SPATIAL INFORMATION DESIGN LAB

The Pattern

Spatial Information Design Lab

Columbia University Graduate School of Architecture, Planning and Preservation

The Pattern:
Million Dollar Blocks

Since 2005, the Spatial Information Design Lab has been investigating the geography of incarceration in the contemporary United States.[1]

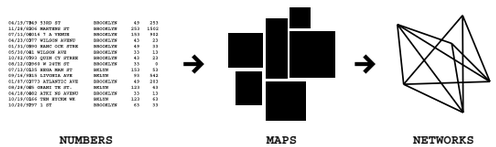
Building on work already done jointly by the Council of State Governments, the JFA Institute, and the Justice Mapping Center, the lab's mapping project seeks to help advocates and government officials focus attention on the conditions and needs of urban spaces which show high rates of incarceration. Rather than focus only on the punishment and rehabilitation of individuals, the research identifies particular places and emerging strategies for investing public resources in order to address the urban conditions from which prisoners come and to which most of them return.

The lab's recent research concentrates on Phoenix, Wichita, New Orleans, and New York City. The individuals, geographies, demographics, and contexts vary significantly from city to city. But when they are considered as urban spaces, the neighborhoods with very high rates of incarceration in these four cities demonstrate some striking similarities.

Our research has been guided by and refined some general concepts and strategies.

Making Maps with Data

Spatial information design is a name for ways of working with the vast quantity of statistical and other data available about the contemporary city. By reorganizing tabular data using visualization techniques, and by locating the data geographically, we try to correlate disparate items of information, picturing the patterns and networks they create. Picturing data on a map can open new spaces for action, and options for intervention. The often-unseen shapes and forms of life in our everyday spaces become visible.

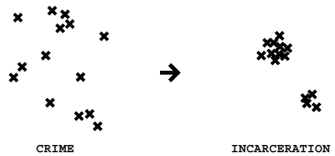


The maps we have developed over the course of this project — in which information about people is correlated and aligned with the geography of the city — suggest the existence of a specific urban phenomenon which has emerged over the last 40 years. By identifying a recurring spatial phenomenon that is linked to a social and political one, the maps indicate that the problems of mass incarceration demand more than criminal justice strategies alone.

From Crime Maps to Geographies of Incarceration

Crime maps are common devices for policy makers and urban police forces pursuing tactical approaches to fighting crime. The places where crimes are committed cluster in so-called "hotspots" at which resources can be targeted.

The geography of incarceration differs considerably from that of crime. When data about the residences of those admitted to prison are mapped, different patterns and concentrations emerge.[2]



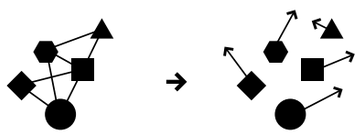
These help us envision ways in which the design of the built environment (the places where we live, work, play) might interact with governance (expressions of collective, public obligations) to produce different patterns in our cities.

Million Dollar Blocks

Prison admissions maps show us that a disproportionate number of the upwards of two million people in U.S. prisons and jails come from very few neighborhoods in the country's biggest cities. In many places, the concentration is so dense that states are spending in excess of a million dollars a year to incarcerate the residents of a single city block. We have called these "million dollar blocks."[3]

Infrastructure and Exostructure

Prisons are part of urban infrastructure – like streets, utilities, communications networks, parks, hospitals, and schools — but they are unusual in that they are not often situated physically within the cities they serve.



In fact, prisons are frequently the most significant government institution in certain neighborhoods, even though they are located hundreds of miles away. We have proposed to call this an urban "exostructure."

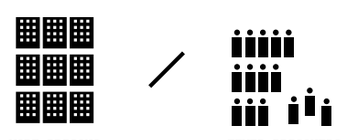
Reentry and Reincarceration

Instead of focusing on the 2,245,189 people who were being housed in Federal or State prisons and in local jails as of June 2006, policymakers are increasingly looking at the 650,000 people who return home from prison each year.[4] 95% of people sent to prison are eventually released, and mapping studies of parole suggest that most of them return to the communities from which they came.[5]

As a rule, though, they do not remain there. Nationally, more than half of those who return home are readmitted to prison within three years of their release. This cyclical structure — something like a permanent migratory pattern in and out of our nation's largest cities — is also a spatial one, and recognizing the pattern of million-dollar blocks offers new opportunities to challenge it.

Justice Reinvestment

States confronting an unrelenting increase in prison populations typically respond in one of two ways: build more prisons, in the vain hope that demand will abate, or release prisoners indiscriminately without a long-range plan.



Our research has focused on a third model, known as Justice Reinvestment, in which public officials identify ways to reduce the growth of the prison population and reinvest those savings to improve conditions in those parts of the city to which most prisoners return.[6]

Beyond Criminal Justice

The Vera Institute of Justice has reported that "the most sophisticated analyses generally agree that increased incarceration rates have some effect on reducing crime," accounting for perhaps 25% of the drop in crime during the 1990s. But, they continue, "analysts are nearly unanimous in their conclusion that continued growth in incarceration will prevent considerably fewer, if any, crimes than past increases did and will cost taxpayers substantially more to achieve."[7]

If that is an invitation to rethink the crime-fighting strategy that emphasizes incarceration, then we need to start thinking about the cities — and parts of cities — where the formerly-incarcerated live.

Pockets of poverty and racial isolation continue to prevail in identifiable city neighborhoods across the country. Each city is different, has different populations, densities, urban forms of inhabitation and growth. Likewise, the built environment of class and race looks different in each city. Whatever the differences, though, when we examine not only who America incarcerates but also where they come from, some important similarities emerge.

Prisons are not just a matter of criminal justice in the sense of individual punishments for specific crimes. They have social and political significance as well, which becomes clear when information about individuals is gathered into data and then correlated with demographic, economic and physical landscapes. The inmates in American jails and prisons are, as is well known, overwhelmingly people of color and people living in poverty.[8] According to the Bureau of Justice Statistics, "at year end 2005 there were 3,145 black male sentenced prison inmates per 100,000 black males in the United States, compared to 1,244 Hispanic male inmates per 100,000 Hispanic males and 471 white male inmates per 100,000 white males."[9]

What is less well known, though, is that neighborhoods they come from and to which they return are also; overwhelmingly populated

by people who are largely poor, black and Hispanic.

As Sudhir Venkatesh has written: “Researchers have identified communities disproportionately impacted by reentry; they have studied barriers to resource provision and social inclusion of individuals with criminal records; and, they have worked with advocates to design policies and programs that help reduce recidivism. However, there has been considerably less interest among researchers for a systematic analysis of the initial post-release time period.... There has been even less research on the spatial component – the geographic concentration of formerly incarcerated individuals, and the availability of resources in certain areas.” [10]

The research and the maps presented here now give a statistically-rich picture of the phenomenon Venkatesh describes: “central city neighborhoods and inner suburban ring communities — where much of urban poverty is situated — are playing host to the majority of inmates leaving jails, prisons, and detention centers”.[11] In addition, we can say with a high-degree of confidence that those neighborhoods are overwhelmingly populated by people living below the poverty line and people of color. This multiple or overlapping clustering phenomenon – released inmates are concentrated in a few places, and those are the same places where poor people are clustered and where people of color live most densely – is one of the major findings of our research.

This introduction of a geographic or spatial dimension in the analysis of mass incarceration is important because it identifies sites for intervention, location-based spaces and institutions — parks, churches, community groups and centers, schools, businesses, local officials, unused buildings, discrete environmental conditions — which might otherwise be overlooked when the focus remains at the individual or the municipal level.

A Pattern?

Our research focused on defining the patterns that link poverty, racial segregation, and incarceration, and on investigating whether their repeated coincidence takes on identifiable spatial forms. We looked at data from Phoenix, Wichita, New Orleans, and New York City about people living in poverty, people of color, prison admissions, and prison expenditures in dollars. We have displayed this data across four maps for each city.

Notice that the formal territories and concentrations appear to be similar in each map, and a pattern emerges as you flip through the pages.

Actually, two patterns emerge.

1. Everyone knows, or thinks they know, that the overwhelmingly majority of people incarcerated in the United States are people of color and poor people. What is less well known, and what these maps confirm at the level of urban spatial form, is that the neighborhoods from which they come and to which they return are themselves overwhelmingly populated by people living in poverty, African-Americans and people of Hispanic descent. In technical terms, those groups appear in much higher concentrations in these areas than anywhere else in the cities.

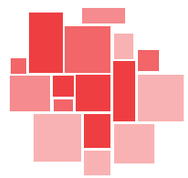
The maps demonstrate the rather exact geographic convergence, in these four cities, between the neighborhoods with the highest densities of people living below the poverty line, people of color, and people admitted to prison. We have used four maps in each city to visualize this data.

2. At the level of spatial form, a second pattern emerges as well. In the four cities, the neighborhoods that feature this overlap between poor people, people of color, and people in prison also share a number of physical features. The work we have done in these cities describes a territory and chronicles the appearance of

a formal pattern. The maps are an invitation to look more closely at the parts of the city highlighted. We have charted these spaces in red, and the brighter the shade, the more pronounced are the features we describe.

Methodology: Aggregations, Percentages, Densities and Means

There is no such thing as raw data. Data can be represented and visualized many different ways. On the first four maps for each city, data about people has been aggregated into block-groups or census blocks to visualize a spatial pattern:



INTENSITY

Poverty Map: The brighter the red area on the map, the higher the percentage of people from the block group who are living at or below the Federally-defined poverty level.

Race Map: The brighter the red area on the map, the higher the percentage of people from that block group who have identified themselves as people of color (black or African-American, Hispanic or Latino/a, Native American...).

Admissions Map: The brighter the red area on the map, the higher the percentage of incarcerated people who reported a home address in that block prior to incarceration.

Prison Expenditure Map: The brighter the red block on the map, the more money has been allocated to incarcerate people sentenced to prison from that census block that year. Flipping the pages allows a spatial comparison, and a pattern of geographic overlap is evident.

DENSITY

Density Maps: In order to illustrate how prison admissions, poverty, and race are spatially distributed at the scale of a city, we have adopted something akin to Map Algebra. The data have been translated into density surfaces representing the highest spatial concentrations of poverty, people of color and those admitted to prison. When these semi-transparent concentrations are layered on top of each other, their coincidence can be “added-up” visually. The areas where all three concentrations are present exemplify the most extreme conditions, and in each city we have selected one block to demonstrate that condition.

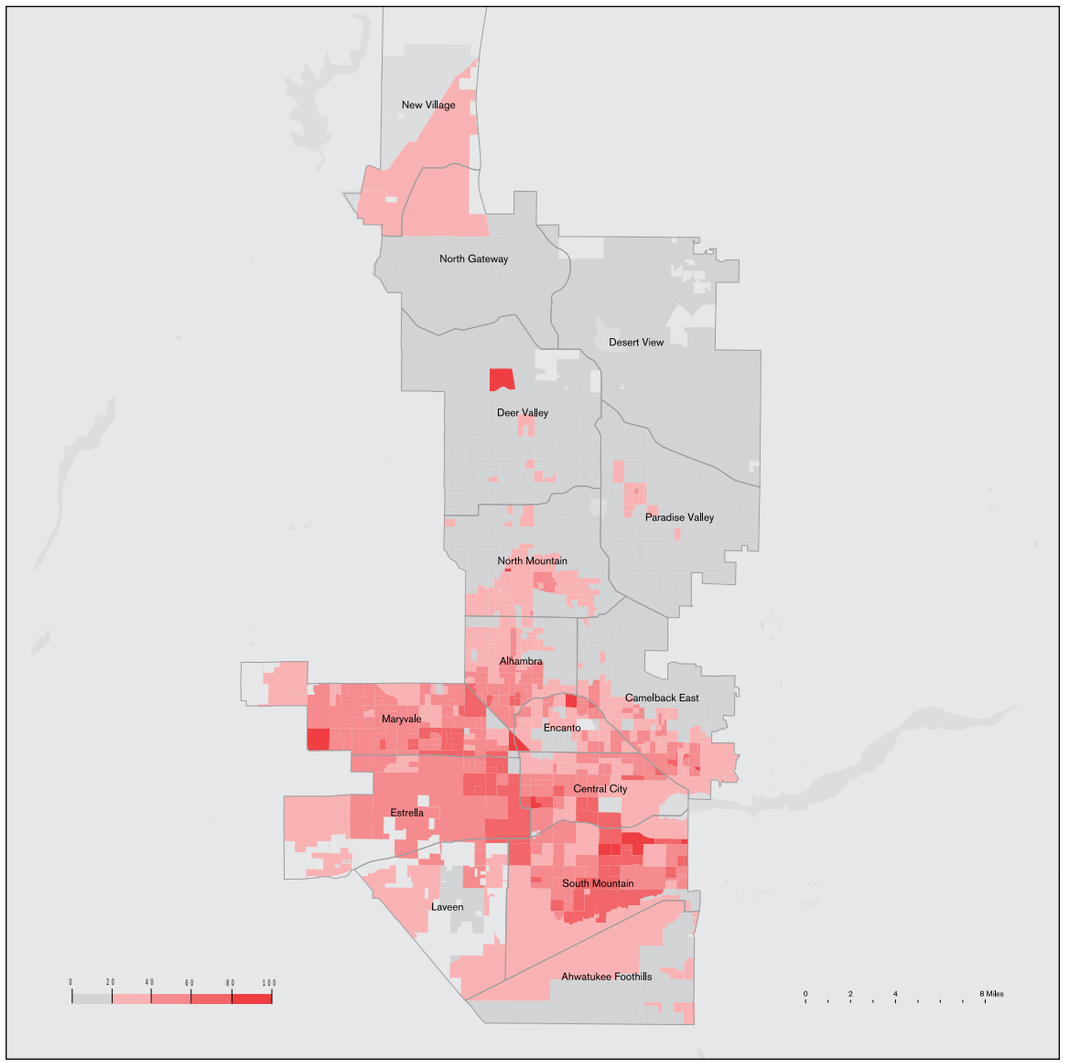
LAND USE

Land Use Map (a Single City Block): That extreme block exemplifying these concentrations is then represented at a smaller scale. At this scale our fundamental research question becomes clear: if there is indeed a pattern of social isolation, does the built environment reveal a pattern of physical isolation as well? Or, do the neighborhoods look alike? We think that the answer is, in urban terms, yes.

We have relied here on the conventions of urban description in order to construct portraits to accompany the demographic ones highlighted by the contour maps. Using information that is publically accessible in urban databases, we have described each of these single city blocks in terms of land use, building footprints, and aerial photographs.

The Pattern:
Four Cities

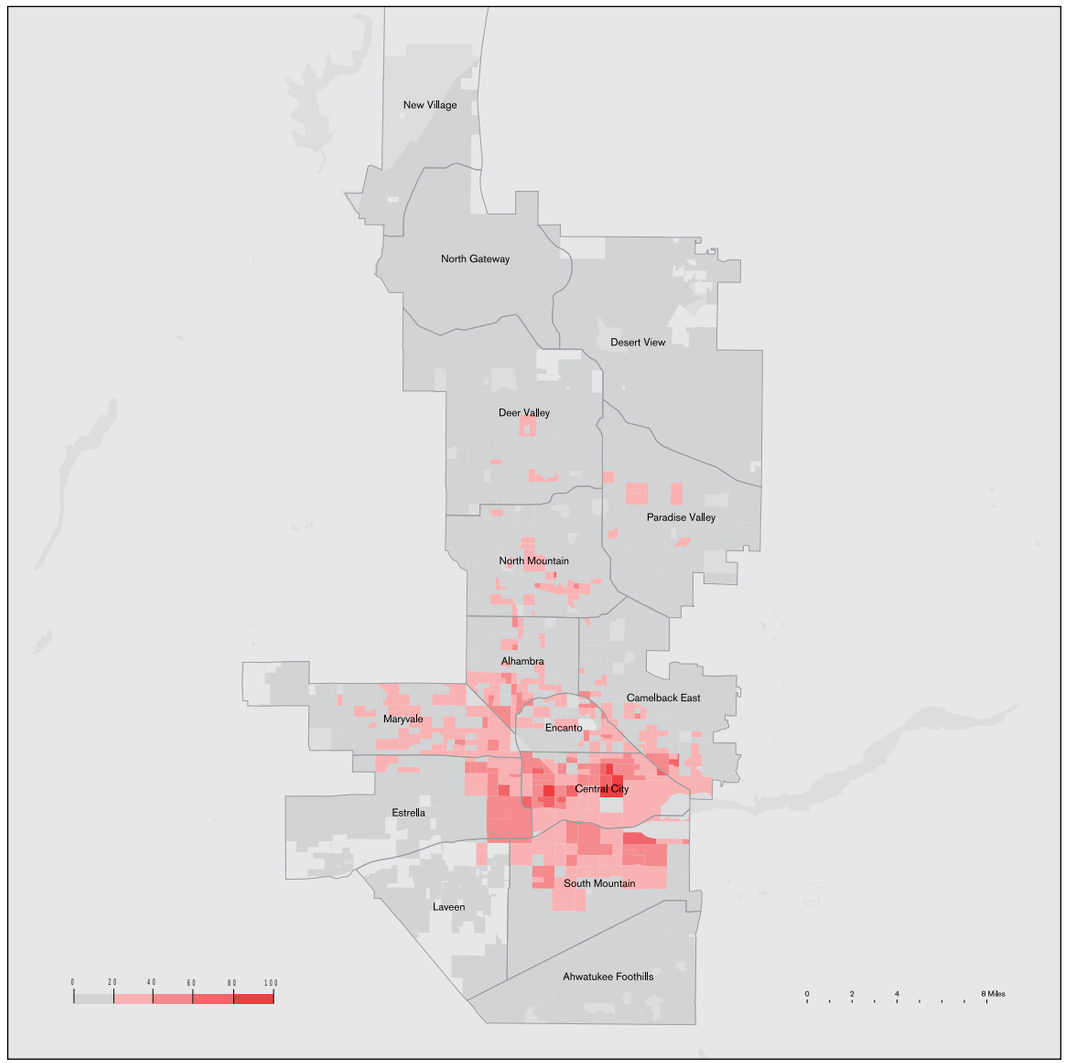
1.
Phoenix, Arizona



Percent persons of color, 2000

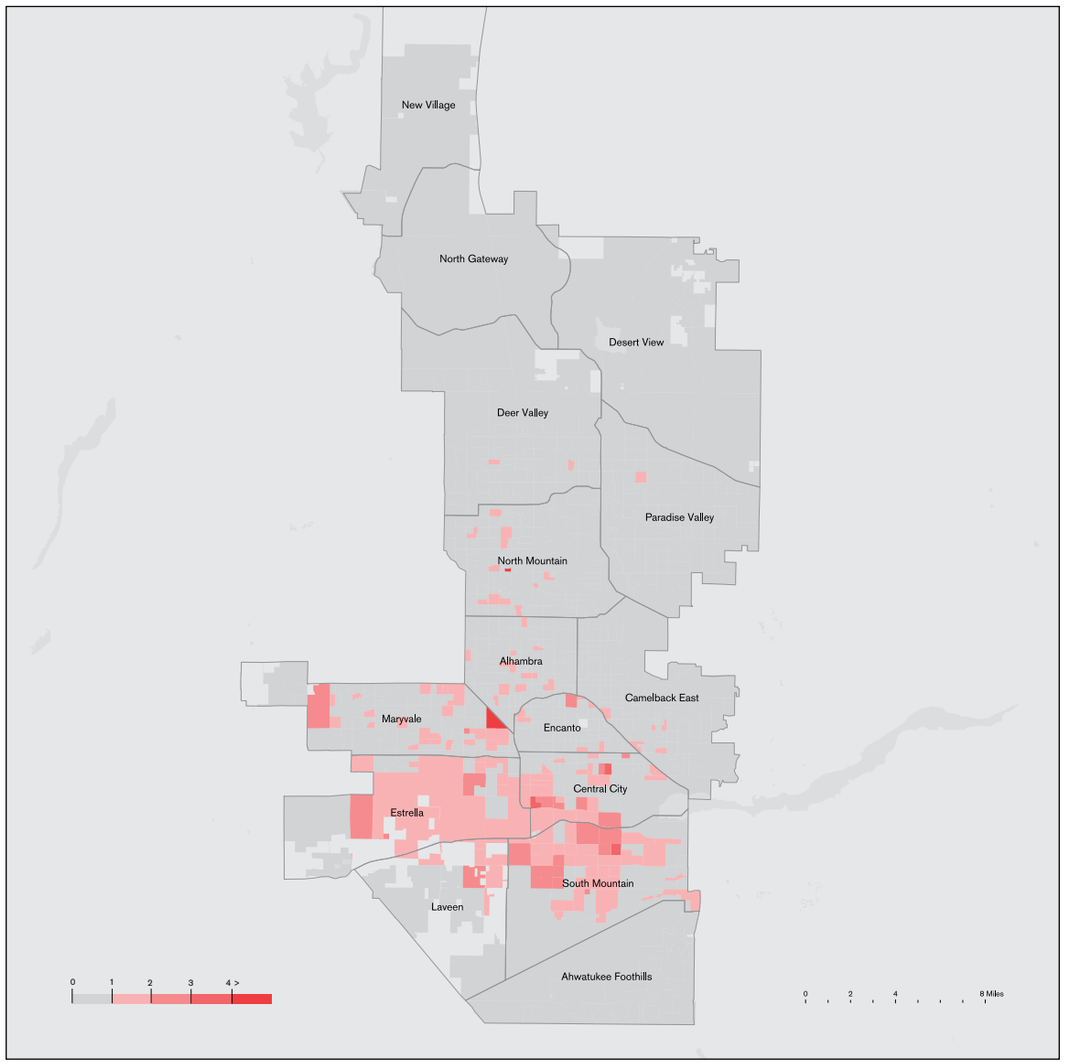
Arizona's ever-rising prison population has prompted a number of government initiatives to make better use of state resources. In 2004, the creation of an inter-agency task force on prisoner reentry resulted, not surprisingly, in the realization that all the agencies involved were serving or focusing on the same people in the same neighborhoods, and that other agencies (beyond criminal justice) were working with them as well.

As a result, in Phoenix, two location-oriented justice reinvestment programs have started. In each program, resources are focused on a specific neighborhood identified by prison admissions maps. The first connects people



Percent persons below poverty line, 2000

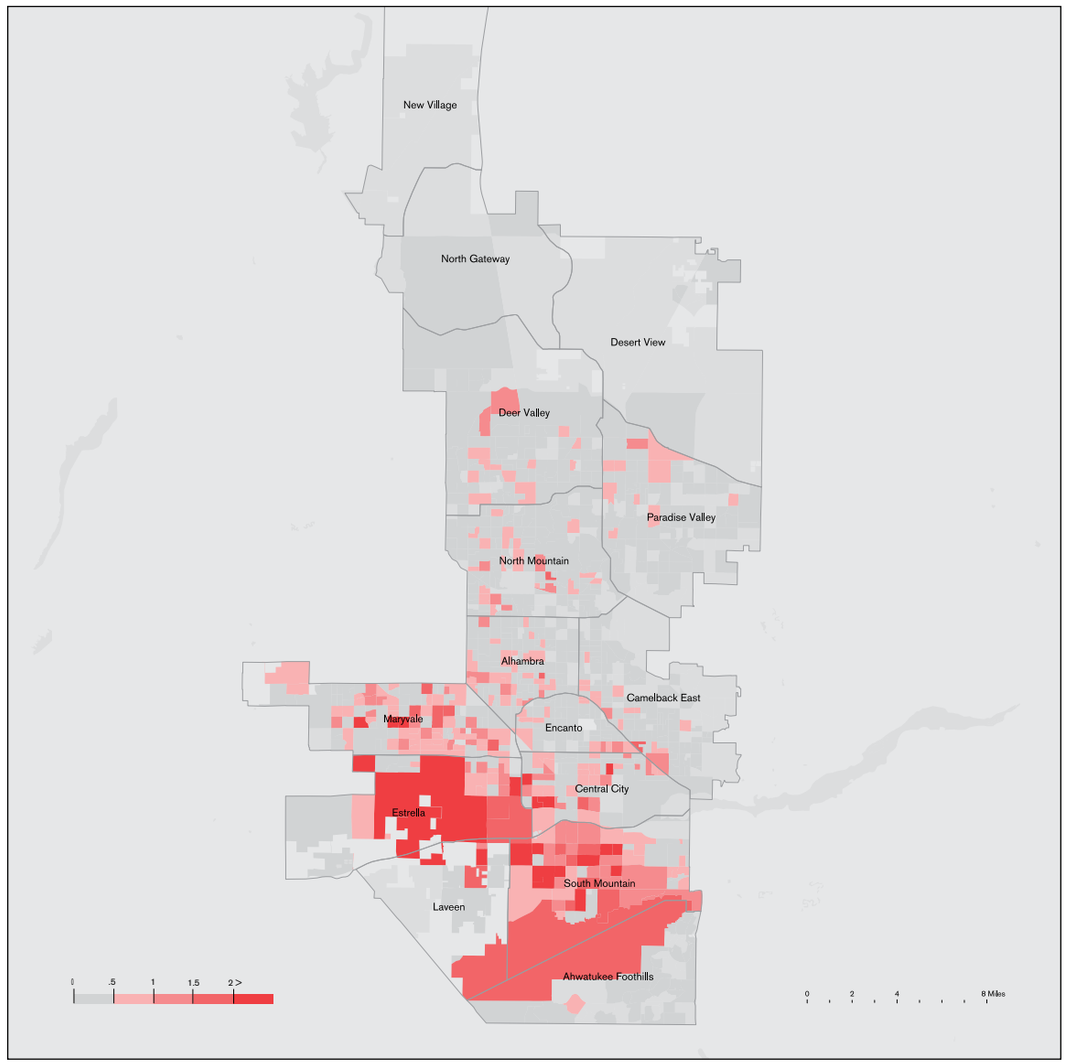
leaving prison with Department of Economic Security family caseworkers to work at the family and neighborhood level, and the second organizes parolees and probationers under the same protocols within the same neighborhood.



Percent adults admitted to prison, 2004

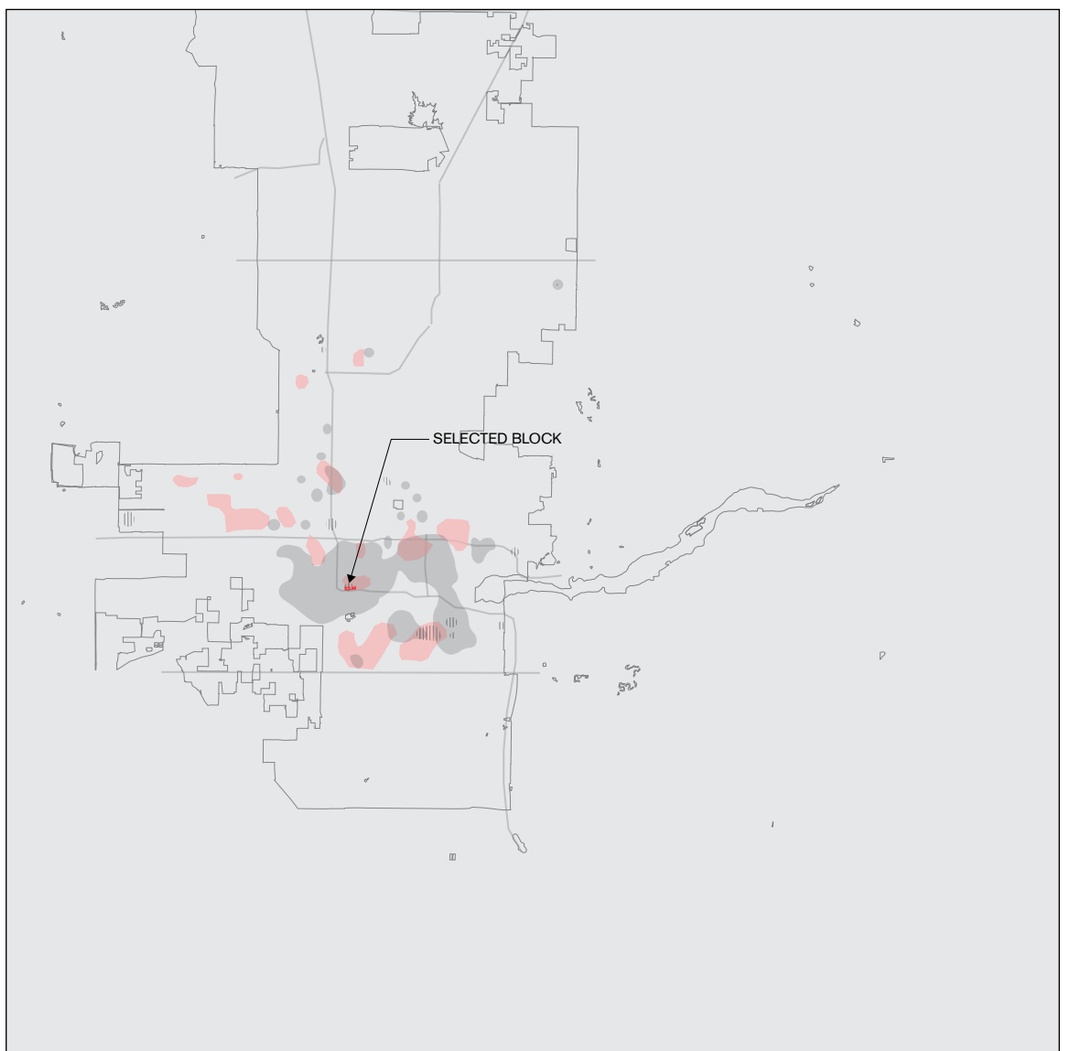
Costs of Incarceration

Maricopa County had one of the highest rates of incarceration in the State of Arizona in 2004. In Phoenix, the biggest city in the state with a population of roughly 1.4 million, it cost nearly $300 million that year to incarcerate 4,060 residents. 62% of those incarcerated that year will likely be released within 1–3 years. 10.10% of the people admitted to prison that year from Phoenix were residents of, and will most likely return home to, Central City, which housed only 4.9% of Phoenix's total population.



Prison expenditures by block group
in millions of dollars, 2004

Selected block
High percentage of population people of color
High percentage of population living below poverty line
High percentage of population admitted to prison
City boundary
Major highways
Water

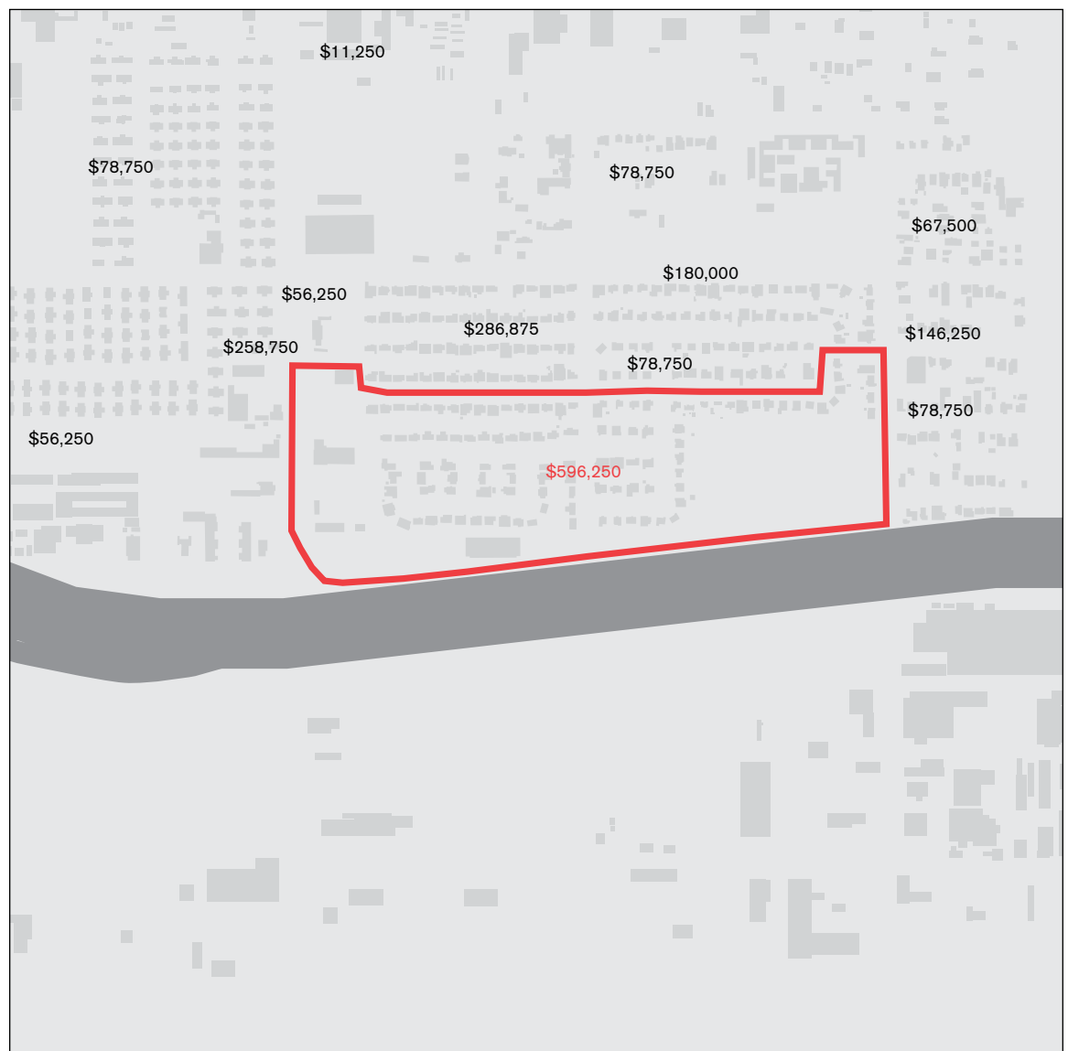


Shaded contours display the highest concentrations of populations living below the poverty line, people of color and people admitted to prison. The selected block falls within the boundary of central city planning district.

Landscape of Incarceration

This block is part of the Center City Planning District, which showed a high concentration of incarcerated people in 2004. It is in Census Tract 1148. Of the 3,216 people living there in 2000, 77% identified themselves as Hispanic or Latino/a, and 53% were living in poverty.

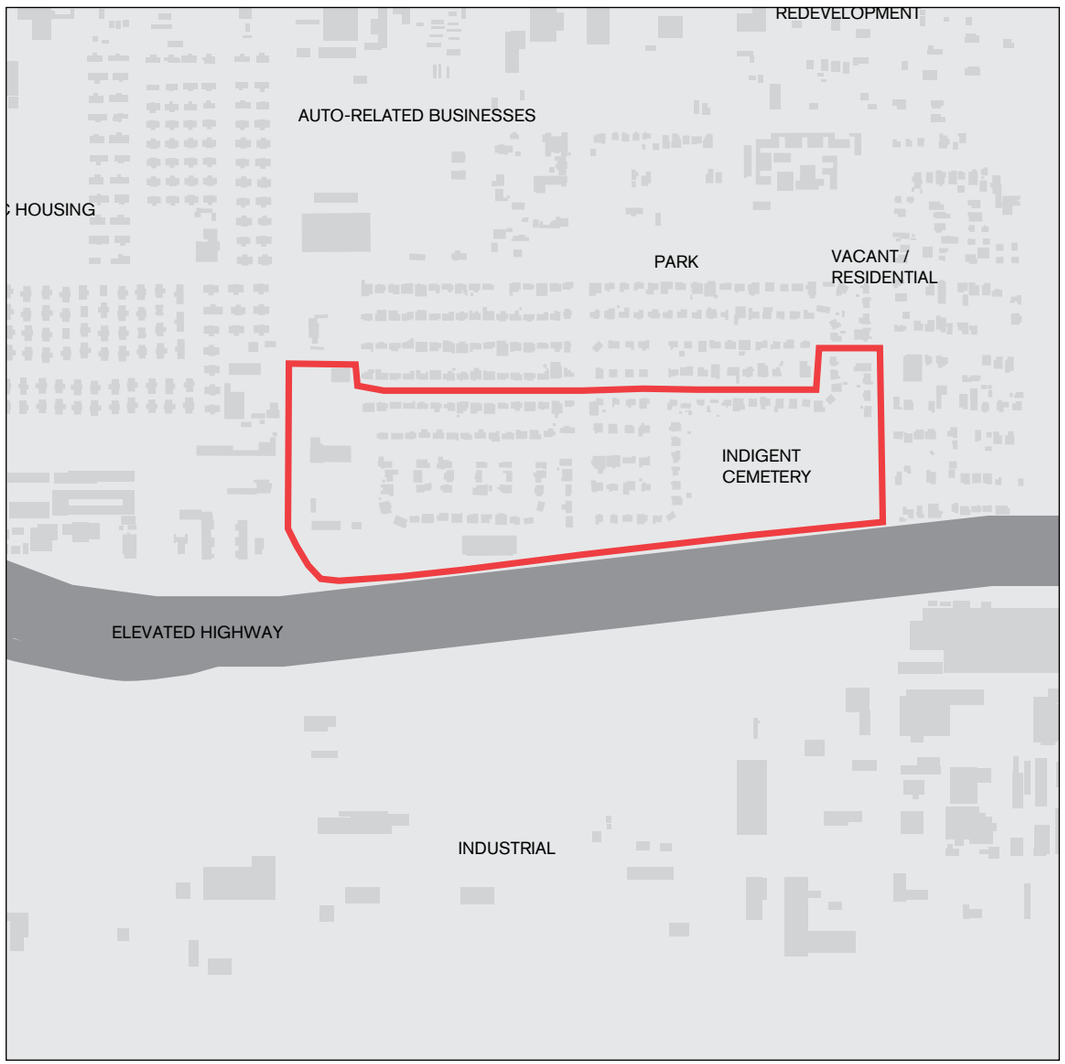
The block is located adjacent to the Maricopa Freeway, Interstate 17. The area referred to as Central City South is situated to the southwest of Phoenix's downtown core and is characterized by industry, public housing, vacant land, and the 30-foot-high elevated highway built in 1960, with railroad tracks several blocks north and the Sky Harbor International Airport to the east.



Prison expenditures calculated by census block.
Million dollar block: Phoenix, 2004

The area can be defined as a poor area in transition, since it falls within a large planning initiative.[12] A Hope VI development is underway which, like most projects of its type, will replace the Matthew Henson Public Housing Community (torn down in 2004) with a mixed-income housing development. The hope is to revitalize the neighborhood, physically and socially.[13]

The block itself is made up of single-family detached houses known as the New Homes, even though these homes are now some of the oldest housing stock in Phoenix. The houses are 30–50–years old and hold a racially mixed African-American, Latino/a, and Native American population. Senior citizens are a significant presence and also a large indigent population.

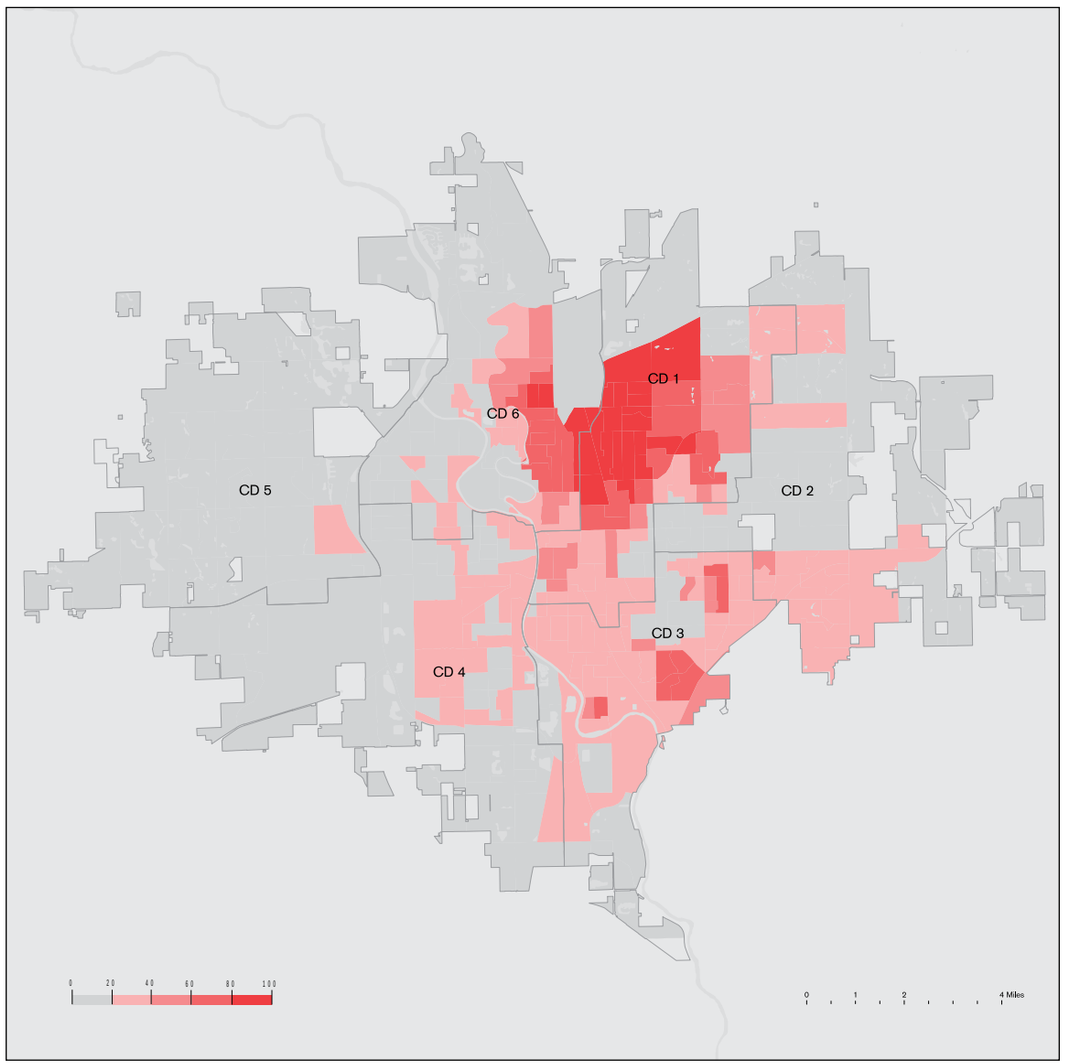


Million dollar block: Phoenix

The housing stock has deteriorated significantly. A neglected indigent cemetery and vacant residences on the east of the block represent the general pattern of disinvestment here. Despite these poor conditions, the New Homes are still considered to be the best non-subsidized housing in the area.[14]

Google Earth, 2007

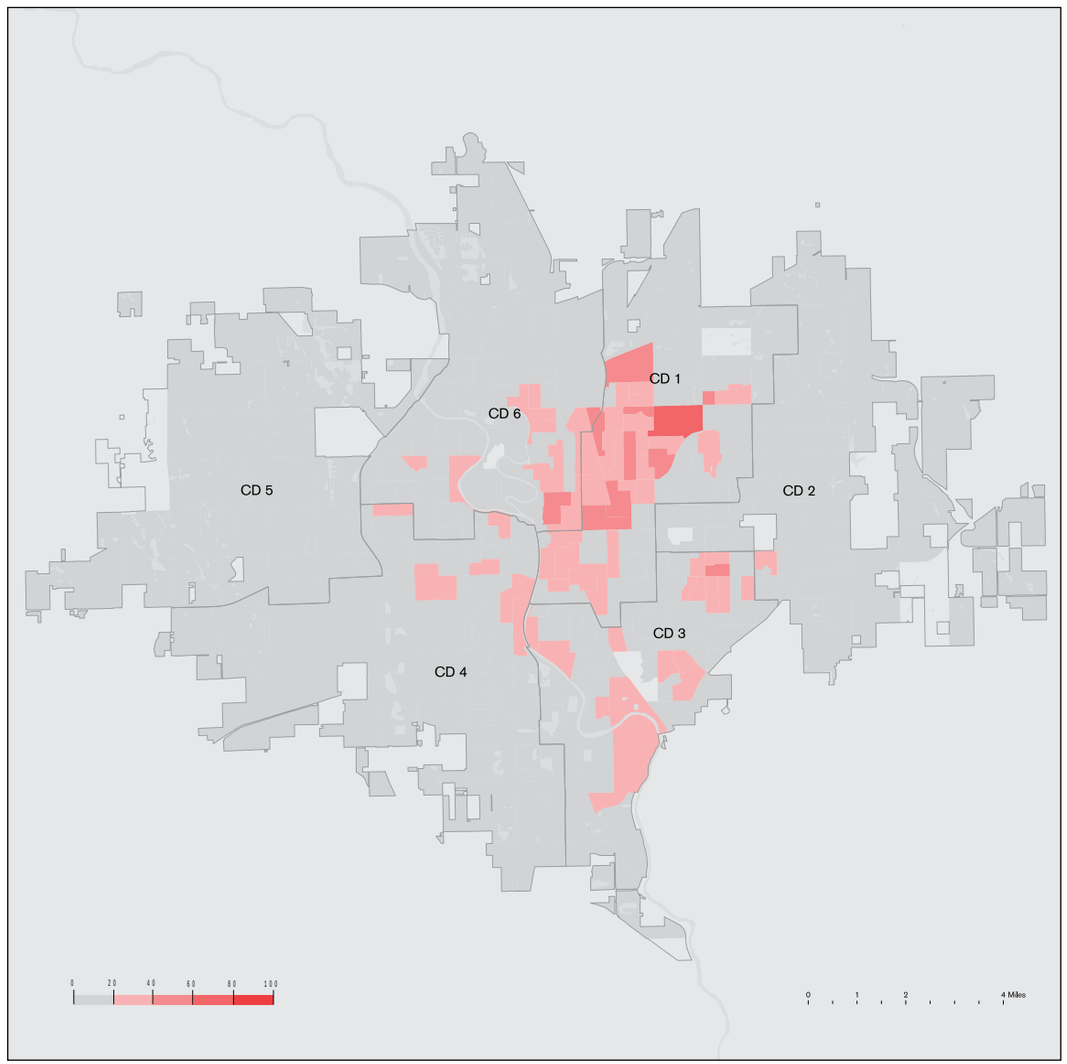
2.
Wichita, Kansas



Percent persons of color, 2000

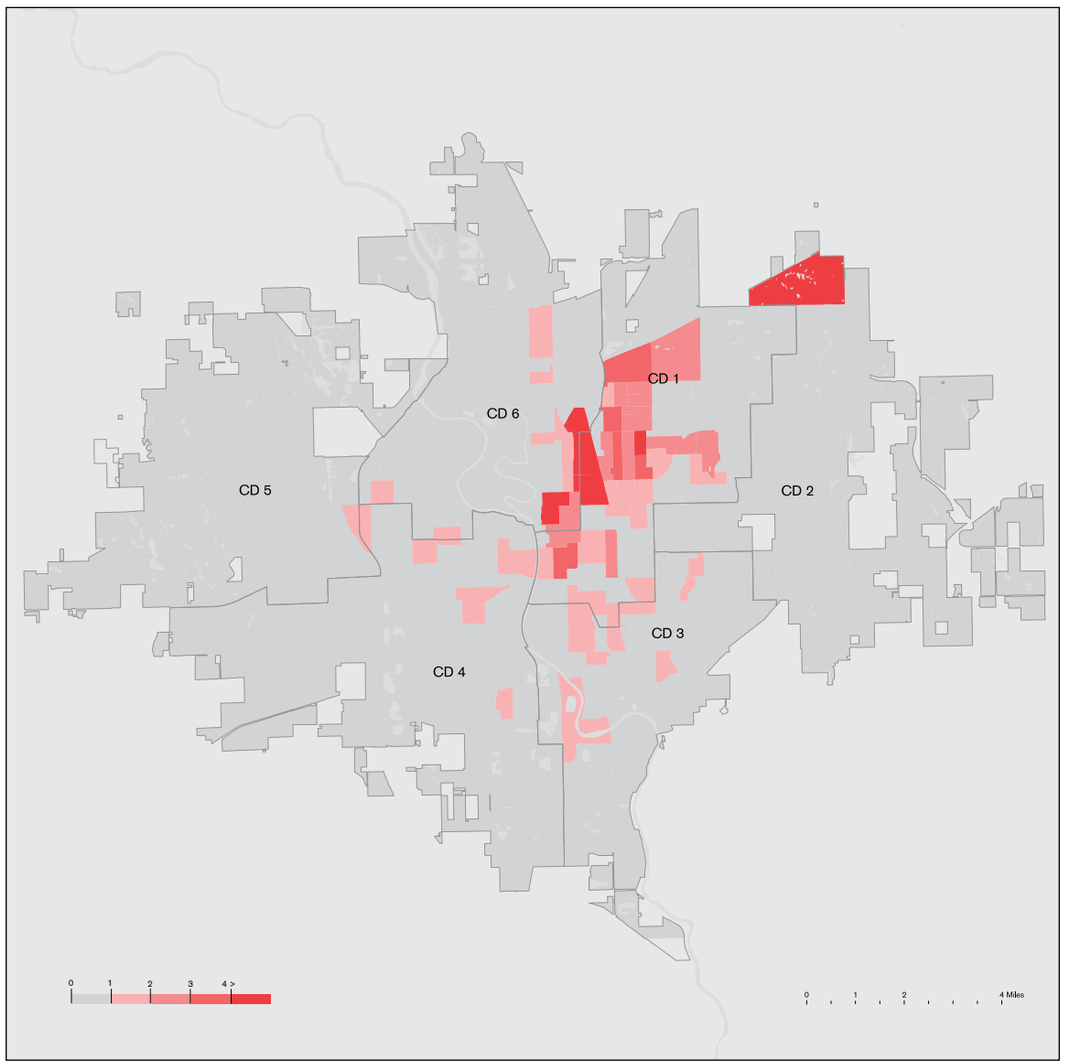
In 2004, Kansas state officials confronted a continuing increase in their prison population, which was predicted to grow by another 25% in the coming decade. Most of those sent to prison were expected to return to just a few city neighborhoods in Wichita and other major cities in Kansas. To avert $500 million in spending for a new prison and to encourage local conditions that would foster reintegration, the state created a justice reinvestment initiative. The first step was to implement changes to parole supervision aimed at reducing by half the number of parolees returning to prison.

The estimated savings from averting the construction of the new prison were directly



Percent persons below poverty line, 2000

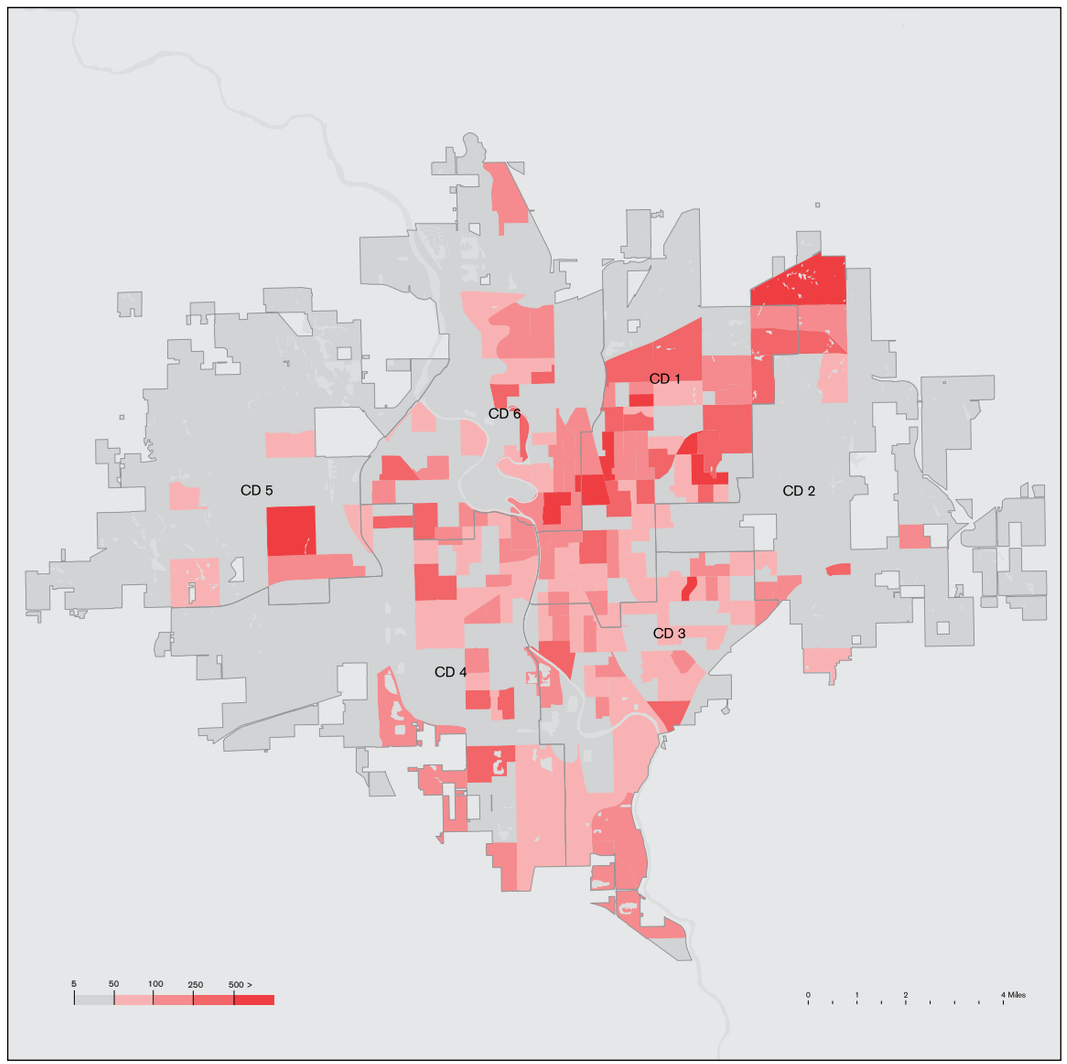
applied to support pilot reentry initiatives in targeted areas which were defined by the kind of prison admissions maps reproduced here. Housing, health, and employment agencies were brought together to plan innovative ways of focusing their existing resources on high-reentry neighborhoods.[15]



Percent adults admitted to prison, 2004

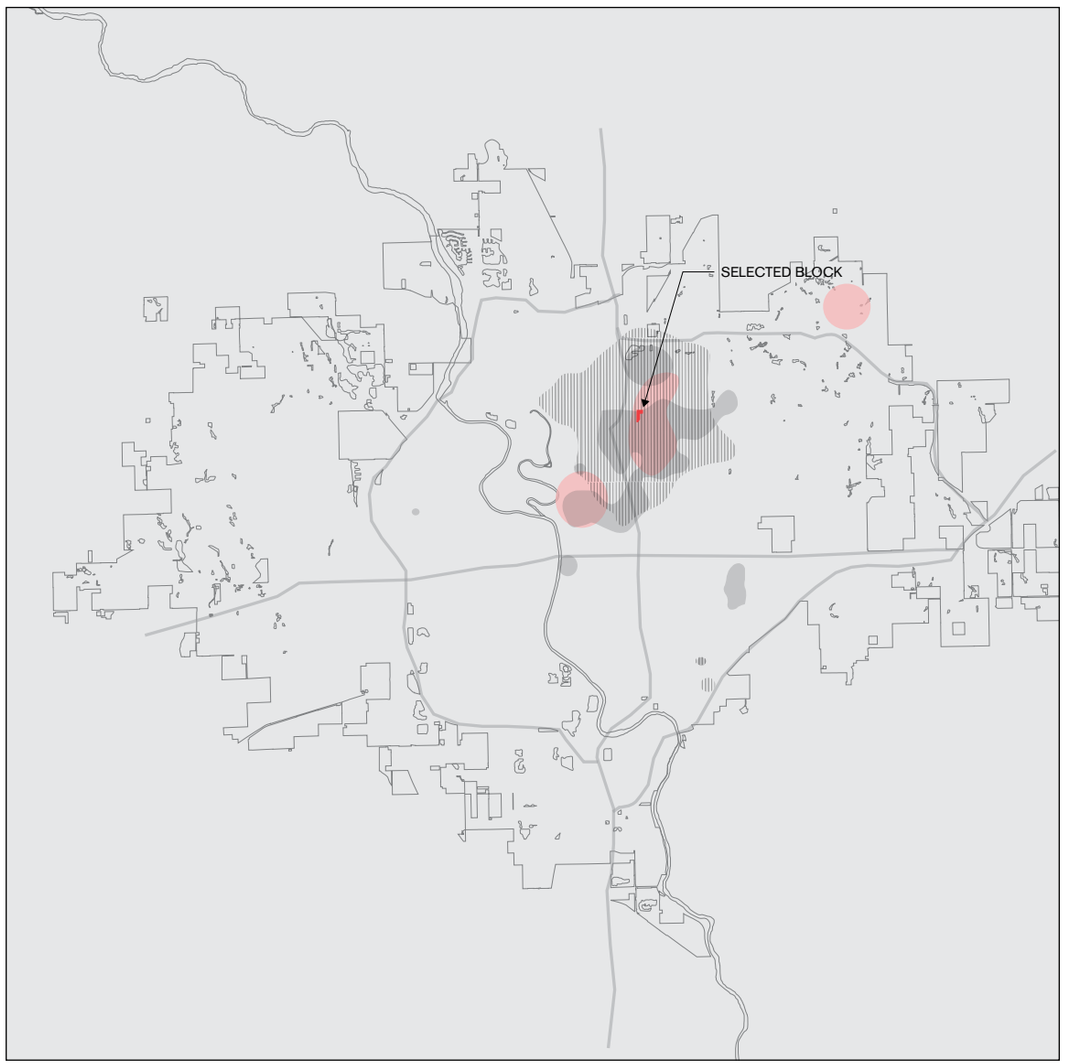
Costs of Incarceration

Sedgwick County had one of the highest rates of incarceration in the State of Kansas in 2004. In Wichita, the biggest city in the state, with a population of slightly more than 350,000, it cost about $29 million that year to incarcerate 1,420 residents. 68% of the people incarcerated will have been released within 1–3 years. 32.23% of the people admitted to prison that year from Wichita were residents of, and will most likely return home to, Council District 1, which housed only 15.99% of Wichita's total population.



Prison expenditures by block group
in thousands of dollars, 2004

Selected block
High percentage of population people of color
High percentage of population living below poverty line
High percentage of population admitted to prison
City boundary
Major highways
Water

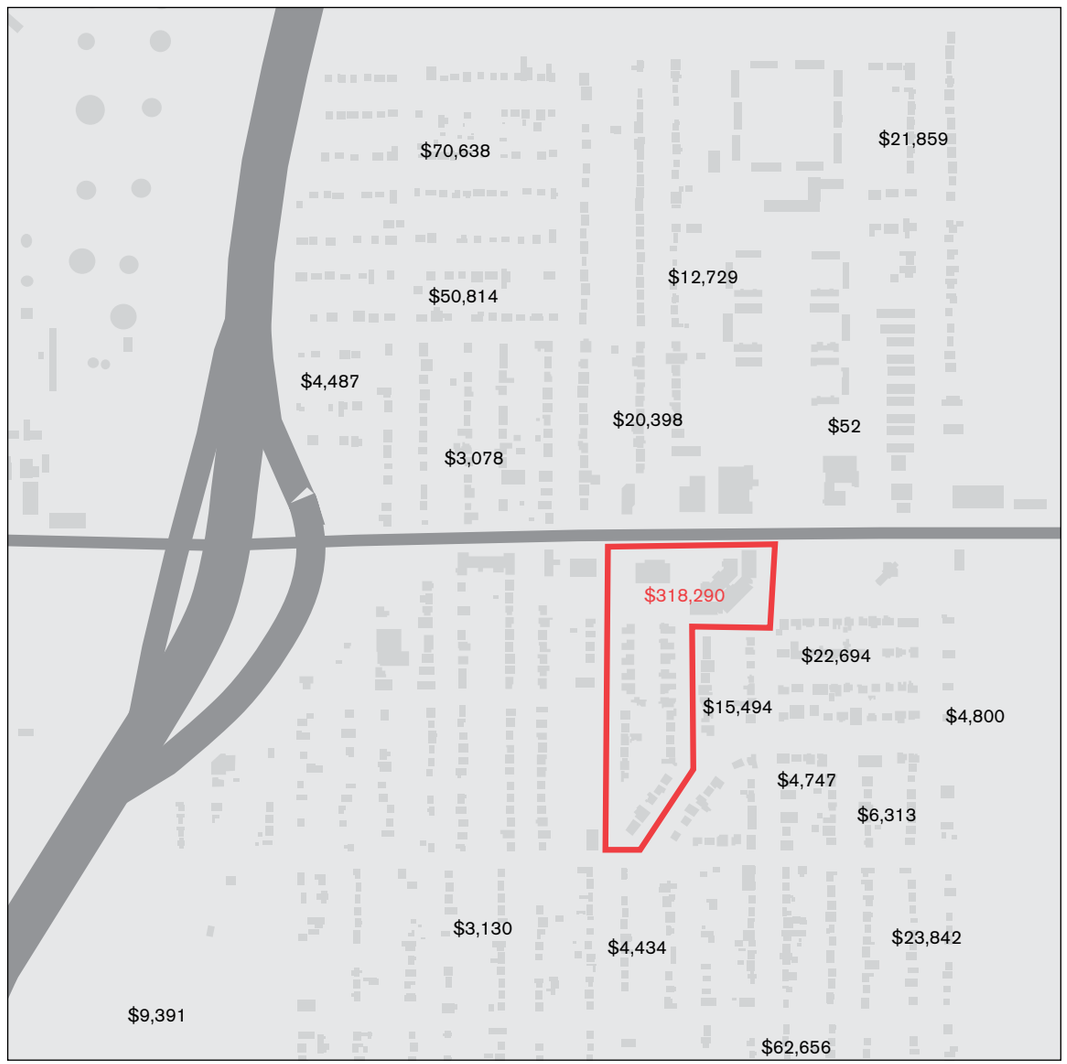


Shaded contours display the highest concentrations of populations living below the poverty line, people of color and people admitted to prison. The selected block falls within Council District 1.

Landscape of Incarceration

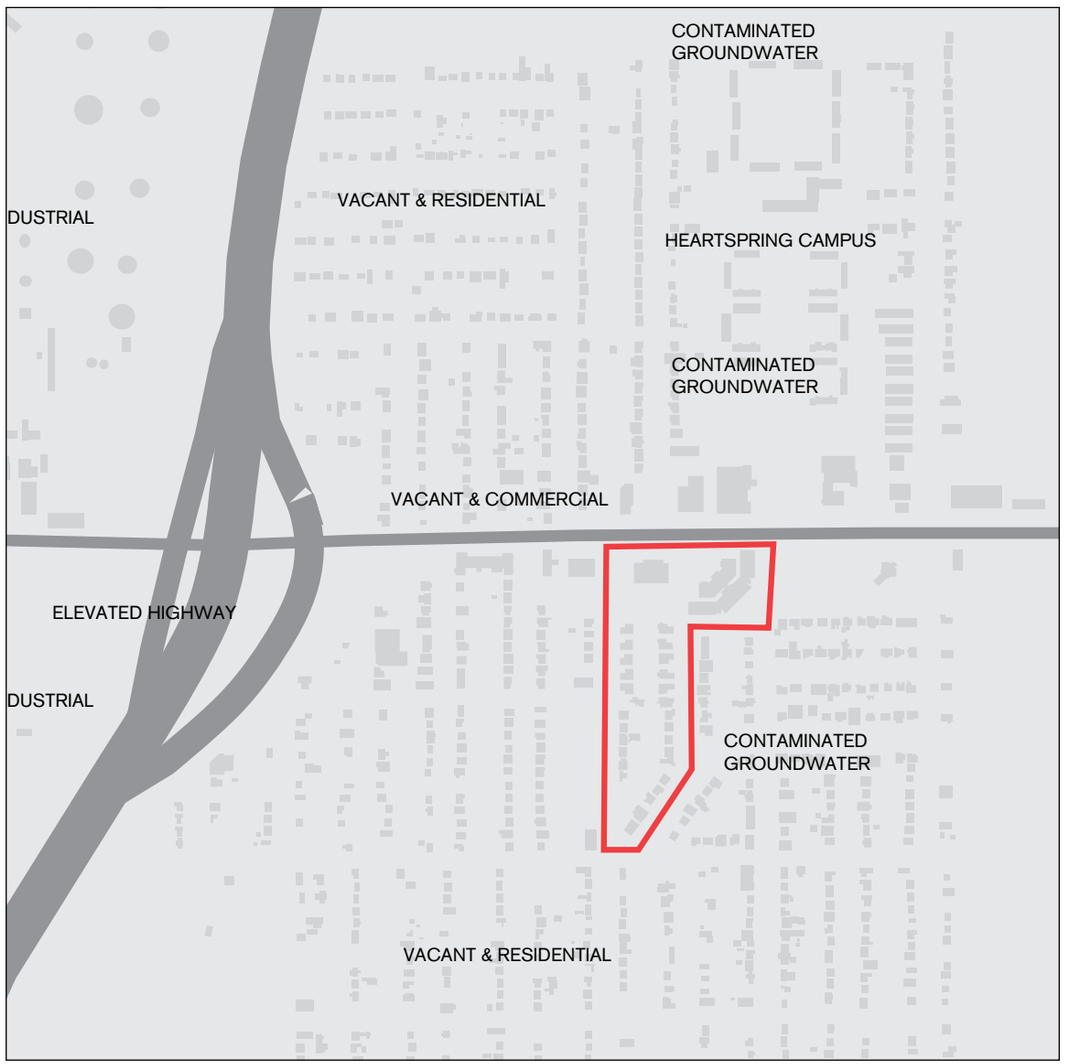
The block is part of Council District 1, which showed a high percentage of incarcerated people in 2004. It is part of Census Tract 7, which counted 3,365 residents in 2000, 90% of whom identified as black or African-American and 28% of whom were living in poverty.

The block is located two blocks east of the Interstate 135 interchange and the 21st Street exit ramp in a neighborhood referred to as Power. It is characterized by detached single-family residences. It lies directly to the south of the Heartspring Campus, and lies within the 29th and Grove contaminated groundwater plume.[16]



Million dollar neighborhood: Wichita, 2004
Prison expenditures calculated by census block.

The area shows scattered residential vacancies to the north, south and west, and considerable vacant commercial and residential land, both indicative of general disinvestment is this area. The I-135 Freeway, known as the Canal Route, carries 95,500 vehicles a day in and out of Wichita's core, and links with three other major highways. Directly to the east of I-135 is industrial land made up of rail lines, a drainage canal, several large facilities, including the El Paso-Derby Refinery, scheduled to be demolished.[17]



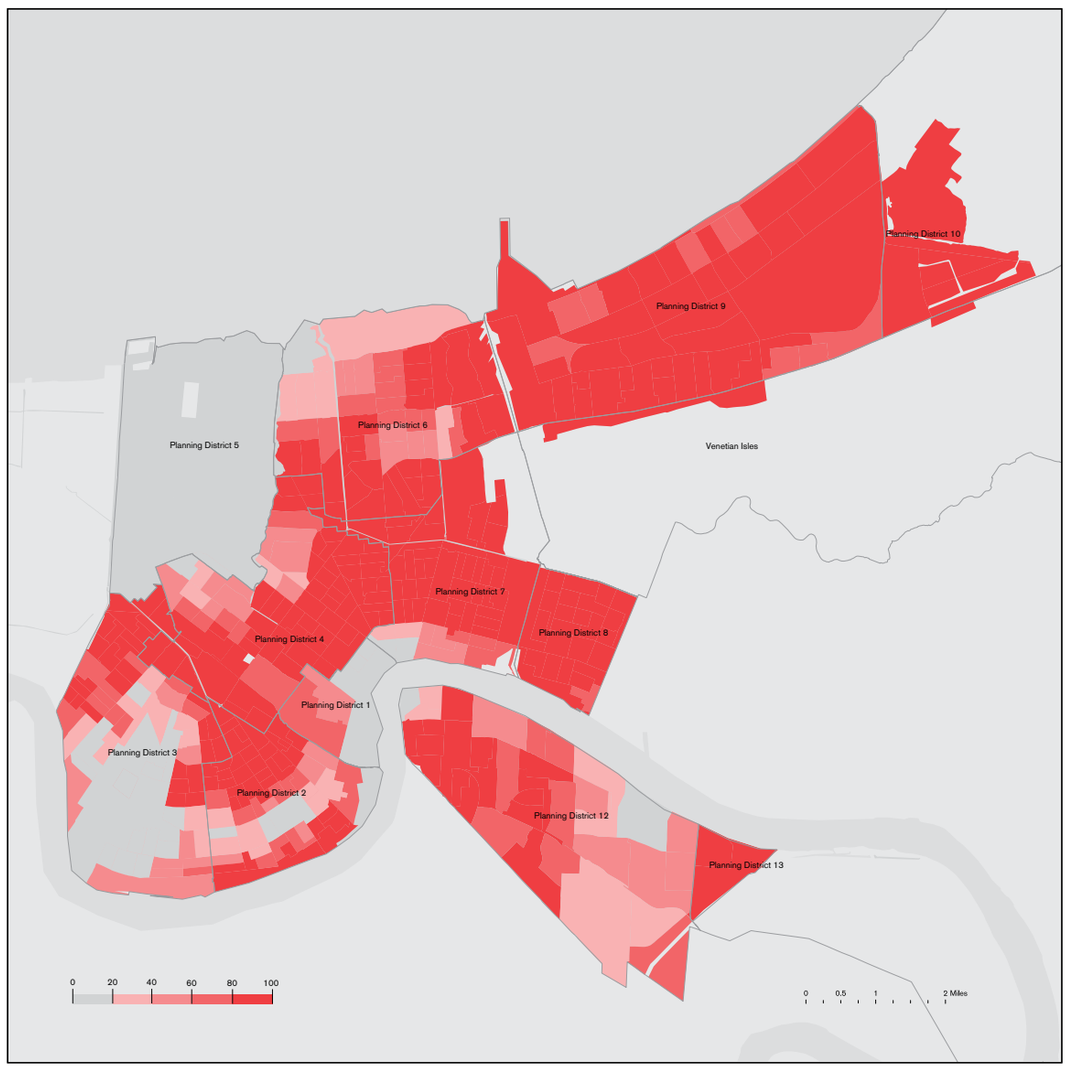
Million dollar neighborhood: Wichita

Google Earth, 2007

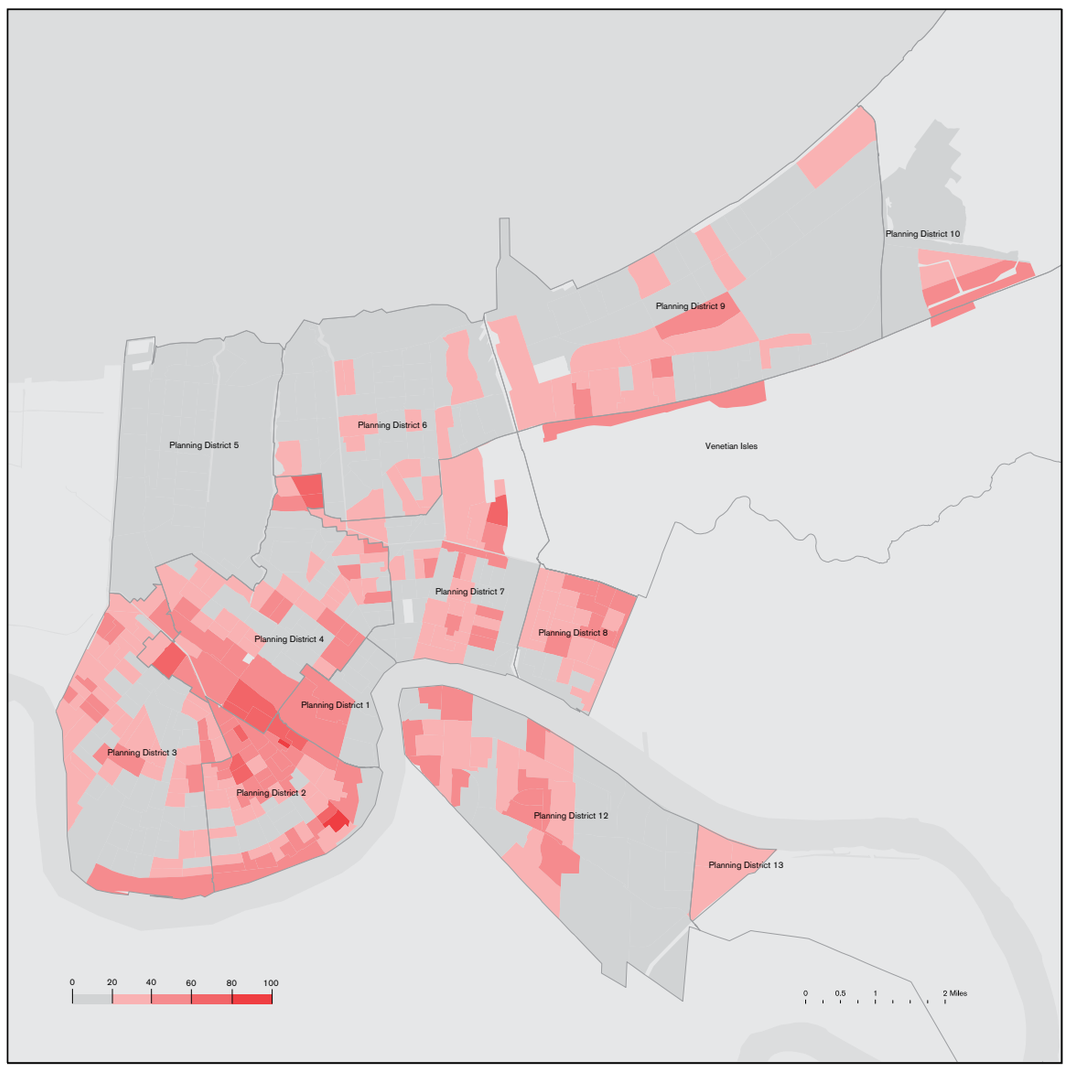
3.
New Orleans, Louisiana

Before Hurricane Katrina, the State of Louisiana had the dual distinction of having the highest incarceration rate in the United States (which has the highest incarceration rate in the world), and one of the most disproportionately black prison populations in the nation.[18] New Orleans residents in particular were migrating between distant prisons, local jails and very few city neighborhoods, in large numbers.[19] In 2003, in an effort to address the fact of racial imbalance and rethink prison spending as a state investment, the Governor convened a task force to consider prison population reduction and high-reentry community investment strategies. Then came Katrina, intensifying in immense proportions what the criminal justice system had been doing for years: displacing high numbers of people, mainly poor and black, from specific parts of the city.

As the city is slowly and unevenly rebuilt and repopulated, the neighborhoods that send high numbers of people to prison are changing, but the pattern remains the same.[20] The places



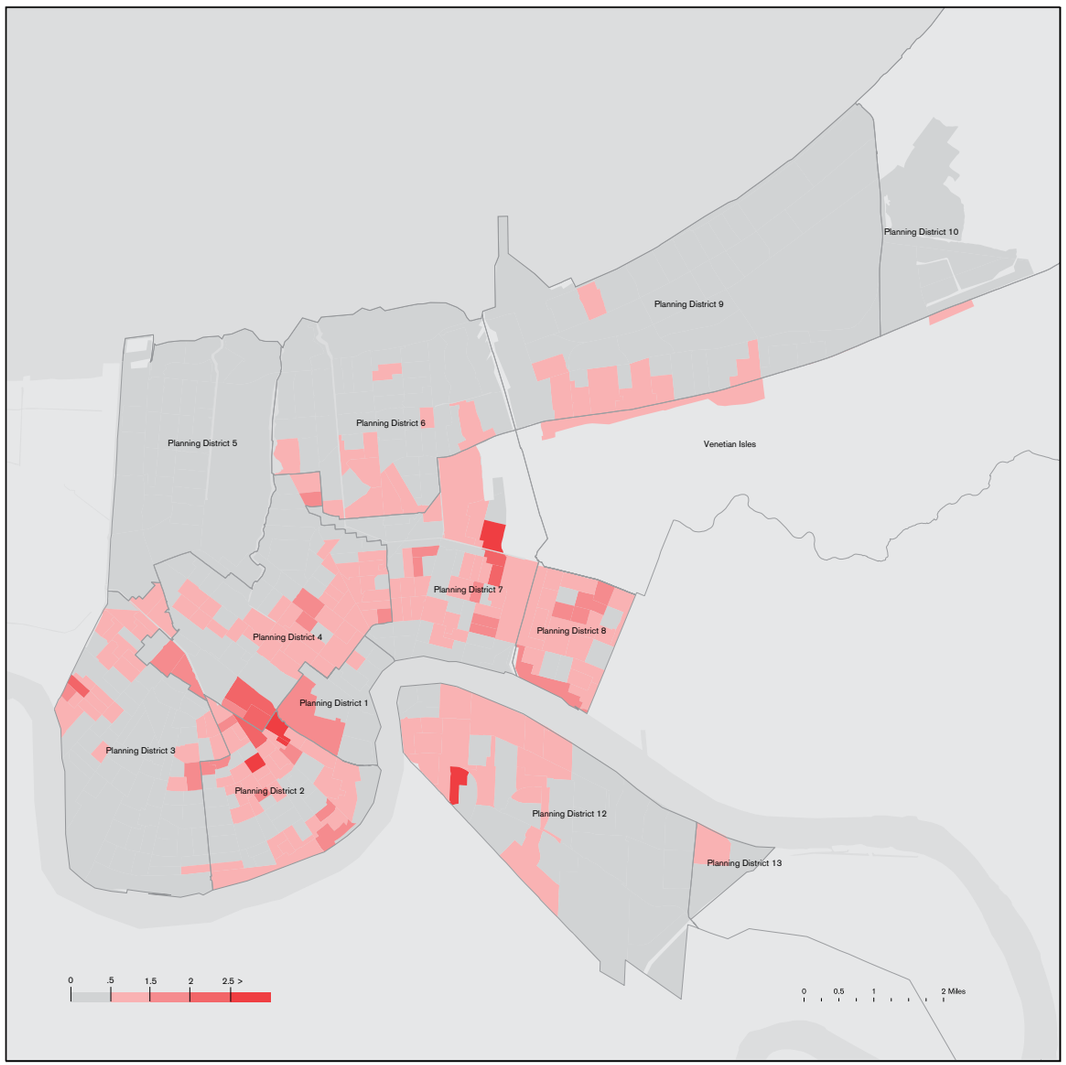
Percent persons of color, 2000



Percent persons below poverty line, 2000

which show high concentrations of incarcerated people are neighborhoods which have long been marked by significant disinvestment. Now, with crime emerging as a major political and social issue, prison admission maps are being used by a research and implementation commission initiated by the City Council to direct investment to high-reentry neighborhoods.

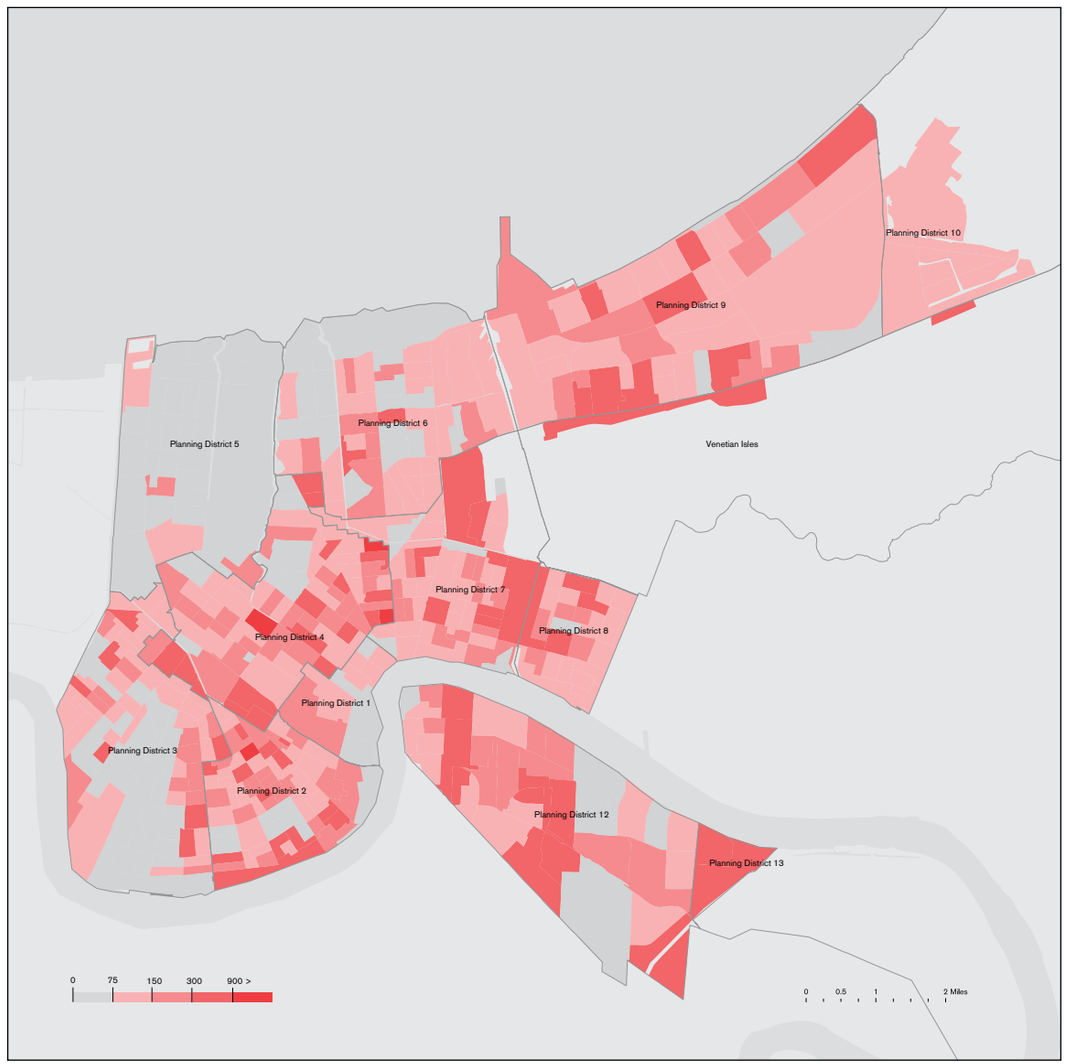
The entire criminal justice infrastructure — not just policing — is being rethought as essential to the rebuilding process.[21] The maps identify places for new investments in education and public space by reinforcing non-profit organizations, community initiatives, and networking successful local institutions.



Percent adults admitted to prison, 2003

Costs of Incarceration

New Orleans Parish had one of the highest rates of incarceration in Louisiana in 2003. In New Orleans Parish, which prior to Hurricane Katrina had a population of 485,000, it cost roughly $42 million that year to incarcerate 1,432 people. 71% of those incarcerated in 2003 were expected to have been released within 1–3 years (although the disruptions associated with Katrina in 2005 make this estimate somewhat uncertain). 15.13% of the people admitted to prison that year from New Orleans were residents of, and will most likely have returned home to, Planning District 2, which housed only 10.07% of New Orleans, total population.[22]



Prison expenditures by block group
in thousands of dollars, 2003

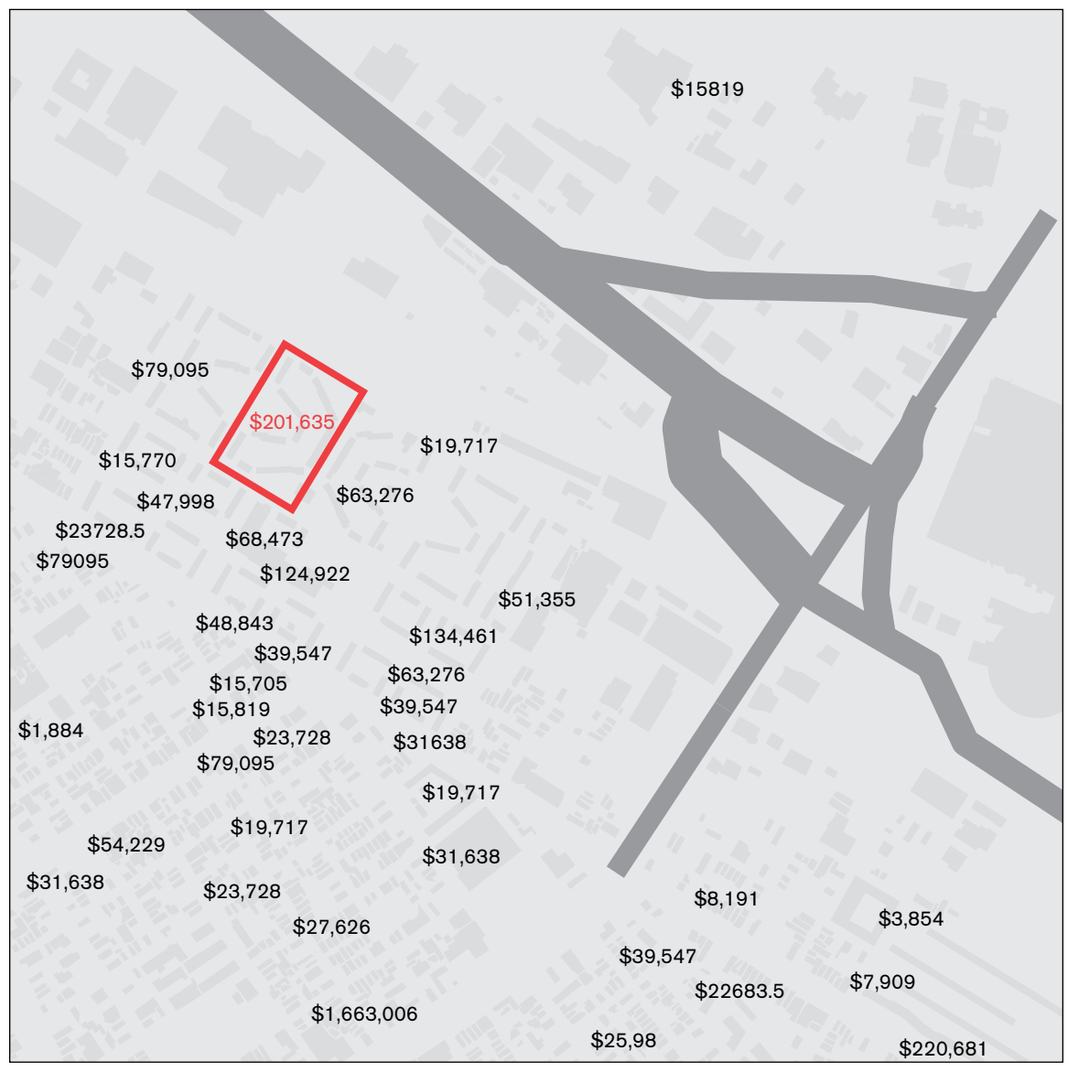
Selected block
High percentage of population people of color
High percentage of population living below poverty line
High percentage of population admitted to prison
City boundary
Major highways
Water

Shaded contours display the highest concentrations of populations living below the poverty line, people of color and people admitted to prison. The selected block falls within Planning District 2.

Landscape of Incarceration

The block is at the intersection of Planning Districts 2 and 4, and also at the intersection of Central City and BW Cooper neighborhoods,[23] both of which showed a high concentration of incarcerated people in 2003. It lies within Census Tract 69, the boundary of the whole of the BW Cooper neighborhood, which counted 4,361 people living there in 2000. 98.4 % of them identified themselves as black or African-American, 69.2% were living below the poverty line, and 57.7% had no high school education.[24]

The area is dominated by Interstate 10 and the contiguous Superdome, a 72,000-seat

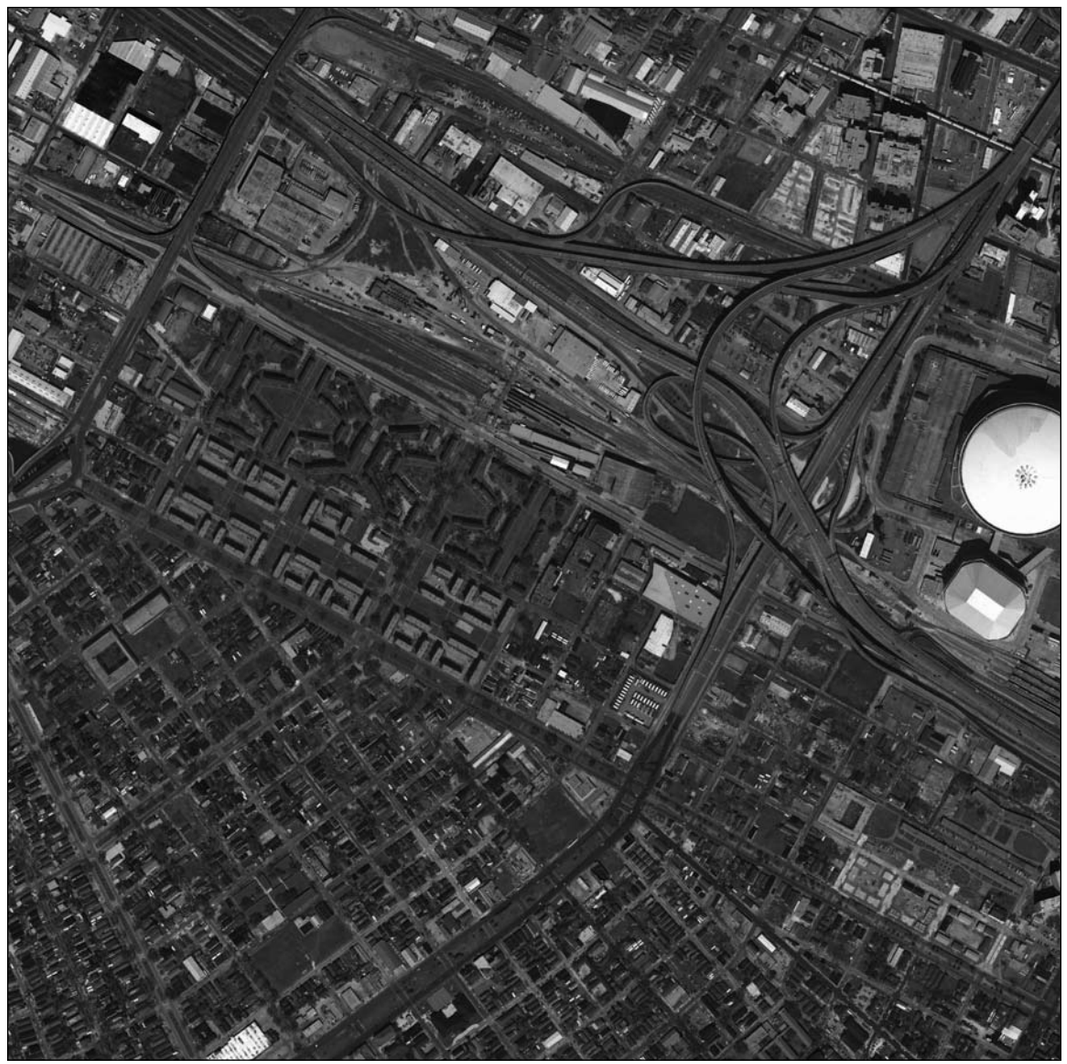


Million dollar neighborhood: New Orleans, 2003
Prison expenditures calculated by census block.

sports facility, both built in 1975. These structures separate the area from the adjoining neighborhoods of Treme and Lafitte to the east. These, along with Central City to its west, had until then been centers of African-American heritage and business in the city. Now, rather than a center, BW Cooper is linked as a neighborhood with Center City through the Hoffman Triangle, one of the low-lying and neglected areas of Planning District 2 prior to Katrina.

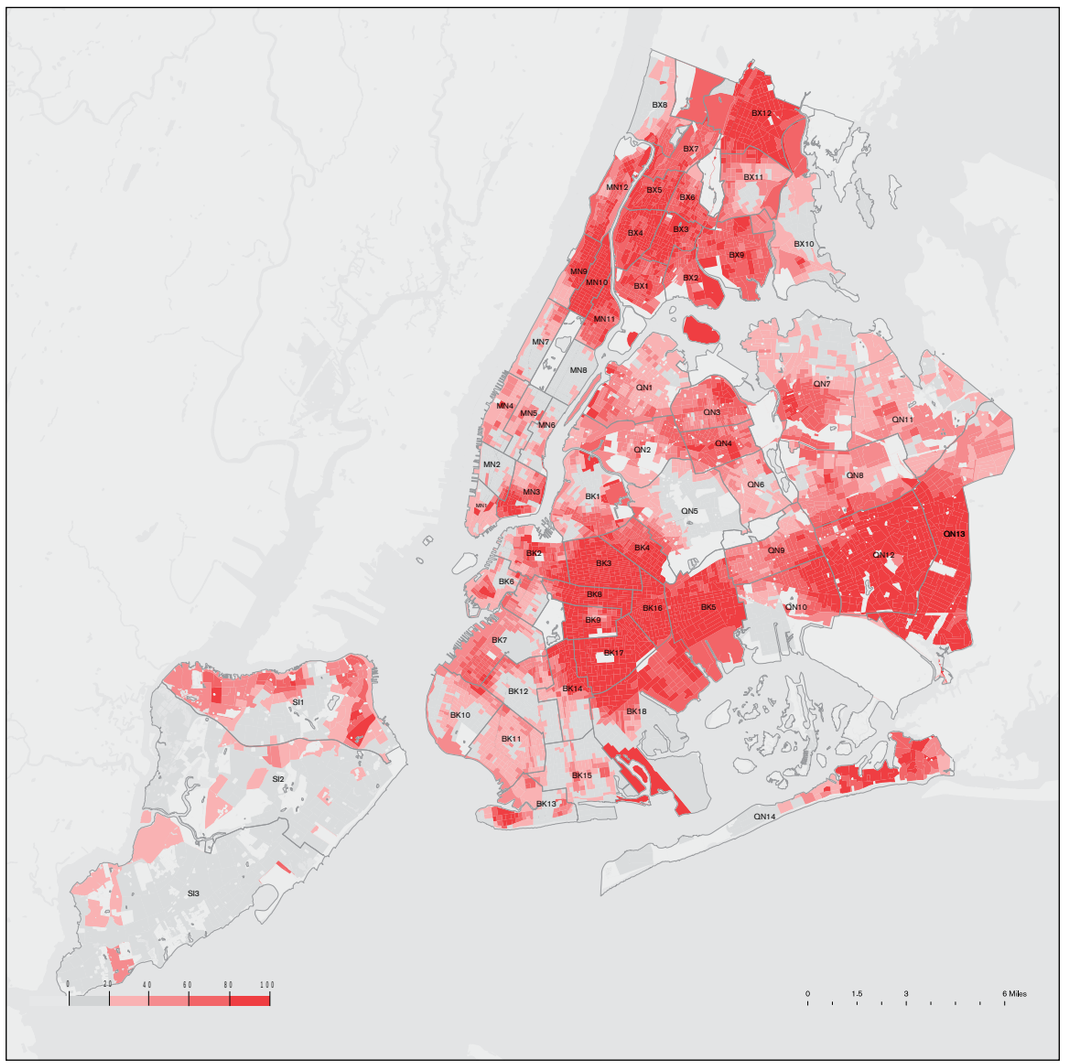
The block itself is known as Calliope, thanks to the 600-unit public housing project of that name built in 1942. In 1954, 860 new units were added to the complex. In 1993 a Hope VI plan was proposed to downsize the project, demolish 337 units, and transform it into mixed-income housing, but it was not realized.[25]

Million dollar block: New Orleans



Google Earth, 2007

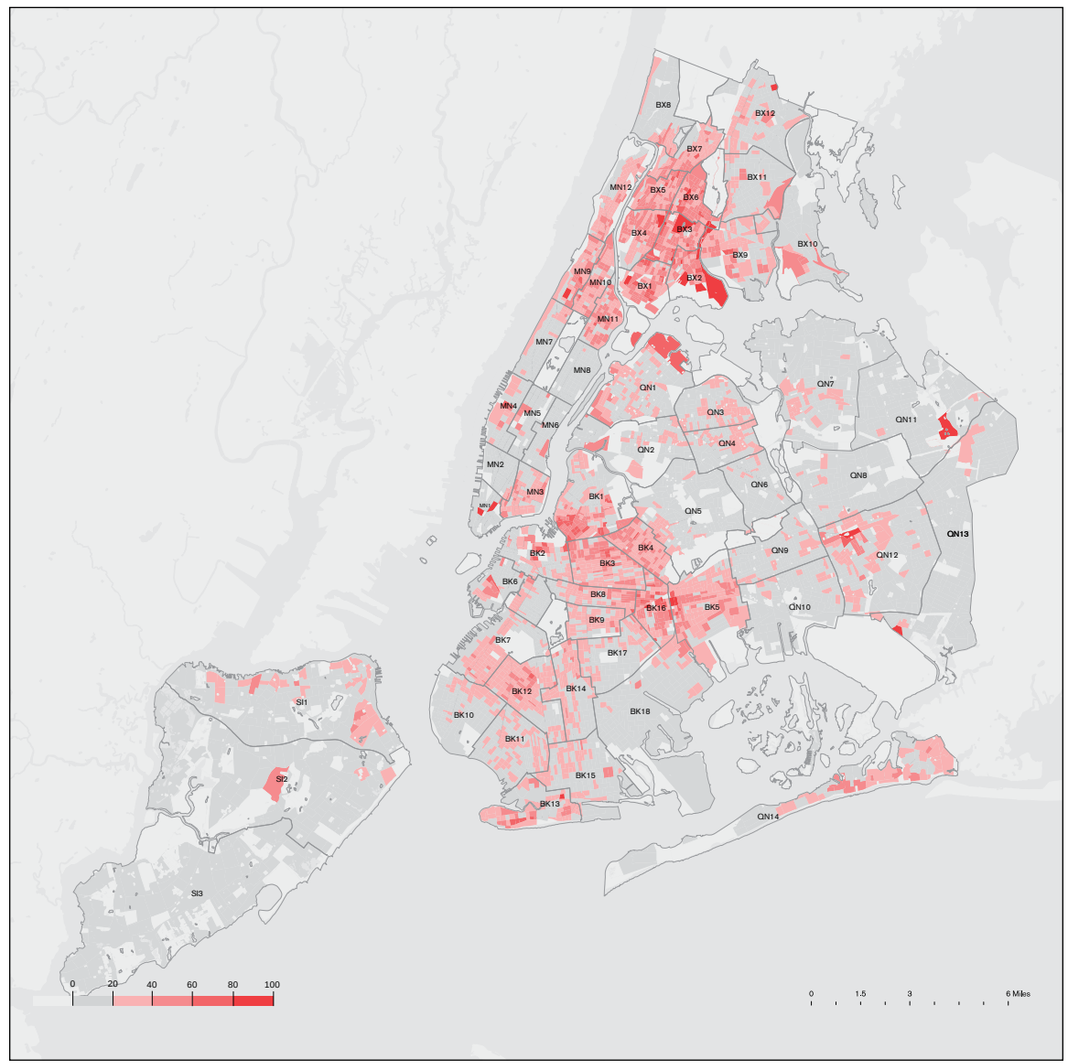
4.
New York, New York



Percent persons of color, 2000

Although prison populations in New York State have been dropping for almost a decade, the burdens of high rates of migration between prison and community continue to fall on just a few neighborhoods in highly disproportionate ways. Prison populations are concentrated in some of the city's poorest neighborhoods, including parts of Harlem, the Bronx, East Brooklyn and Central Queens. Despite the decommissioning of two prisons, none of the savings have found their way back to the city or to these neighborhoods.

This trend may be changing: the City's corrections department is currently involved in a number of efforts to refocus its resources



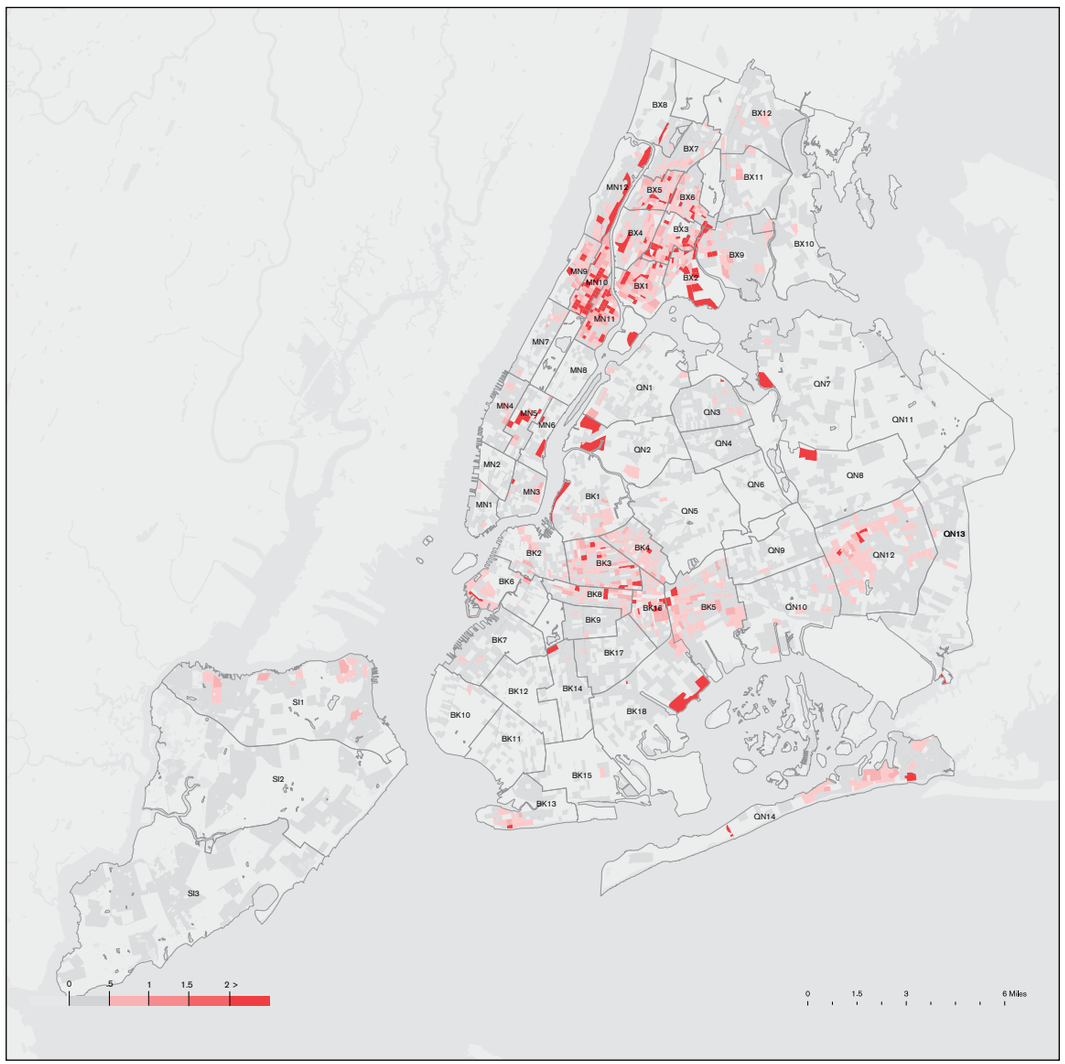
Percent persons below poverty line, 2000

to better serve these neighborhoods. In one instance of “grassroots government,” the City’s Homeless Services Department and the Department of Corrections have pooled resources to find housing for the many jailees who are released into homelessness.[26] They have defined eleven neighborhoods to focus their work, many of which overlap with the districts showing high concentrations of prison and jail admissions.

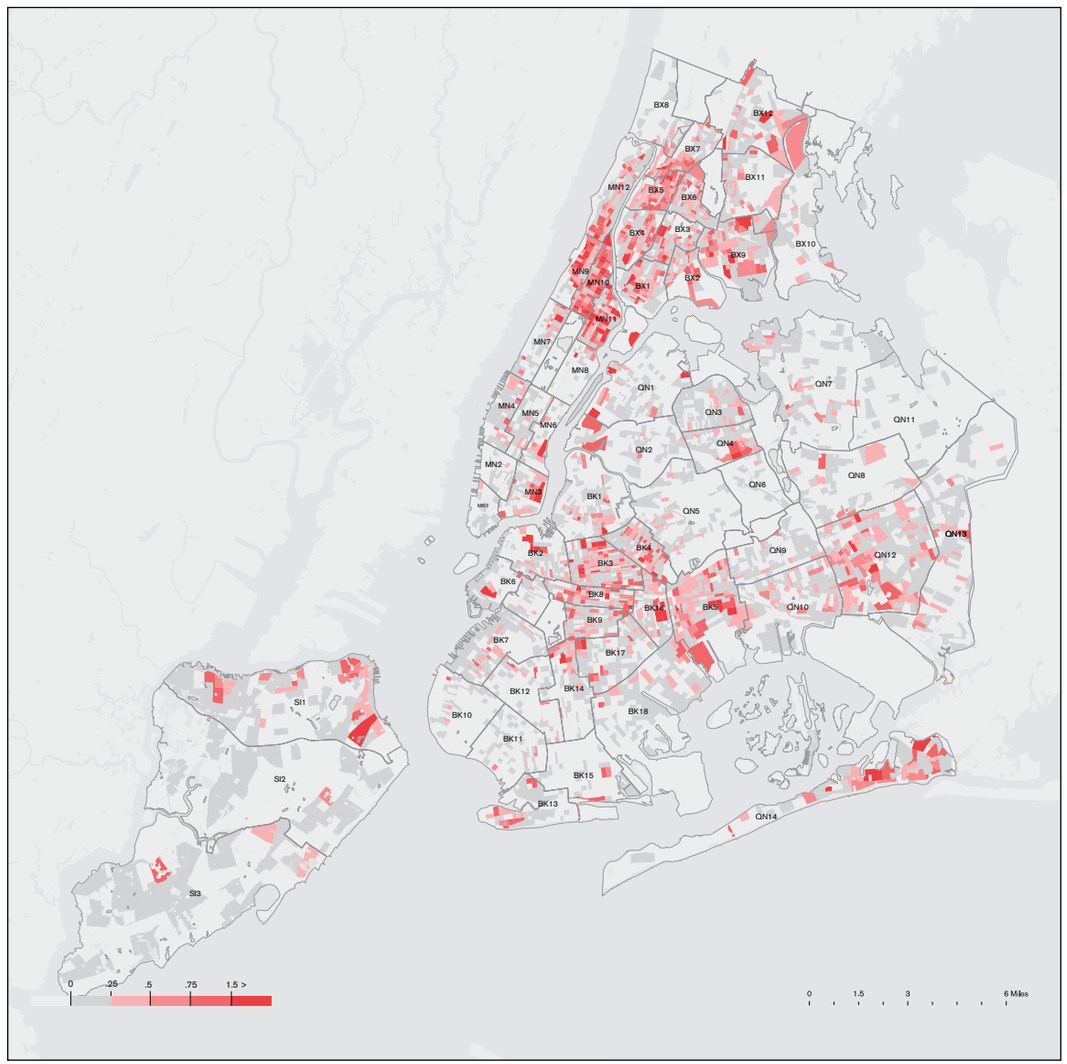
Costs of Incarceration

New York City had the highest rate of incarceration in the State of New York in 2003. In New York City, with a population of just under eight million people in five boroughs, it cost $1.1 billion that year to incarcerate more than 13,200 residents. 55% of those incarcerated from New York City that year will likely be released within 1–4 years.

The Bronx constituted 16.5% of New York City’s total population and 27.98% of its prison admissions in 2003. It cost roughly $228 million that year to incarcerate 3,423 of its residents. 11.11% of the people admitted to prison that year from the Bronx were residents of, and will most likely return home to, Community District 1, which housed only 6.19% of the total population in the Bronx.

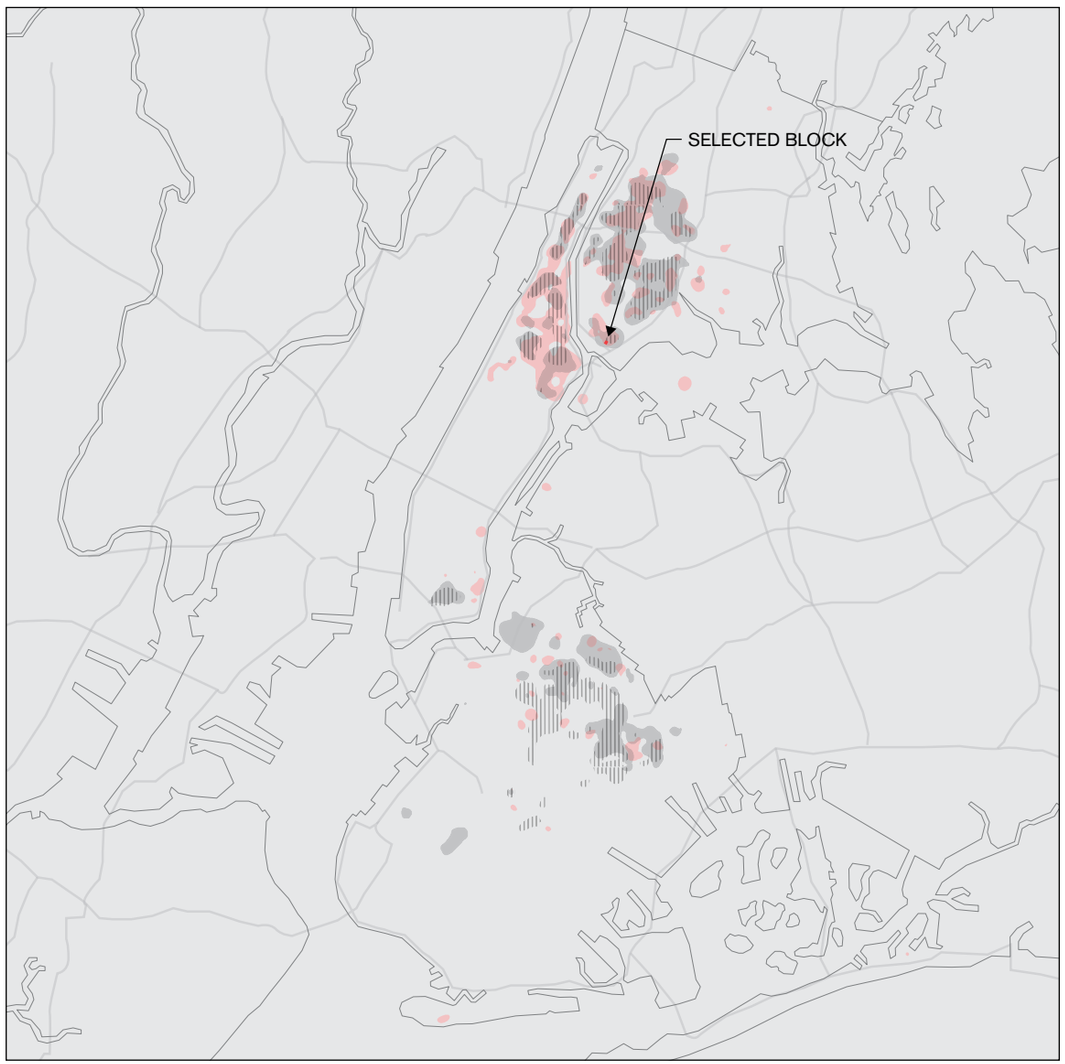


Percent adults admitted to prison, 2003



Prison expenditures by block group
in millions of dollars, 2003

Selected block
High percentage of population people of color
High percentage of population living below poverty line
High percentage of population admitted to prison
City boundary
Major highways
Water



Shaded contours display the highest concentrations of populations living below the poverty line, people of color and people admitted to prison. The selected block falls within the boundary of CD1 in the Bronx.

Landscape of Incarceration

The block is part of Community District 1 in the South Bronx. It is part of Census Tract 230, which counted 5,109 residents in 2000, 79% of whom identified themselves as Hispanic or Latino/a, and 47% of whom were living in poverty.

The neighborhood, known as Mott Haven, is characterized by large-scale transportation infrastructure which connect the South Bronx to the rest of the city via the Triborough Bridge. While the area to the south of the highways is largely industrial, the area to their north is marked by six-story residential buildings interspersed with four public housing projects[27] varying in

Million dollar block: The Bronx, 2003
Prison expenditures calculated by census block.

height from 8 to 16 stories, and some industrial facilities.[28] The highways — together with truck routes, waste transfer stations, and a sewage treatment plant — have been implicated in studies on air pollutant exposures that may be linked to very high asthma hospitalization rates for children in the borough.[29]

The block is located one block to the north of the Major Deegan Expressway,[30] a section of Interstate 87 that divides the mixed-use blocks of Mott Haven from the more industrial neighborhood of Port Morris to the south. It includes four of the nine 16-story buildings in the Mill Brook Houses, a New York City Housing Authority development completed in 1959.

Million dollar block: The Bronx

The 12.38 acre Mill Brook complex, with 3,001 residents in 1,251 apartments, is a typical public housing superblock.

Google Earth, 2007

Conclusions and Questions

We began from the fact that, most of the time, prisoners come home. And the places to which they return can be pictured and analyzed.

We selected four blocks to highlight, blocks which exemplify the extreme social conditions characteristic of the geography of incarceration. In each city, these blocks feature the highest overlapping concentrations of people living in poverty, people of color, and people admitted to prison.

Although we have mapped the home addresses of incarcerated individuals, the cities, not the individuals, are on trial.

The four blocks reveal striking physical similarities from city to city. Elevated highways, industrial areas, large swaths of vacant land, public housing, and questionable environmental conditions combine to define what surrounds and constitutes these residences.

It might seem that we are picturing simply what everyone already knows: that physical isolation is reinforced by economic and racial isolation. Or, is the reverse true: are economic and racial isolation reinforced by physical isolation?

These blocks and their surroundings in Wichita, Phoenix, New Orleans, and New York are physically isolated because of the ways that the land around them is used. The location of the elevated highways and the industrial facilities alongside these residential areas vary from place to place, of course, and produce different degrees and levels of isolation. In every case, the neighborhoods are impoverished. Pockets of poverty and racial isolation continue to prevail in identifiable city neighborhoods across the country. Each city is different, though, with different populations, densities and urban forms of inhabitation and growth. The built environment of poverty and race looks different in each city.

In each case, however, no matter how startling the differences, urban policy responses to poverty and racial isolation have systematically disserved or abandoned the neighborhoods. This disinvestment has been matched by investments in the institutions of the criminal justice system, particularly incarceration, and today it is those institutions which constitute the primary public response to these communities. That response costs millions of dollars per block in some cities, and millions of dollars per neighborhood in others. Even though so much money has been spent, it has done little to change the conditions in these parts of the city. A cycle of incarceration and return predominates in these urban areas, fueled less by neglect than by the direct consequences of policy choices in criminal justice, housing, education, health and the environment.

What are possible ways of catalyzing change? We have investigated cities in which officials are beginning to work and imagine ways out of this cycle. In each case the particular response is different, but they are all exploring how to address people living in these neighborhoods not simply as recipients of one social service or intervention (homeless, poor, sick, hungry, formerly incarcerated, and so on) but rather to integrate and coordinate their responses to the complex overlaps of difficulties which make up so much of life there.

To be effective means taking on social issues as constitutive of the physical city. The question for architects and planners of that city to explore, and to take responsibility for, is the pattern we have identified here. Individual acts of criminal behavior, or even the aggregate phenomenon of crime, do not explain it. Nor do the specific facts of land use, transportation corridors, housing projects, poverty or race. It is an intricate network of people, institutions, planning and policies which has established the pattern.

There is a rich tradition of thinking about, and building, urban forms, a multitude of vocabularies and styles and strategies for reshaping cities. It is time for architects and planners to assess what are conventionally named "urban assets," and ask about the gaps in assets which mark these communities. A lack of opportunity goes hand in hand with a high degree of disinvestment (both public and private) in key civic institutions and urban environments. We need to invest in these parts of the city again, rather than committing massive amounts to address the results of this failure elsewhere. This is a question of design, of policy, of strategic networks and of reprogramming the city.

Notes

1. This research has been collected and distributed in a series of maps and pamphlets, all available online at http://www.arch.columbia.edu/SIDL
2. *Architecture and Justice*, Laura Kurgan et.al, GSAPP/SIDL Publication, 2008
3. See Jennifer Gonnerman, "Million-Dollar Blocks: The neighborhood costs of America's prison boom," *Village Voice*, November 16, 2004
4. *Bureau of Justice Statistics, Prison Statistics: Summary of Findings*, June 2006 http://www.ojp.usdoj.gov/bjs/prisons.htm
5. Petersilia, Joan, "When Prisoners Come Home: Parole and Prisoner Reentry (Studies in Crime and Public Policy)", Oxford University Press, 2003
6. See the publications and project documents from the *Council of State Governments on Justice Reinvestment in Connecticut, Kansas, Louisiana and Rhode Island* at: http://www.csgeast.org/crimreinvest.asp
7. Vera Institute as quoted in Public Safety Performance Project, "Public Safety, Public Spending: Forecasting America's Prison Population, 2007–2011," 2006, pg. 24, at http://www.jfa-associates.com/publications/ppsm/pspp_prison_projections_0207.pdf
8. See, among many others, Michael Jacobson, *Downsizing Prisons*, New York: New York University Press, 2005, 43.
9. *Bureau of Justice Statistics, Prison Statistics: Summary of Findings*, June 2006, at http://www.ojp.usdoj.gov/bjs/prisons.htm
10. Sudhir Venkatesh et al., "A Research Note: The Socio-Spatial Consequences of Inmate Release in New York City," Center for Urban Research and Policy, Columbia University, June 2007, p.9
11. Ibid, p.9
12. City of Phoenix, "Downtown Strategic Vision & Blueprint for the Future," December 2004, at http://phoenix.gov/downtown/strategc.html
13. See: "Phoenix Hosts Groundbreaking Ceremony at Matthew Henson," April 8, 2004, at http://www.phoenix.gov/NEWSREL/ARCHIVE/2004/APRIL/A19_019776.html, and Hope V1 News, Issue no. 2, Summer 2003, at ftp://phoenix.gov/pub/HOPEVI/newsltr3.pdf . The success of this project remains to be evaluated.
14. Telephone interview with Fred Holloway, director of the West Buckeye Unified Neighborhood Association. 27 June 2007.
15. Council of State Governments, "Prisoner Re-Entry and Justice Reinvestment in Kansas," 2006, at http://www.csgeast.org/pdfs/justicereinvest/KS.onepager.FINAL.pdf
16. See Cessna Aircraft Company, "The Cessna Story: 21st Street Program," at "http://cessna.com/story/21street.chtml" http://cessna.com/story/21street.chtml
17. City of Wichita, Planning Department, "21st Street North Corridor Revitalization Plan," December 2004, at http://www.wichitagov.org/CityOffices/Planning/AP/NR/21stStNorthPlan.htm.
18. *Public Safety, Public Spending. iii.*
19. On the unusual numbers and conditions of prisoners in Louisiana local jails, see Jacobson, 204.
20. See Laura Maggi. "Unusual crime study finds bad guys' roots," *The Times-Picayune*, 11 August 2007, SIDL report: *Justice Reinvestment: Central City New Orleans. Linking Prisoner Reentry to Rebuilding Community in Post-Katrina New Orleans*, available at http://arch.columbia.edu/SIDL
21. Ibid, SIDL report.
22. U.S. Census Bureau 2001. "New Orleans" here corresponds precisely with the boundaries of Orleans Parish. The population of New Orleans is almost half of the total population of 1,338,000 of the New Orleans-Metairie-Kenner Metropolitan Statistical Area. For estimates about the current and future population of New Orleans, see *Rand Gulf States Policy Institute*, "The Repopulation of New Orleans After Hurricane Katrina," 2006, at: http://www.rand.org/pubs/technical_reports/2006/RAND_TR369.pdf
23. Neighborhoods are not always clearly defined by political boundaries. We have travelled slightly outside of the boundary of Planning District 2 to compensate for what our density maps revealed: Central City, within Planning District 2 and its neighboring Calliope, accounted for the densest incarceration rates in 2003 — housing 4.9% of the population of New Orleans, and 11.7% of its prison population.
24. The 2000 statistics might be the last ones to have been gathered on the BW Cooper neighborhood. Since Katrina, residents of New Orleans housing projects have been barred from returning, and BW Cooper is only partially open. Unless residents and lawyers prevail, the City will demolish the BW Cooper housing complex as well as three others in the New Orleans area, in order to replace them with lower density, mixed income housing, another example of the shrinking footprint of public housing in the United States.
25. U.S. Department of Housing and Urban Development, Public and Indian Housing, FY 2002 HOPE VI Demolition

Grant Applicants List, at http://www.hud.gov/offices/

pih/programs/ph/hope6/grants/demolition/02/2002dg_applicants.cfm. In 2002 the City of New Orleans applied for Hope VI grants for the Fischer, the Desire, the Florida and the Guste Housing Projects. The Florida and the Guste redevelopments were different stages of completion before Katrina in 2005.

26. This phrase comes from Richard Cho, "Putting the Pieces Back Together: Overcoming Fragmentation to Prevent Post-Incarceration Homelessness," paper submitted to Housing and Criminal Justice Policy in New York City, A Research and Practice Symposium, Columbia University, Center for Urban Research and Policy, March 2004.

27. As a result of the 1949 Housing Act, Community District 1 in the Bronx received federal funding for slum clearance of older neighborhood residences and New York City Housing Authority built a large number of high-density high-rise apartment buildings in Mott Haven in the 1950s and 1960s.

28. The area included in these maps is very close to the boundaries of a map illustrating Joseph Berger, "Goodbye South Bronx Blight, Hello SoBro." *New York Times*, 24 June 2005. The map is online at: http://graphics8.nytimes.com/images/2005/06/24/nyregion/24BRONX_MAP_lg.gif. The area has undergone a significant transformation to the north of the block on which we are focusing. The area very close to the highway, however, has shown few signs of change characteristic of the northern parts of the south Bronx closer to the HUB, a business improvement district.

29. See Institute for Civil Infrastructure Systems, New York University, "South Bronx Environmental Health and Policy Study," 2006, at http://www.icisnyu.org/south_bronx/index_001.html" http://icisnyu.org/south_bronx/index_001.html

30. The Major Deegan Expressway, including service roads, is the second-most traveled Bronx-Westchester highway, with a daily volume of 121,600 vehicles. See New York City, Department of Transportation, "2005 New York City Screenline Traffic Flow report," at http://www.nyc.gov/html/dot/pdf/nycscrlnrpt05.pdf

Data Sources

Prison admissions data through the Justice Mapping Center from the Arizona Department of Corrections (2004), Kansas Department of Corrections (2004), Louisiana Department of Public Safety and Corrections (2003), and New York State Division of Criminal Justice Services (2003). The data source agencies are not responsible for the accuracy of the maps or the conclusions of the authors, who themselves take sole responsibility.

Colophon

Graphical Innovations in Justice Mapping is the first project of the Spatial Information Design Lab which was founded in 2004 as an interdisciplinary research unit in the Graduate School of Architecture, Planning, and Preservation at Columbia University. The project is collaboration between the Justice Mapping Center, the Spatial Information Design Lab and the JFA Institute.

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