Tracking Community-Level Dynamics Associated with Imprisonment and Enlistment

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Since the work of the early Chicago School (Park et al., 1925; Shaw & McKay, 1969), sociologists have recognized the local community as a dynamic social system with important consequences for individual behavior and decision-making. Early formulations of social ecology emphasized characteristics of the physical and social environment as critical for the maintenance or disruption of stable community norms, themselves largely responsible for the incidence of juvenile delinquency, mental health problems, and other signs of social disorder. Population stability and ethnic homogeneity were seen as conducive to social order whereas immigration and residential mobility were viewed as disruptive to the local ecosystem. High levels of population churning were thought to prevent the establishment of stable social relations and the corresponding capacity for informal social control.

As this early wave of immigration and urbanization subsided, the emphasis on community ecology waned in sociology.[2] Recent developments, however, lead us to question whether attention to community dynamics and disruption may once again be instructive. In particular, trends in incarceration and military service over the past two decades have been characterized by significant and geographically targeted population removal and redistribution. In this paper, we consider the community impact of recruitment to prison and the military, focusing on key indicators of neighborhood social demography for clues about their relative stability and organization over time.

Though the military and the prison system are not typically grouped together for analysis, both institutions share certain key characteristics. First, the target populations for both institutions share considerable overlap: prison cells and Army barracks are disproportionately populated by young adult males, disproportionately drawn from African American or working class white communities (Segal and Segal 2004; Pettit and Western 2004). Second, as government institutions, the prison and the military each represent significant state intervention into the lives of private citizens. Third, as residential institutions, both sponsor significant mobility from homes and neighborhoods to concentrated group quarters. Fourth, the primary constituencies of the armed forces and the criminal justice system are drawn from geographically concentrated communities. And fifth, participation in each institution has been associated with various forms of physical and psychological trauma, and high incidence of adjustment problems upon reentry (Sayers et. al. 2009; Travis 2005). Despite the substantial degree of overlap, the interaction between these two institutions and the way it may influence community dynamics has received limited scholarly attention.

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[2] A rich body of literature on "neighborhood effects" continues to thrive in sociology (e.g., Harding, 2009; Timberlake 2007). This line of research typically aims to identify the influence of community context on individual outcomes, rather than examining the trajectory of the community itself. Research on neighborhood segregation by race and class often considers neighborhood trajectories, but typically limits its focus a narrow range of dimensions (e.g., Jargowsky, 1997, Massey & Denton, 1993).

Of course, the institutions differ in important ways as well. Military service now represents a voluntary status whereas incarceration is exclusively involuntary. The military also draws its service personnel disproportionately from rural areas and small towns, whereas the incarcerated population is primarily drawn from urban areas. Finally, military staffers have slightly higher average levels of education (median = high school degree) whereas inmates are disproportionately drawn from the bottom of the educational distribution (median = 11 years of schooling). Despite these important differences, we argue that the joint study of military enlistment and incarceration promises some novel insights. Particularly in light of the dramatic growth in the prison population over the past decade, and the companion increase in the average term of enlistment and risk of deployment among military personnel, understanding the population disruption associated with these institutions represents an important social science and policy concern.

In the current paper, we will identify the key characteristics of "sending" communities for both prison and the military, examine the degree of overlap in the demographic, social, and economic profiles of communities serving as population reservoirs for each institution, and estimate the ways in which institutionally-driven population removal may result in changed community contexts. We begin our analysis with a study of Los Angeles County.[3] We plan to: 1) map the spatial distribution of inmate and enlistee origins; 2); identify the degree of overlap in the characteristics of neighborhoods that send large numbers of individuals into these institutions; and 3) enumerate changes in key social and demographic features that characterize high-enlistement and high-incarceration communities over time.

The characteristics of inmates' sending communities are relevant for a number of reasons. Perhaps most critically, high levels of population removal can undermine the level of social organization of a community and the ability of its members to establish and enforce collective norms of pro-social behavior (Short 1972). Indeed, the strength of social institutions within a neighborhood – supported by population stability—has been associated with levels of criminal behavior (Clear, 2007; Maume and Lee 2003; Peterson et. al. 2000), patterns of family formation and sexual behavior (Browning and Olinger-Wilbon 2003), marriage markets (Braman, 2004), and levels of economic insecurity (Edin and Lein 1997; McLanahan and Booth 1989).

We might expect to identify changes in prisoners' home communities via indirect pathways as well. For example, residential instability, a key byproduct of mass incarceration, has been shown to weaken neighborhood social ties (Warner and Rountree 1997), limit access to health care (Kirby and Kaneda), and increase rates of child maltreatment (Coulton et. al. 1995). The increased prevalence of single-parent households one would expect to find when large numbers of men are in jail or prison may also affect neighborhoods via the increased risk of incarceration

[3] Data requests are currently under review for several major counties in California, as well as at the Florida Department of Corrections. Additional California counties are Alameda, Fresno, Kern, Riverside, San Bernardino, San Joaquin, Santa Clara, and Solano, which combine to include roughly half of California's 34 million residents, and include major population centers in the state's economically and geographically distinct regions. A data request has been approved by the Texas Department of Criminal Justice, and we anticipate receiving data by mid-November.

among adolescents living without their fathers (Harper and McLanahan 2004), earlier sexual initiation among teenage girls (Davis and Friel 2001; Upchurch et. al. 1999) and higher rates of poverty (Beverly 2001).

The effects of military-related population movement on families and communities has been studied primarily by examining the places where military bases are located (Antecol and Cobb-Clark 2008;), focusing on correlates of relocation among the spouses and children of armed forces personnel (Cooke and Spiers 2005; Kelley et. al. 2003; Marchant and Medway 1987; Weber and Weber 2005), tracing the locations where high concentrations of veterans retire (Barnes and Roseman 1981; Cowper and Longino 1992; Cowper et. al. 2000), or identifying problematic behaviors or conditions that disproportionately affect veterans (Rosencheck and Kogel 1993; Tessler et. al. 2003). Very little research has examined the characteristics of "sending" communities. However, Kleykamp (2006) finds that adolescents from counties with greater active duty military presence are more likely to enlist, and that county-level racial composition, unemployment rate, and per capita income affect whether similar high school graduates choose to enter the military vs. enrolling in college or finding civilian employment. However, the degree to which communities are themselves changed due to the aggregated individual decisions to enlist is largely unexplored.

We will contribute to the scant literature on communities that supply the ranks of the armed forces and fill prison cells using inmate and enlistee home address data to link individual variables with social and economic characteristics at the ZIP code or census tract level. We will assess the community-level effects of population removal by examining trends in spatial concentration of these populations over time, using data on institutionally-linked neighborhood exits from 1990, 1995, 2000, 2005, and 2008/2009, and identify shifts in the social, demographic, and economic characteristics of "sending" communities. We will use data from the U.S. Census Bureau's 1990 and 2000 population censuses (STF3 files) and Uniform Crime Report statistics to measure neighborhood characteristics. To protect individual confidentiality, only five-digit ZIP codes with at least five new prison admissions or military accessions in each period will be included in our analyses. Key outcomes of interest will include gender composition, age distribution, incidence of single-parent families, labor force participation, and crime rates. We will examine the trajectories of neighborhoods along these dimensions, comparing them to neighborhoods with similar starting profiles but lower levels of subsequent institutional intervention.

Data and Methodology

We plan to use administrative data on all adult inmates admitted to county jails in several California counties, as well as the state prison systems in Florida and Texas in the calendar years 1990, 1995, 2000, 2005, and 2009. We currently have received data from Los Angeles County for all years, and expect to receive Texas data by mid-November. All other requests are pending. For each prisoner, we will have the following fields of information: Age, race, gender, date of admission, expected or actual date of release, and charges at time of booking. For individuals who were released into the custody of another administrative agency, the new custodial agency is identified. Although we were not able to obtain actual home addresses for these prisoners, we typically have the street name and city, and frequently the ZIP code as well. Our analyses will

be restricted to those individuals who were incarcerated for at least 30 days, in order to more specifically focus on community disruption created by high levels of incarceration.

Our military analyses will use the Defense Manpower Data Center's administrative data on new military accessions for these same years. For new military accessions, we currently have data from 2008 covering the entire United States, and have a Freedom of Information Act request for the remaining years in-process. We have received unofficial verbal approval for this request, and expect to receive official data by late November. For each newly-commissioned officer or warrant officer, or newly-enlisted servicemember, we expect to receive data on the individual's age, race, ethnicity, and gender, as well as the city, state, and ZIP code of their home address.

Using this geocode information, we will then link records for individual inmates and military personnel to local area data from their communities of origin. We will employ linear interpolation to estimate change in neighborhood measures between census enumerations, when annual estimates from other sources are not available. The first phase of this project will be descriptive. Using mapping and spatial analytic software, we will identify areas with high concentrations of newly-admitted prison inmates and armed forces personnel. We include a preliminary map of Los Angeles County (2008), to provide an example of the descriptive data we will present (please see Figure 1). This map graphically displays the number of incarcerations and enlistees for each ZIP code.[4] Areas colored in darker hues had a larger number of their residents incarcerated, and ZIP codes with larger dots sent more young adults into the armed forces. Visual examination of the map identifies that there is a good deal of spatial overlap in neighborhoods with high levels of both incarceration and enlistment – an interesting finding in itself. There also appear to be many areas that sent few of their residents into either of these institutions. Perhaps most tantalizing to the social researcher, however, are the neighborhoods that appear to have supplied one, but not the other, of these institutions. Once we have described community contexts that are more likely to produce prisoners or soldiers, we will compare the profiles of these neighborhoods to the population of neighborhoods in the same counties or states.

In the more analytic steps of this project, we will identify whether the same communities serve as institutional population reservoirs across these decades, and evaluate shifts in the social, demographic, and economic characteristics of "sending" communities over time. Here we are interested in examining how communities adapt to high levels of population removal targeting young men. Indicators of community change will include marriage rates, single parent families, labor force participation, and crime rates. By comparing neighborhoods that were initially demographically similar, but experience different levels of participation in one or both institutions, we hope to identify the ways in which their subsequent trajectories diverge. Are similar kinds of outcomes associated with rising rates of military enlistment relative to incarceration, or are there distinct community consequences associated with each institutional intervention?

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[4] Note that values are graphed for each institution only in those ZIP code areas with at least five individuals admitted during 2008.

We believe that this project charts new intellectual territory on a number of fronts. It is the first effort we are aware of that proposes jointly studying the effects of the military and the criminal justice system. Additionally, our focus on the effects these institutions have on sending communities has only been broached for the criminal justice system, and many questions remain unanswered. Finally, our attempt to leverage data covering a number of years will provide a better understanding of the way in which institutionally-motivated population removal can affect community trajectories over time.

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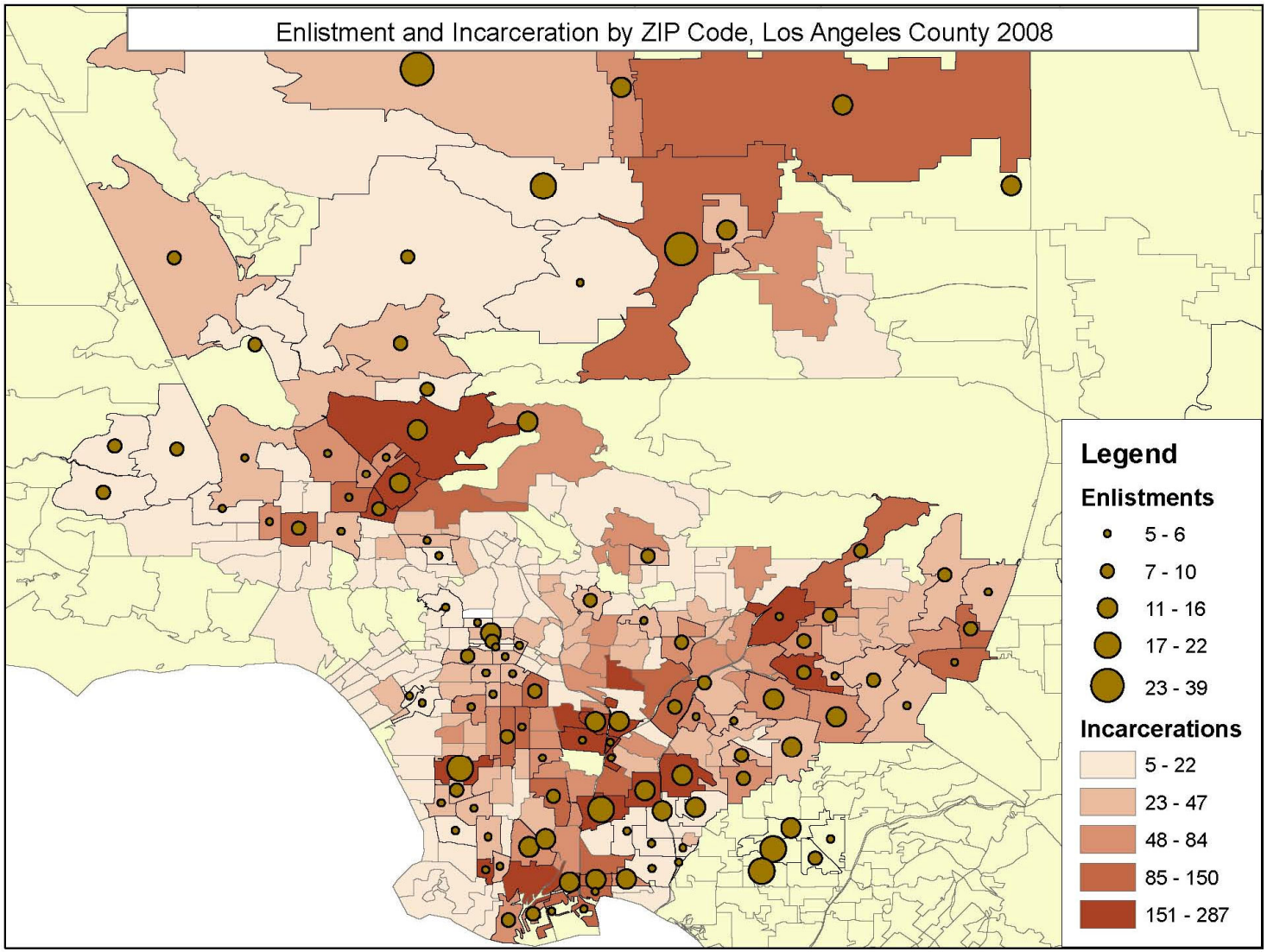
Enlistment and Incarceration by ZIP Code, Los Angeles County 2008
Legend
Enlistments
5 - 6
7 - 10
11 - 16
17 - 22
23 - 39
Incarcerations
5 - 22
23 - 47
48 - 84
85 - 150
151 - 287