Effects of Imprisonment and Community Supervision on Neighborhood Political Participation in North Carolina

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Source: *The Annals of the American Academy of Political and Social Science*, Vol. 651, Detaining Democracy? Criminal Justice and American Civic Life (January 2014), pp. 184-201

Published by: Sage Publications, Inc. in association with the American Academy of Political and Social Science

Stable URL: http://www.jstor.org/stable/24541701

Accessed: 26-02-2018 19:53 UTC

This article considers the effect of prison, probation, and parole on neighborhood political participation in North Carolina. I analyze data from state boards of elections, departments of corrections, departments of public health, the Census Bureau, and market research firms for 2000 and 2008. Multivariate regressions reveal a complex relationship between criminal justice supervision and voter turnout. The evidence suggests that at the individual level and in the aggregate, the criminal justice system shapes neighborhood political participation.

Keywords: criminal justice; voting behavior; prison; felon disfranchisement

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By
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As noted in the introduction to this volume, the growth of the criminal justice system represents a significant policy development in the United States. However, to date, only a few studies have tried to estimate the effects of the criminal justice system on political participation (but see Lerman and Weaver in this volume for a notable exception). Those that have done so focus on the direct impact of convictions or disfranchisement on ex-felons' political activity (Burch 2011, 2012; Manza and Uggen 2004, 2006; Miles 2004). Michelle Alexander, for instance, argues that "a racial caste system has developed" because of the exclusion ex-felons face, many of whom are black, from political, social, and economic life (Alexander 2011). However, most political scientists would argue that, while alarming, a system that affects only 3 percent of adults should have little effect on political outcomes in any real sense.

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DOI: 10.1177/0002716213503093

The focus on the impact of convictions and disfranchisement on felons ignores other consequential ways in which the criminal justice system affects politics. The criminal justice system has the power to shape not only the political participation of current and former felons but also the participation of the people who live around them because criminal justice interactions are demographically and geographically concentrated. What appears to be a small percentage of adults nationally often represents a high percentage of residents in many neighborhoods; this article shows that because of the concentration of convictions within these geographically bounded spaces, in some instances more than 10 percent of residents of disadvantaged communities can be in prison, on probation, or on parole at any given time (see online appendix). The consensus among anthropologists and sociologists is that the criminal justice system can detrimentally affect neighborhood life by increasing crime, poverty, teenage motherhood, contagious diseases, and other social ills (Bursik and Grasmick 1993; Hammett, Harmon, and Rhodes 2002; Rose and Clear 1998). Might the criminal justice system have similar effects on political participation?

The project discussed here departs from previous research by focusing on concentration effects as the central mechanism through which individual experiences with criminal justice shape the political activities and attitudes of entire communities. This article presents an overview of this larger project and considers the effect of prison, probation, and parole on political participation for just one state, North Carolina, at the neighborhood level.[1] I measure the prevalence of imprisonment and community supervision and relate their spatial concentration to aggregate voter turnout for 5,000 North Carolina neighborhoods for the 2008 General Election.[2] I also present evidence on the effects of neighborhood imprisonment and community supervision on voter registration and turnout, political activities, group membership, and volunteering for individuals living in Charlotte, North Carolina, for the 2000 General Election. Key to the strength of this enterprise are individual-level data on turnout, imprisonment, probation, parole, crime, and other demographic factors collected from state boards of elections, departments of corrections, departments of public health, the Census Bureau, and market research firms for 2000 and 2008.

The data indicate that in disadvantaged neighborhoods in North Carolina, the spatial concentration of imprisonment far exceeds the national average concentration of .456 prisoners per square mile. In the block groups in this study, imprisonment density, or prisoners per square mile, ranges from no prisoners to 260 prisoners. Likewise, community supervision density ranges from no probationers or parolees to 330 probationers and parolees per square mile. These high spatial concentrations reflect the fact that residents of disadvantaged neighborhoods experience imprisonment and community supervision at high rates.

Analyzing these data with multivariate regression reveals a complex relationship between the overall supervision density and voter turnout at the aggregate level. It is clear that at high concentrations, imprisonment and community supervision have an unequivocally demobilizing effect on neighborhoods. In North Carolina, block groups with the maximum concentration of offenders under supervision are expected to vote at a rate of 55.96 percent, a rate that is almost 8

percentage points lower than that of block groups without any prisoners, probationers, or parolees, even after holding constant factors including race, residential mobility, poverty, crime, county, and citizenship. However, at lower concentrations, the relationship between supervision density and voter turnout differs. In North Carolina, supervision seems to have a curvilinear relationship with turnout, such that at low levels, imprisonment and community supervision seem to help turnout, increasing it by up to 5 percentage points before it begins to have a detrimental effect.

Estimates produced from the individual-level data confirm that people living in neighborhoods with the highest imprisonment and community supervision rates are 50 percent less likely to vote than individuals living in neighborhoods with no prisoners. The effects of imprisonment are not limited to voter turnout, however; people who live in high-imprisonment neighborhoods are also 38.4 percent less likely to undertake other civic and political activities such as signing petitions and protesting, and they volunteer 65 percent less a year.

The finding that criminal justice matters so much to political participation makes several important contributions to the study of political behavior and race politics. As noted above, sociologists have studied the impact of criminal convictions on phenomena other than political behavior, such as families, social disorganization, and crime rates, for decades (Braman 2002; Edin, Nelson, and Paranal 2004; Foreman 2002; Holzer, Rafael, and Stoll 2004; Sampson and Groves 1989). Perhaps the most important contribution of this project is to introduce the criminal justice system as an increasingly important aspect of neighborhood context that needs to be studied by political scientists. As this article shows, the criminal justice system affects black and poor neighborhoods detrimentally. Exploring the effects of these patterns of inequality will become increasingly important to understanding the quality of representation and democratic inclusion experienced by residents of disadvantaged communities relative to other people.

The "Neighborhood Effects" of Criminal Justice, Political Participation, and Prior Research

A variety of factors influence citizen participation in politics. As Verba and Nie (1972) argue, citizen participation is a function of individual social circumstances (such as age and race), attitudes (such as efficacy and group consciousness), and mobilization by voluntary associations or political parties. However, political scientists have always recognized that "external social factors," or context, also matter for political behavior (Burbank 1997; Campbell et al. 1960; Foldare 1968; Huckfeldt 1979). While Verba and Nie primarily test whether the size of the polity itself decreases participation, other factors such as voting registration rules and other institutional barriers vary across localities and may also affect participation rates (Nagler 1991; Piven and Cloward 2000; Wolfinger and Rosenstone 1980).

This article adds the geographic concentration of criminal justice interactions to this list of ways in which where a person lives can affect his or her political participation. There is evidence that experiences with prison, probation, and parole are concentrated not only within certain social groups but also in particular communities. For instance, incarceration rates vary across neighborhoods throughout New York City (Fagan, West, and Holland 2004). In Brooklyn, "eleven percent of the block groups in that borough . . . account for 20 percent of the population, yet they are home to 50 percent of the parolees" (Travis 2004, 252). In Cuyahoga County, Ohio, less than 1 percent of the county's block groups account for 20 percent of the county's prisoners (Travis 2004, 252). Also at the local level, Lynch et al. (2002) find evidence of clustering of incarceration in Baltimore (see also Lynch and Sabol 2004).

In thinking about the ways in which such high concentrations of interactions with the criminal justice system can affect individual outcomes, it may be useful to "distinguish the effects of neighborhoods from the effects of neighbors" (Mayer and Jencks 1989, 1442). That is, one should differentiate between contextual effects, which are based on the characteristics of an area's structural or institutional environment; and concentration effects, which result from having a large number people with similar personal characteristics in a single area or demographic group (Johnson, Shively, and Stein 2002). The concentration and contextual effects associated with the criminal justice system are many and varied. First, with respect to concentration effects, "disadvantaged neighbors are a disadvantage," as Mayer and Jencks (1989) so succinctly stated, and it is difficult to find neighbors more disadvantaged than those who are current and former offenders. To be sure, people convicted of crimes tend to have access to fewer resources than the rest of the population, even prior to being convicted of crimes. However, as noted elsewhere, felons are physically and psychically excluded from social, economic, and political life through the actions of the state (Alexander 2011; Burch 2007). Having a high concentration of convicted offenders in a neighborhood means having a large number of these individuals who share a problematic relationship with the state in one space. Such concentration effects may alter the behavior and attitudes of other neighborhood residents. For instance, neighborhoods that have fewer politically active members as role models may fail to transmit norms of participation effectively even to enfranchised residents because people tend to "learn the community's participatory values as they observe ample instances of engagement among their family members and peers" (Tam-Cho, Gimpel, and Dyck 2006, 156; Campbell et al. 1960). Spouses of convicted offenders also miss out on the participatory effects of having a partner that votes or participates in other ways (Campbell et al. 1960; Straits 1990). These effects might be further exacerbated by the experience and appearance of injustice or unfairness in the criminal justice system (Tyler and Huo 2002).

These concentration effects, in turn, reinforce aspects of the neighborhood structural and institutional context that might further decrease participation. Communities pay an economic and social price for having a large proportion of their members, particularly parenting-age males, convicted of felonies each year. The impact of the criminal justice system, particularly imprisonment, on

communities is separate from that of crime and is well documented. Although it seems counterintuitive to suggest that it is "bad for neighborhood life to remove people who are committing crimes," it may not be the case that arresting, convicting, and punishing offenders will increase safety by incapacitating criminals (Rose and Clear 1998). First, it often is the case that people who commit crimes "contribute both positively and negatively toward family and neighborhood life" (Rose and Clear 1998, 441–42). Convicting these individuals or removing them from the community may help to eliminate the scourge of crime at the cost of breaking up families (Edin, Nelson, and Paranal 2004). Often, people convicted of crimes have both legitimate and illegitimate sources of income that they use to support their families (Braman 2002). Imprisoning people prevents them from contributing to family and community upkeep altogether during the course of their sentence, thus increasing neighborhood and family poverty.[3] Felony convictions may affect voter mobilization; parties, interest groups, and campaigns are more likely to reach out to registered voters and are less likely to contact households where voters have been removed from the registration rolls because of a felony conviction (Huckfeldt and Sprague 1992). Finally, imprisonment especially has been shown to increase neighborhood social disorganization. Disorganized communities cannot exert informal controls over their members because they lack informal ties such as friendships and formal social ties such as stable families that help to socialize people into desirable behavior such as political participation (Bursik and Grasmick 1993; Kornhauser 1978; Sampson 1988; Shaw and McKay 1942).

Measuring Imprisonment and Community Supervision in 2008

The analysis uses the author's Neighborhood Criminal Justice Involvement Data. As a reminder, block groups constitute neighborhoods throughout this article. Estimates for the 2008 demographic characteristics of block groups were obtained from Scan/US and Geolytics. Three hundred twenty-six block groups were excluded from the data because they contained a large number of ineligible adults based on the group quarters and citizenship measures, because the number of voters exceeded the estimated adult population size due to errors in the population estimates, or because they contained no household populations (either no people or all members in group quarters).

Department of Correction data

The North Carolina Department of Correction provided de-individuated data on the race, gender, offense, age, sentence length, punishment type, and address for all individuals under state supervision for felonies as of October 8, 2008 (that state's voter registration closing date that year).[4] The Department of Correction data, along with supplementary information from other agencies, were used to construct several measures of the criminal justice context at the neighborhood

level. The most important variable, *supervision density*, measures the spatial concentration of people serving time in prison from the neighborhood and people serving probation and parole sentences in the neighborhood at the close of voter registration. This variable is constructed as the number of prisoners, probationers, and parolees per square mile.

Statewide data on all crimes are not collected at the block group level. Data on 2000 and 2008 homicides were obtained from the North Carolina Department of Public Health. The *homicide rate* for each block group is defined as the number of fatal intentional injuries sustained among residents living in the block group, divided by the block group adult population. One might think of the homicide rate as a purer measure of violent crime, as homicides are not usually subject to reporting or other biases (Levitt 2004).[5]

Ex-felons deserve special discussion because failing to control for the presence of ex-felons in a community might confound the results. However, administrative data on former offenders are difficult to obtain. Because of these difficulties, the dataset includes a measure of institutions that are likely to attract released prisoners and other ex-felons. This measure of *ex-felon-serving institutions* is a dummy variable that indicates whether the block group is located within half a mile of a halfway house, residential reentry center, transitional facility, or other nonprofit group whose primary mission is to provide housing, training, or services to ex-felons. This indicator was constructed using the Federal Bureau of Prisons list of residential reentry centers, departments of corrections lists of transitional centers, and the IRS Master List of Exempt Organizations. Though this variable accurately flags neighborhoods with structures that continually house ex-offenders, this variable may not identify all neighborhoods with high ex-offender populations.

Geocoding

Addresses for prisoners, probationers, parolees, ex-felon-serving institutions, and voters were converted to points with latitudes and longitudes and then to census blocks by geocoding with ArcGIS. Ninety-seven percent of North Carolina voters with valid addresses were successfully geocoded. Matching prisoners and probationers to valid addresses was more difficult. About 10 percent of offenders indicated temporary housing (such as a hotel, motel, or shelter), correctional facilities, or the streets as their last known address. Of the remaining prisoners, probationers, and parolees, about 90 percent with valid in-state addresses were geocoded successfully. The remainder includes offenders matched to out-of-state addresses including foreign countries and offenders who provided incomplete information or post office boxes.

Descriptive Findings

The descriptive statistics for each criminal justice supervision measure can be found in the online appendix.[6] The median neighborhood prisoner density for

North Carolina block groups is well above the national average of .456 prisoners per square mile, with a maximum prisoner density of 260 prisoners per square mile. Likewise, the community supervision density in North Carolina block groups is above the national average of 1.42 probationers and parolees per square mile, reaching a maximum of 330 probationers and parolees per square mile.

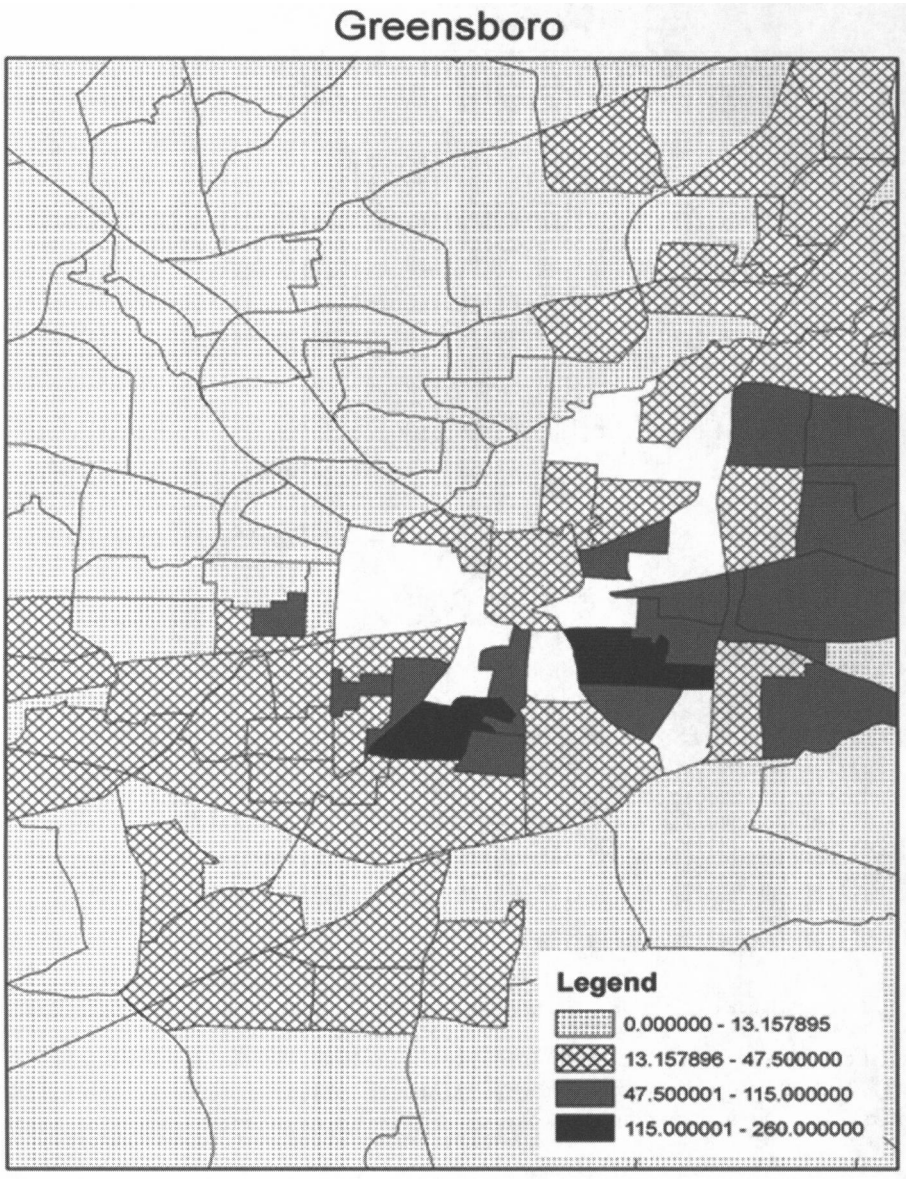
These high spatial concentrations of prisoners and community supervision reflect high concentrations of prisoners, probationers, and parolees demographically. North Carolina's imprisonment rate is only slightly above the national imprisonment rate of 506 per 100,000 adults; however, in one block group, the imprisonment rate reaches nearly 6 percent (West, Sabol, and Greenman 2010). The community supervision rate in North Carolina is lower than the national average of 2.15 percent (Glaze, Bonczar, and Zhang 2010). However, in one block group, more than 8 percent of adults are on probation or parole, nearly four times the national average.

Figures 1 and 2 present maps of community supervision density and imprisonment density for Greensboro, North Carolina. These maps show great variation in both imprisonment and community supervision. In Figure 1, block groups from Greensboro are shaded based on prisoners per square mile, with darker shading representing higher imprisonment densities. Imprisonment is highly concentrated within certain areas of the city. Neighborhoods with high prisoner densities are concentrated far south and east of the city center in Greensboro. Community supervision density varies more than imprisonment density. Figure 2 again depicts block groups in Greensboro, this time shaded by community supervision density. Figure 2 also shows a pattern of concentrated community supervision: all high-probation and high-parole areas in Greensboro are in the southern and eastern parts of the city as well.

Imprisonment is particularly concentrated in black communities, perhaps reflecting crime patterns, but perhaps also reflecting the fact that blacks more often get prison sentences than whites and other groups for similar crimes (Demuth and Steffensmeier 2004). The relationship between race and imprisonment is readily apparent in the map of Charlotte in Figure 3, which depicts imprisonment incidents over 2008 superimposed over block groups that have been shaded by the percent of black residents.

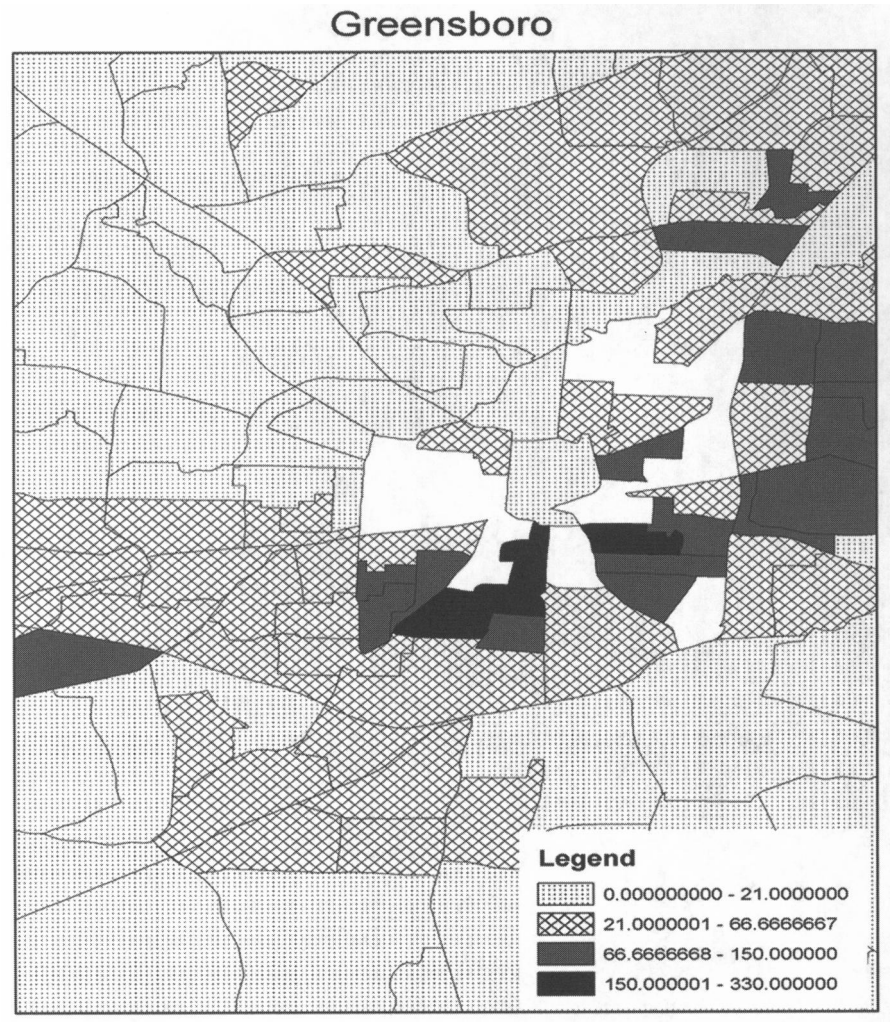
General evidence makes it clear that predominantly black neighborhoods, high-crime neighborhoods, and high-poverty neighborhoods tend to have higher spatial concentrations of imprisonment and community supervision than other neighborhoods. The black percentage of the population is highly correlated with prisoner density and community supervision density (Pearson's R = .510 and .506, respectively). Interestingly, the neighborhood percent Hispanic or Latino is less strongly correlated with prisoner density and community supervision density (Pearson's R = .192 and .234, respectively). The percent of households with incomes under $10,000 is also positively correlated with imprisonment and community supervision, though again not as strongly as race (Pearson's R = .384 and .372, respectively). Homicide rates, as expected, are also positively correlated with imprisonment and community supervision, but less so than race (Pearson's R = .187 and .194, respectively).

FIGURE 1
Imprisonment Density in Greensboro Metro Area, 2008



SOURCE: Neighborhood Criminal Justice Involvement Data.
NOTE: Block groups shown in white were excluded from the data due to a lack of eligible voters or adult population in households.

FIGURE 2
Community Supervision Density in Greensboro Metro Area, 2008

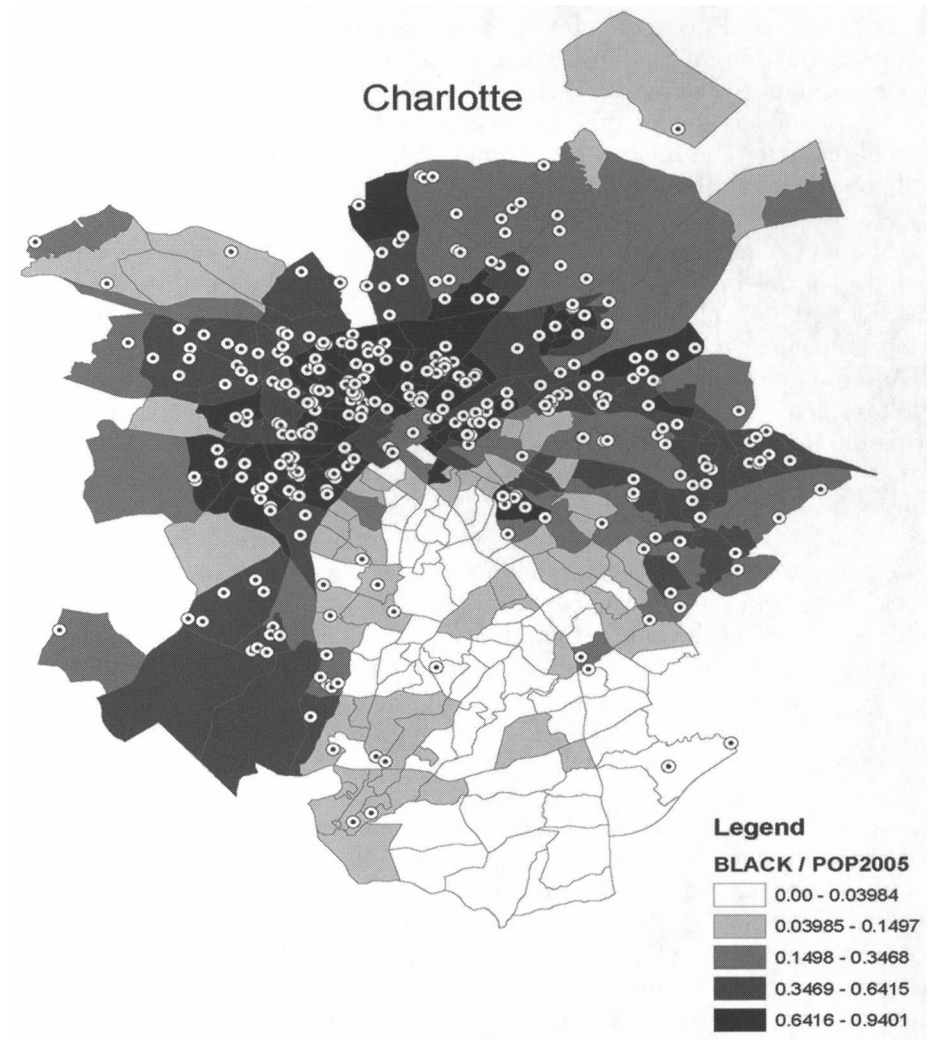


SOURCE: Neighborhood Criminal Justice Involvement Data.
NOTE: Block groups shown in white were excluded from the data due to a lack of eligible voters or adult population in households.

Effects of the Criminal Justice System on Neighborhood Voter Turnout

Subjecting the data described above to multivariate analysis helps to determine whether this clustering of criminal justice involvement at the neighborhood level has any impact on voter turnout. Multivariate analysis is useful because there may

FIGURE 3
Imprisonment and Race by Block Group, Charlotte, North Carolina



SOURCE: Neighborhood Criminal Justice Involvement Data.

be many factors such as the *poverty rate*,[7] *homicide rate, proportion of adults age 34 and under, proportion black, proportion Hispanic*, and *proportion other minority* (Campbell et al. 1960; Cohen and Dawson 1993; Foldare 1968; King, Keohane, and Verba 1994; Mayer and Jencks 1989; Morenoff, Sampson, and Raudenbush 2001; Plutzer 2002; Sampson and Groves 1989; Straits 1990; Verba, Schlozman, and Brady 1995) that are related to both overall supervision density and voter turnout that must be taken into account. To control for the influence

of ex-offenders on turnout, the model identifies block groups with ex-inmate-serving organizations such as halfway houses, residential reentry centers, transitional centers, and other facilities that provide housing, jobs, and other assistance to ex-offenders. Education affects voter turnout at the individual level so Geolytics' measure of the female high school graduation rate is included in the models (Campbell et al. 1960; Verba and Nie 1972; Verba, Schlozman, and Brady 1995). The models include the percent of vacant housing units as a proxy for residential mobility. The relative proportions of U.S. born and naturalized citizens and noncitizens are included in the regressions as well.[8] Furthermore, the presence of college students, nursing home residents, or others in group quarters might affect voter turnout so the percent of the population in group quarters is included in the models. The male-to-female ratio and the relative proportion unemployed are included in the models.[9] Finally, the models also include dummies for counties to control for fixed effects.

As a reminder, the supervision density variable is a measure of the number of adult residents of the block group who were in state prison or on state probation or parole during the 2008 General Election, divided by the area of the block group in square miles. To test for curvilinear effects, the squared supervision density is also included in the models. The dependent variable, voter turnout, was obtained by geocoding the addresses of voters obtained from the North Carolina State Board of Elections and represents the number of people from the block group who voted in the November General Election divided by the 2008 adult population of the block group. Because the dependent variable is bounded on the 0–1 interval, beta regression is used to estimate the effects of supervision density.

The regression results can be found in the online appendix. To summarize these results, in the linear model, the relationship between voter turnout and supervision density is positive and statistically significant in North Carolina.[10] However, in the curvilinear model, the coefficient on the squared term is statistically significant and negative, implying that the effect of overall supervision density on voter turnout differs depending on the level.[11] Further testing reveals that the curvilinear model fits the data better than the simple linear model.[12] The statistical significance of factors such as the presence of young residents, block group educational attainment, race, median income, and ethnicity suggests that these factors still exert a statistically significant residual effect on turnout even after controlling for other factors.[13] Testing the residuals reveals no evidence of spatial autocorrelation.[14]

Curvilinear regression coefficients are not easily interpreted so it is easier to discuss the predicted block group voter turnout by simulating outcomes for different levels of supervision density (King, Tomz, and Wittenberg 2000). At lower concentrations, imprisonment and community supervision have little substantive effect on voter turnout. In North Carolina, going from the bottom of the distribution up to the mean results in a slight increase in voter turnout, about 1 percentage point. Toward the upper end of the distribution, however, the participatory effects are dire, even with all other factors held constant at their means: voter turnout in North Carolina block groups with the maximum concentration of

imprisonment and community supervision, 590 prisoners per square mile, is expected to be 55.96 percent, or about 7.8 percentage points lower than that expected for North Carolina neighborhoods with no prisoners.

Individual-Level Analyses: A Final Test

Given the findings from the previous section, it seems sensible to expect that at the individual level, a person who lives in a neighborhood with a higher spatial concentration of prisoners, probationers, and parolees would be less likely to vote, and maybe even less likely to participate in other forms of political and community activities, than a person who lives in a neighborhood with fewer offenders. This final section undertakes this analysis, translating the turnout patterns observed at the broader block group level into individual political behavior.

This research makes use of the restricted Social Capital Community Benchmark Survey (SCCB) conducted by the Saguaro Seminar at Harvard Kennedy School. This analysis uses the Charlotte-Mecklenburg area sample, which has a sample size of 1,266. However, due to missing data, the final sample size can be as low as 1,037.

For each Charlotte-Mecklenburg respondent, block group characteristics similar to those used in the preceding block group level analyses were added to the data. However, because the respondents were surveyed in 2000, census counts, rather than proprietary estimates, were used to provide data on vacant housing units, percent black, percent Hispanic, median age, percent in group quarters, adult population, block group high school completion rate, citizenship, unemployment rate, median income, and percent receiving public assistance. The block group 2000 homicide rate and information about ex-inmate-serving institutions in 2000 were obtained from the departments of public health in each state and from departments of corrections and the IRS Master List of Exempt Organizations as described for the previous analyses.

The key causal variable, supervision density, was calculated from North Carolina departments of corrections data based on the prison, probation, and parole populations as of November 2000 in that state. This analysis tests the effects of neighborhood supervision density on five measures of individual participation: voter registration, voter turnout, political activities, volunteering, and group membership. Please see the online appendix for question wording and descriptive statistics for these variables.

Methods

Because the voter registration and turnout dependent variables each take on only two values, these relationships are best estimated with logit models. Likewise, the political activities, volunteering, and group membership scales are counts and are best estimated using a negative binomial model. Often, researchers use hierarchical models to analyze nested causal structures such as individuals situated in

neighborhoods. However, in this case, the geographic units contain too few individuals to estimate the fixed effects of different block groups using hierarchical models (Gelman and Hill 2007). Instead, the characteristics of the block groups are included in the models as separate variables.

The model accounts for both individual-level and neighborhood-level influences on these activities. At the individual level, age, race, gender, ideology, educational attainment, political knowledge, political interest, and income are included (Verba, Scholzman, and Brady 1995; Morenoff, Sampson, and Raudenbush 2001; Plutzer 2002; Campbell et al. 1960; Straits 1990). At the neighborhood level, like the previous models, these models also control for median income, percent receiving public assistance, poverty rate, unemployment rate, percent vacant housing units, ex-inmate-serving institutions, homicide rate, median age, citizenship rate, percent black, percent Hispanic, and percent of the population in group quarters.

Results

The results of the individual-level analyses confirm the block group analyses. Individuals are much less likely to participate in politics when they live in high-supervision neighborhoods. The results of the analysis of voter registration, voter turnout, political activities, volunteering, and group involvement can be found in the online appendix.

With respect to voting, the data clearly show the effects of neighborhood criminal justice context on both registration and turnout. The evidence supports the claim that people who live in a high supervision neighborhood are less likely to be registered voters than those who live in lower supervision neighborhoods. The estimate of the effect of supervision density on voter turnout is also negative and statistically significant. This estimated difference is also substantively meaningful; for people living in neighborhoods with more extreme spatial concentrations of prisoners, probationers, and parolees (the maximum in this sample is 276.7 prisoners, probationers, and parolees per square mile), the effects on turnout are dramatic. The probability of voting among people living in block groups with the maximum supervision density declines by 50 percent from the probability of voting among people who live in block groups with no people under criminal justice supervision.

The relationship between the spatial concentration of prisoners, probationers, and parolees and the general political activity scale is also negative and statistically significant. There is a clear, negative effect of supervision density on the number of political activities undertaken by individuals: people are much less likely to engage in multiple forms of participation when they live in high-supervision neighborhoods. An average person living in a block group with no prisoners, probationers, or parolees is expected to undertake about two of the seven political activities in the index, while a person living in a neighborhood with the maximum supervision density (again, 276.7 prisoners, probationers,

and parolees per square mile in this sample) is expected to undertake .76 fewer activities. This difference represents a 38 percent decline in activity.

With respect to civic engagement more broadly, the results for volunteering are also negative and statistically significant. The average person living in a neighborhood with no prisoners is expected to volunteer about 9.5 times in a 12-month period, while the average person living in a neighborhood with the highest prisoner density is expected to volunteer about 3.3 times per year. The results for group membership are not significant at traditional levels ($p = .07$).

Conclusion

The consensus among anthropologists and sociologists is that the concentration of social ills, including punishment, matters for communities (Clear 2007, 2002). As Massey and Denton (1993) argue with respect to neighborhoods, "Identical individuals with similar family backgrounds and personal characteristics will lead very different lives and achieve different rates of socioeconomic success depending on where they reside" (p. 149). While the evidence suggests that this finding is true for crime, poverty, teenage motherhood, and contagious diseases, the political effects of living in a neighborhood where a lot of people have been punished for criminal behavior has been little studied, despite the growth in rates of supervision over the past three decades (see Fagan, West, and Holland [2004] for a notable exception).

This volume continues the important work of thinking about how the criminal justice system matters for democracy, and this particular article explores a small piece of this puzzle—political participation—by clearly showing that living in a neighborhood with a high spatial concentration of prisoners, probationers, and parolees diminishes political participation. At the neighborhood level, the communities with the most extreme concentrations of prisoners have lower voter turnout by nearly 8 percentage points, representing a 12 percent decline in neighborhood voter turnout.[15] In line with Wildeman (this volume) and Lee, Porter, and Comfort (this volume), this analysis suggests that the criminal justice interactions of community members have important spillover effects that suppress participation not only of the supervised individual but also of those living around him or her. The magnitude of the turnout reduction measured at the neighborhood level is too large to attribute to the supervision of only one or two inmates or probationers. Likewise, the demonstrated participatory reduction among people who are not themselves under supervision also supports the claim that these analyses are capturing spillover effects, rather than the primary effect on felons themselves.

Whether this decrease in turnout represents a large or small effect is in the eye of the beholder. It is important to note that only 10,000 or so votes separated Barack Obama and John McCain in the 2008 North Carolina General Election. However, in some sense, the concern over effect sizes is misguided to the extent that any measurable decrease in turnout represents an unfair burden on people

who live in neighborhoods that already are disadvantaged. The criminal justice system denies law-abiding citizens the right to participate on an equal footing with people from neighboring communities with lower criminal justice involvement. Is it fair that the votes of people who live in neighborhoods with or share the same social background of convicted offenders count less than those of the more fortunate citizens who live in other, low-involvement neighborhoods?

Notes

1. For an analysis of multiple states, as well as an analysis of incarceration rather than incarceration and community supervision together, please see Burch (2013).

2. Census block groups.

3. Living in an impoverished neighborhood decreases the probability that a person will belong to a church or other voluntary organization (Cohen and Dawson 1993) or talk about politics, attend public meetings, or give money to candidates (Alex-Assensoh 1997).

4. In 2008, federal courts commenced only 2,437 cases against criminal defendants in North Carolina. See Administrative Office of the United States Courts. 2008. Table E-2, Persons under Supervision. Available from http://www.uscourts.gov/uscourts/Statistics/FederalJudicialCaseloadStatistics/2008/tables/E02Mar08.pdf. By comparison, 80,000 people were admitted to state prison or probation in North Carolina. See Sourcebook on Criminal Justice Statistics, Table 6.3.2006, Available from http://www.albany.edu/sourcebook/pdf/t632006.pdf; Sourcebook on Criminal Justice Statistics, Table 6.0009.2008. Available from http://www.albany.edu/sourcebook/pdf/t600092008.pdf.

5. Tract-level data from Peterson and Krivo's (2010) National Neighborhood Crime Study, 2000, show that in North Carolina, the correlation between the three-year average homicide rate and the three-year average violent crime rate is 0.6183.

6. The Appendix appears online at http://ann.sagepub.com/supplemental.

7. Defined here as the percent of households with incomes under $10,000.

8. These proportions do not sum to 1; they represent the proportion U.S.-born, naturalized, and noncitizen relative to the national average for each block group.

9. There are gender differences in imprisonment that shape the gender ratio of a block group (Braman 2002).

10. Supervision density is weakly positively correlated with voter turnout in the raw data (Pearson's R = .0264). This pattern of results reflects the presence of some low supervision, low turnout neighborhoods that arguably could be excluded from the data. Evaluating each observation for which Cook's d is greater than .005 reveals that these most influential observations are all for neighborhoods with low imprisonment levels and low voter turnout, suggesting that if any outliers are present, the bias causes this analysis to underestimate the effects of prisoner density. Typically, these neighborhoods have some demographic oddity with respect to voting—they have abnormally high vacancy or group quarters rates or a large number of ineligible noncitizens. While the analysis does exclude neighborhoods with the highest levels of these phenomena, the criteria for exclusion were not so strict as to exclude them all. This decision avoids the issue of cherry-picking the data to skew the results in favor of the hypothesis.

11. Coefficients predicted using a hierarchical linear model with random intercepts demonstrate the same sign and statistical significance, although the effect size changes. In the curvilinear model, going from the minimum of 0 prisoners/probationers/parolees per square mile to the maximum of 590 reduces predicted voter turnout from 0.6051 to 0.5592.

12. The log-likelihood increases from 4,306.63 for the linear model to 4,323.370 for the curvilinear model, while the AIC declines from –381.265 for the linear model to –8,412.742 for the curvilinear model.

13. One might notice that several coefficients, at first glance, seem to behave in unexpected ways. While it may be tempting to interpret these coefficients as saying that poverty helps voter turnout, this way of reading the results is incorrect (King 1986). To find the effects of poverty on voter turnout requires a separate theory and analysis (King, Keohane, and Verba 1994). To alleviate the fears that these findings reflect overcontrolling, I have included a correlation matrix of the variables in the online appendix.

14. Moran's I = .00271***.

15. For more information about whether a causal relationship exists between criminal justice and voter turnout, see the natural experiment discussed in Chapter 4 of Burch (2013).

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