrect. A nonlinear approach may be appropriate for modeling other ecological determinants of disorganization, too.

The tipping point shows that there may well be a qualitative difference between highly disorganized areas and other areas with

lower levels of disorganization. In this case, neighborhoods with high levels of admissions and high levels of releases were significantly more likely to suffer from crime because at high levels, both variables had a strong positive effect on crime, whereas at lower levels, the two variables had opposing effects. Thus, high-incarceration neighborhoods are different from low-incarceration neighborhoods. The concept of a tipping point may help incorporate work on social disorganization with that being done on the urban underclass.

Implications for Policy

One of the most important advances in work on poverty and crime has been the identification and exploration of the urban underclass (W. J. Wilson, 1987, 1996). This group is depicted as living amid multigenerational, entrenched poverty and in isolation from standard economic, political, and social forces. Most large cities in the United States have residential areas that are almost wholly occupied by the urban underclass. These places tend to be comprised of concentrations of people of color living in subsidized housing on chaotic, tough streets dominated by high levels of unemployment. In these areas, many of the basic institutions have failed: Families are broken and residents are often isolated from mainstream social institutions. Those who live in these areas are stuck in their locations, unable to relocate because of abject poverty and residential segregation (Massey, 1990; Massey & Denton, 1993).

The result of an emergent underclass is a kind of permanent system of urbanized social disorganization for the most destitute areas of inner-city life. In today's world of entrenched poverty, the processes of heterogeneity and mobility may no longer work as they once did. It is not surprising that empirical tests of social disorganization theory bear this point out when they find inconsistent support for the main tenets of the theory. The inner-city areas that are dominated by the underclass have the greatest levels of crime, as well as little racial heterogeneity and little outward mobility. They also have the greatest concentrations of cycling into and out of prison, and our data suggest that these processes of coercive mobility compound problems of informal social control for the neighborhoods that start out with depleted collective efficacy.

The implications of this situation for policy makers and practitioners are troubling. There is broad familiarity with and popular support for the conventional argument that increases in imprisonment lead to decreases in crime through incapacitation and deterrence (DiIulio & Piehl, 1991; Reynolds, 1991). Recently, a softer version of this argument has received attention, that increases in

formal social control that are directed at reducing "incivilities" and "broken windows" disorder result in reduced criminality because residents are encouraged to "take control" of public space and join together to regulate the places where they live (Kelling & Coles, 1997; Skogan, 1990; J. Q. Wilson & Kelling, 1982). This stream of research tends to support the contemporary policy of growth in formal social control as a means of augmenting informal social control, for it has as the centerpiece the removal of offenders from their neighborhoods. Although this line of argument enjoys considerable popular appeal and policy support, studies of neighborhoods in Baltimore (Taylor, 2000) and Chicago (Sampson and Raudenbush, 1999) have questioned the role of incivilities and broken-windows factors in crime rates and found considerable support for structural factors, including traditional social disorganization factors, instead. Regarding incivilities and broken windows, the jury is still out.

Our data are in accord with the contrasting body of research that shows that growing formal social control has a negative impact on the capacity for informal social control, especially when that growth is concentrated among certain groups. For example, Sampson and Bartusch (1999) found that blacks were more likely than whites to view legal norms as not legally binding and to be dissatisfied with the police. These differences disappeared when community context was taken into account. It follows, then, that this attitude among blacks arises because they are more likely to live in places where disadvantage is concentrated and where the growth in formal social control has been most apparent. These neighborhoods, in turn, produce high levels of legal cynicism and dissatisfaction with the police. It seems fair to conclude that those who are cynical about the law and the police will be less inclined to perform effective roles of informal social control. Another study found that among those who personally know someone who has been incarcerated, a negative attitude toward formal control is associated with a negative attitude toward informal social control, as well (Rose & Clear, 1998b).

The concentration of growing formal social control has ripple effects not just for peoples' attitudes, but for their life prospects. Western and Becket's (1999) study of incarceration and unemployment found that although growing levels of incarceration initially resulted in lower rates of conventional measures of unemployment, the recycling of these ex-offenders back into the job market with reduced job prospects had the effect of increasing unemployment in the long run. The concentration of residents with poor job prospects in certain high-unemployment areas has been shown to correlate with higher crime in these areas (Crutchfield & Pitchford, 1997).

These residents, many of whom may be hampered by criminal records, struggle to obtain good jobs. But they have a leg up compared to recently released offenders, for whom employment is typically a crucial concern. Seen in this context, it is easy to understand why our data show that *both* removal and return rates are hazards for these communities. Those in reentry need to be reintegrated somehow into the community, but the strains they pose for resources of informal social control, such as family or employment, constitute a force that tends to increase social disorganization. Even if these offenders are disinclined to commit crimes, there may still be a destabilizing effect from their mobility that increases the crime rate even further.

Thus, policy makers who are used to thinking about ways to expand the potency of the state in these multiproblem communities must consider the long-term implications of this trend. If we are correct that coercive mobility in and out of prison is disorganizing at the community level when it occurs at high rates, then today's penal policy that emphasizes ever-increasing rates of incarceration can be counterproductive. We do not pretend that there are no benefits to removing criminally active residents from their neighborhoods. But our data are consistent with the growing literature that has found that an overuse of incarceration can pose problems for those neighborhoods and leave deficits that are experienced by those who remain in them. And whatever the effects of the removal of offenders, the offenders eventually return, and their return poses a set of problems at the neighborhood level that is the natural consequence of their removal in the first place (Travis, Solomon, & Waul, 2001). The problem of concentrated criminal-justice effects has led some observers (Clear & Cadora, 2003) to argue for neighborhood-based community-justice strategies that focus on building collective efficacy and community capacity, rather than merely arresting and processing residents through the criminal justice system.

There is, of course, a need for further research. Our data about Tallahassee challenge the typical conceptions of social disorganization theory and social control policy. But the sample was small and limited to a small number of neighborhoods in one city, and the statistical analysis was complex. New studies in additional areas will help to clarify the problematic nature of the impact of coercive mobility on crime and, ultimately, on neighborhood life.

REFERENCES

- Bellair, P. E. (1997). Social interaction and community crime: Examining the importance of neighbor networks. *Criminology*, 35, 677-704.
- Bellair, P. E. (2000). Informal surveillance and street crime. *Criminology*, 38, 137-170.
- Bonczar, T. P., & Beck, A. J. (1997). *Lifetime likelihood of going to state or federal prison*. Washington, DC: Bureau of Justice Statistics.
- Bursik, R. J., Jr. (1986). Ecological stability and the dynamics of delinquency. In A. J. Reiss, Jr., & M. Tonry (Eds.), *Communities and crime* (pp. 35-66). Chicago: University of Chicago Press.
- Bursik, R. J., Jr. (1988). Social disorganization and theories of crime and delinquency: Problems and prospects. *Criminology*, 26, 519-551.
- Bursik, R. J., Jr., & Grasmick, H. G. (1993). *Neighborhoods and crime: The dimensions of effective community control*. Lexington, MA: Lexington Books.
- Center for Alternative Sentencing and Employment Services. (1998). *Community justice centers: A proposal to the Open Society Institute*. New York: Author.
- Clear, T. R., & Cadora, E. (2003). *Community justice*. Belmont, CA: Wadsworth.
- Cohen, L., & Felson, M. (1979). Social change and crime rate trends. *American Sociological Review*, 44, 588-605.
- Crutchfield, R. D. (1989). Labor stratification and violent crime. *Social Forces*, 68, 489-512.
- Crutchfield, R. D., Geerken, M. R., & Gove, W. R. (1982). Crime rate and social integration: The impact of metropolitan mobility. *Criminology*, 20, 467-478.
- Crutchfield, R. D., & Pitchford, S. R. (1997). Work and crime: The effects of labor stratification. *Social Forces*, 76, 93-118.
- Cullen, F. T. (1994). Social support as an organizing concept for criminology: Presidential address to the Academy of Criminal Justice Sciences. *Justice Quarterly*, 11, 527-559.
- DiIulio, J., & Piehl, A. M. (1991, Fall). Does prison pay? *The Brookings Journal*, 28-35.
- Eddy, M., & Reid, J. (2002, January 30). *Adolescent children of incarcerated parents*. Paper presented to the National Policy Conference, From Prison to Home: The Effect of Incarceration and Reentry on Children, Families, and Communities, U.S. Department of Health and Human Services and the Urban Institute, Bethesda, MD.
- Hammitt, T. M. (2000, October 13). *Health-related issues in prisoner reentry to the community*. Paper presented to the Urban Institute Reentry Roundtable, Washington, DC.
- Hunter, A. J. (1985). Private, parochial and public social orders: The problem of crime and incivility in urban communities. In G. D. Suttles & M. N. Zald (Eds.), *The challenge of social control: Citizenship and institution building in modern society* (pp. 230-242). Norwood, NJ: Ablex.
- Iverson, G. (1996). *Calculus* (Quantitative Applications in the Social Sciences, Vol. 110). Newbury Park, CA: Sage.
- Kelling, G. L., & Coles, C. B. (1997). *Fixing broken windows*. New York: Free Press.
- Lin, N. (1986). Conceptualizing social support. In N. Lin, A. Dean, & W. M. Ensel (Eds.), *Social support, life events and depression* (pp. 153-170). Orlando, FL: Academic Press.
- Lynch, J. P., & Sabol, W. J. (1992, November 5). *Macro-social changes and their implications for prison reform: The underclass and the composition of prison populations*. Paper presented to the American Society of Criminology, New Orleans.
- Lynch, J. P., & Sabol, W. J. (1996, August). *Did getting tougher on crime pay?* (Crime policy report). Washington, DC: Urban Institute State Policy Center.
- Lynch, J. P., & Sabol, W. J. (2002). Assessing the longer-run consequences of incarceration: Effects on families and employment. In D. F. Hawkins, S. Myers, & R. Stone (Eds.), *Crime control and criminal justice: The delicate balance*. Westport, CT: Greenwood Press.
- Lynch, J. P., Sabol, W. J., Planty, M., & Shelley, M. (2001). *Crime, coercion and community: The effects of arrest and incarceration policies on informal social*

- control (report to the National Institute of Justice). Washington, DC: Urban Institute Justice Policy Center.
- Maltz, M. (1994). Deviating from the mean: The declining significance of significance. *Journal of Research in Crime and Delinquency*, 31, 434-463.
- Markowitz, F., Bellair, P., Liska, A., & Liu, J. (2001). Extending social disorganization theory: Modeling the relationship between cohesion, disorder and fear. *Criminology*, 39, 293-320.
- Massey, D. S. (1990). American apartheid: Segregation and the making of the underclass. *American Journal of Sociology*, 96, 329-357.
- Massey, D. S., & Denton, N. (1993). *American apartheid: segregation and the making of the underclass*: Cambridge, MA: Harvard University Press.
- Meares, T. L. (1998a). Place and crime. *Chicago Kent Law Review*, 73, 669-705.
- Meares, T. L. (1998b). Social disorganization and drug law enforcement. *American Criminal Law Review*, 35, 191-227.
- Morenoff, J. D. & Sampson, R. J. (1997). Violent crime and the spatial dynamics of neighborhood transition: Chicago, 1970-1990. *Social Forces*, 76, 31-64.
- Morenoff, J. D., Sampson, R. J., & Raudenbush, S. W. (2001). Neighborhood inequality, collective efficacy, and the spatial dynamics of urban violence. *Criminology*, 39, 7-560.
- Myers, S. L. (2000, August 12). *The unintended impacts of sentencing guidelines on family structure*. Paper presented at the annual meeting of the American Sociological Association, Washington, DC.
- Neter, J., Kutner, M. H., Nachtsheim, C., & Wasserman, W. (1996). *Applied linear statistical models* (4th ed). Homewood, IL: Richard D. Irwin.
- Osgood, W. (2000). Poisson-based regression analysis of aggregate crime rates. *Journal of Quantitative Criminology*, 16, 21-43.
- Parke, R., & Clarke-Stewart, A. (2002, January 30). *Effects of parental incarceration on young children*. Paper presented to the National Policy Conference, From Prison to Home: The Effect of Incarceration and Reentry on Children, Families, and Communities, U.S. Department of Health and Human Services and the Urban Institute. Bethesda, MD.
- Petersilia, J. (2000, October 12). *Prisoners returning to communities: Political, economic, and social consequences*. Paper presented at the Urban Institute Reentry Roundtable, Washington, DC.
- Putnam, R. D. (1993). *Making democracy work: Civic tradition in modern Italy*. Princeton, NJ: Princeton University Press.
- Raudenbush, S., & Sampson, R. J. (1999). "Ecometrics": Toward a science of assessing ecological settings, with applications to the systematic observation of neighborhoods. *Sociological Methodology*, 29, 1-41.
- Reynolds, M. (1991, February). *Crime in Texas* (NCPA policy report 102). Dallas: National Center for Policy Analysis.
- Rose, D. R., & Clear, T. R. (1998a). Incarceration, social capital, and crime: Implications for social disorganization theory. *Criminology*, 36, 441-480.
- Rose, D. R., & Clear, T. R. (1998b, April 2-4). *Who doesn't know someone in jail? The impact of exposure to prison on attitudes of public and informal control*. Paper presented at the annual meeting of the Southern Sociological Society, Atlanta.
- Rose, D. R., Clear, T. R., & Ryder, J. A. (2000, September). *Drugs, incarceration and neighborhood life: The impact of reintegrating offenders into the community* (Final report to the National Institute of Justice). New York: John Jay College of Criminal Justice.
- Rountree, P. W., & Warner, B. D. (1999). Social ties and crime: Is the relationship gendered? *Criminology*, 37, 789-814.
- Sampson, R. J. (1985). Neighborhoods and crime: The structural determinants of personal victimization. *Journal of Research in Crime and Delinquency*, 22, 7-40.
- Sampson, R. J. (1991). Linking the micro- and macro-level dimensions of community social organization. *Social Forces*, 70, 43-64.
- Sampson, R. J., & Bartusch, D. J. (1999, June). Attitudes toward crime, Police, and the law: Individual and neighborhood differences. *National Institute of Justice Research Preview*.
- Sampson, R. J. & Groves, W. B. (1989). Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology*, 94, 774-802.
- Sampson, R. J., & Raudenbush, S. (1999). Systematic social observation of public spaces: A new look at disorder in urban neighborhoods. *American Journal of Sociology*, 105, 603-651.

- Sampson, R. J., Raudenbush, S., & Earls, F. B. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, 277, 918-924.
- Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas*. Chicago: University of Chicago Press.
- Silver, E. (2000). Extending social disorganization theory: A multilevel approach to the study of violence among persons with mental illnesses. *Criminology*, 38, 1043-1074.
- Skogan, W. (1990). *Disorder and decline: Crime and the spiral of decay in American neighborhoods*. New York: Free Press.
- Taylor, R. B. (2000). *Breaking away from broken windows: Baltimore neighborhoods and the nationwide fight against crime, grime, fear and decline*. Boulder, CO: Westview Press.
- Travis, J., Solomon, A. L., & Waul, M. (2001). *From prison to home: The dimensions and consequences of prisoner reentry*. Washington, DC: Urban Institute.
- U.S. Bureau of the Census. (n.d.). *1990 census summary tape file 1 (STF1a)*. Washington, DC: Author.
- Velez, M. B. (2001). The role of public social control in urban neighborhoods: A multilevel analysis of victimization risk. *Criminology*, 39, 837-864.
- Warner, B. D., & Pierce, G. L. (1993). Reexamining social disorganization theory using calls to the police as a measure of crime. *Criminology*, 31, 493-517.
- Western, B., & Beckett, K. (1999). How unregulated is the U.S. labor market? The penal system as a labor market institution. *American Journal of Sociology*, 104, 1030-1060.
- Wikstrom, P. H., & Loeber, R. (2000). Do disadvantaged neighborhoods cause well-adjusted children to become adolescent delinquents? A study of male juvenile serious offending, individual risk and protective factors, and neighborhood context. *Criminology*, 38, 1109-1142.
- Wilson, J. Q., & Kelling, G. L. (1982). Broken windows: The police and neighborhood safety. *Atlantic Monthly*, 249, 29-48.
- Wilson, W. J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy*. Chicago: University of Chicago Press.
- Wilson, W. J. (1996). *When work disappears: The world of the new urban poor*. New York: Alfred A. Knopf.

Appendix. Correlations, Means, and Standard Deviations for all Variances

	1.	2.	3.	4.	5.	6.	7.	8.	9.	Mean	Standard Deviation
1. Crime rate 97	1.00									5.554	5.160
2. Concentrated disadvantage	.335**	1.00								0.00	
3. % mobility	.238*	.115	1.00							65.126	19.352
4. Admissions	.610***	.552***	-.107	1.00						0.164	0.319
5. Admissions ²	.628***	.265*	.019	.907***	1.00					0.127	0.499
6. Admissions ³	.614***	.180	-.004	.802***	.975***	1.00				0.163	0.931
7. Releases	.609***	.658***	-.089	.834***	.660***	.537***	1.00			0.261	0.383
8. Crime rate 96	.420***	.325***	.171	.568***	.535***	.508***	.574***	1.00		0.065	46.36
9. Ln population	.322**	.080	.175	.029	-.352**	-.355**	-.186	-.456***	1.00	7.069	0.528
10. Ln crime rate 97	.659***	.416***	.271*	.446***	.333**	.311**	.513***	.712***	-.361	-3.238	0.880

* $p < .05$, ** $p < .01$, *** $p < .001$.

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