

PLACE MATTERS FOR HEALTH IN ORLEANS PARISH:

Ensuring Opportunities for Good Health for All

A Report on Health Inequities in Orleans Parish, Louisiana

**PREPARED BY THE
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**IN CONJUNCTION WITH THE
CENTER ON HUMAN NEEDS, VIRGINIA COMMONWEALTH UNIVERSITY
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FOREWORD

Place matters for health in important ways, according to a growing body of research. Differences in neighborhood conditions powerfully predict who is healthy, who is sick, and who lives longer. And because of patterns of residential segregation, these differences are the fundamental causes of health inequities among different racial, ethnic, and socioeconomic groups.

The Joint Center for Political and Economic Studies and the Orleans Parish PLACE MATTERS team are very pleased to add to the existing knowledge base with this report, “Place Matters for Health in Orleans Parrish: Ensuring Opportunities for Good Health for All.” The report, supported by a grant from the National Institute on Minority Health and Health Disparities (NIMHD) of the National Institutes of Health, provides a comprehensive analysis of the range of social, economic, and environmental conditions in Orleans Parish and documents their relationship to the health status of the Parish’s residents.

The study finds that social, economic, and environmental conditions in low-income and non-white neighborhoods make it more difficult for people in these neighborhoods to live healthy lives. Among the study’s key findings are that life expectancy in the Parish varies by as much as 25 years depending on the zip code. Zip codes with the lowest life expectancy tend to have a higher percentage of people of color and low-income residents. Community-level risk factors, such as high concentrations of people living in poverty, overcrowded households, households without a vehicle, and vacant housing are among the factors that predict health inequalities in the Parish.

The overall pattern in this report – and those of others that the Joint Center has conducted with other PLACE MATTERS communities – suggests that we need to tackle the structures and systems that create and perpetuate inequality to fully close racial and ethnic health gaps. Accordingly, because the Joint Center seeks not only to document these inequities, we are committed to helping remedy them. Through our PLACE MATTERS initiative, which is generously supported by the W.K. Kellogg Foundation, we are working with leaders in 24 communities around the country to identify and address social, economic, and environmental conditions that shape health. We look forward to continuing to work with leaders in Orleans Parrish and other communities to ensure that every child, regardless of their race, ethnicity, or place of residence, can enjoy the opportunity to live a healthy, safe, and productive life.

Ralph B. Everett
President and CEO
Joint Center for Political and Economic Studies



EXECUTIVE SUMMARY

Place matters for health in important ways. Differences in neighborhood conditions powerfully predict who is healthy, who is sick, and who lives longer. And because of patterns of residential segregation, these differences are the fundamental causes of health inequities among different racial, ethnic and socioeconomic groups.

This study examined the relationships between place, race and ethnicity, and health in Orleans Parish, LA,ⁱ and attempted to address specific questions raised by the Orleans Parish Place Matters Team:

- What is the relationship between community levels of individual indicators of socioeconomic status and educational attainment?
- What is the relationship between the level of individual indicators of socioeconomic status and the rate of risk behaviors?
- What is the relationship between socioeconomic status and health outcomes?
- What effect did Hurricane Katrina and its resultant displacement have on the rate of risk behaviors?

The study found that:

- Life expectancy in the poorest zip code in the city is 54.5 years, or 25.5-years lower than life expectancy in the zip code with the least amount of poverty in the city, where it is 80.
- Heart disease mortality in the poorest zip code in the city is almost five times higher than the next highest rate in the city.
- The mortality rate for black residents of Orleans Parish in 2007 was 1½ times the mortality rate for white residents.
- There is a wide difference across census tracts in the community-level risk index, which was calculated by combining measures of population below 150% of the Federal poverty level, overcrowded households, households without a vehicle, and vacant housing.
- Areas with the highest community risk indexes have significantly higher heart disease and stroke mortality rates.
- The lowest levels of educational attainment by census

tract (as many as 72% of residents without a high school education) correlate with the highest levels of community risk factors and the lowest life expectancy rates.

- Higher violent crime rates are associated with areas that have higher rates of repopulation since Hurricane Katrina and lower levels of educational attainment.

The overall pattern suggests that socioeconomic conditions in low-income and non-white neighborhoods make it more difficult for people in these communities to live healthy lives. And while there is a strong moral imperative to enact policies to improve health for all, there also is a powerful economic incentive. A study released by the Joint Center for Political and Economic Studies in 2009 found that direct medical costs associated with health inequities among African Americans, Hispanics, and Asian Americans approached \$230 billion between 2003 and 2006. When indirect costs, such as lowered productivity and lost tax revenue resulting from illness and premature death, were included, the total cost of health inequities exceeded \$1.24 trillion. Thus, for both moral and economic reasons, we must address health inequities and their root causes now.

In the context of these findings, the Orleans Place Matters Team has chosen to focus its recommendations on keeping children in quality schools and in providing access to educational services for youth and adults who have been out of school for significant periods of time. Consistent with this focus, the Place Matters Team offers the following recommendations:

Keeping Students in School and Out of Prison

- Develop a centralized/uniform expulsion policy among charter and non-charter schools within Recovery School District and New Orleans Public Schools.
- Provide standardized training for school resource officers, security guards or school-based police officers.
- Institutionalize a bi-annual external review of expulsions and long-term out of school suspensions (over one day).
- Eliminate the practice of expulsion in the primary grades with exception of use or attempted use of a deadly weapon.
- Offer alternatives to incarceration including *school-based* teen courts, peer mediation programming, and restorative justice programming.
- Create greater disincentives to expel or suspend students for more than one day. Suspensions and expulsions should be weighted against a school's performance score.

ⁱ We should note that the terms Orleans Parish and New Orleans are used interchangeably in this report. In all cases reference is only to Orleans Parish and not to any of the other parishes that are generally associated with the New Orleans metropolitan area.

- Make homework services mandatory for all out of school suspensions and expulsions.
- Conduct an annual formal assessment of the needs of truant and youth who would qualify as “disconnected.”

Providing Opportunities for Those Who Have Been Incarcerated

- Fund and create reentry programs that meet the needs of the New Orleans metro area.
- Provide educational services (at least GED prep) in all correctional facilities.
- Decrease the cost of an expungement to levels that show significant increases in the expungement completion rate.
- Many individuals who request an expungement have low-level drug offenses, such as possession of marijuana, first offense.ⁱⁱ Youth offenders of low-level drug offenses should receive an alternative to incarceration and mandatory drug counseling. Upon completion those records should be destroyed.
- Automate the removal of criminal records after 10 years.
- Provide free expungement services to the formerly incarcerated by offering monthly bazaars.

Addressing Mental Health Needs of Youth and Families

- Create an automatic mental health referral system for students who receive more than two disciplinary actions per semester (half-year).
- Increase schools’ and families’ fiscal capacity to make school-based mental health services available to students.
- Increase the number of inpatient beds for adolescents and provide transitional services such as counseling and outpatient therapy.
- Make assurances that schools dedicate appropriate resources to social-emotional wellness.

Developing Student Centric Policies

- Authorize system-wide student satisfaction surveys that incorporate students as researchers.
- Develop peer health educators that conduct school climate studies, which include health and mental

health assessments, social emotional wellness batteries and in-school needs assessments.

- Ensure that per-pupil expenditures follow children to traditional and non-traditional educational settings.
- Ensure that state allocations to supportive services are placed at levels that meet the needs that are assessed by students in traditional and non-traditional settings.
- Formalize ethnic studies programs in schools that receive public funding.

ⁱⁱ La. Rev. Stat. Ann. §40:966(D)(1).

Social Determinants of Health and Crime in Post-Katrina Orleans Parish

INTRODUCTION

Place matters for health, and according to many, is more important than access to health care and health-related behaviors. This is the startling conclusion of a large and growing body of public health research, including this report. This research demonstrates that neighborhood conditions, often referred to as social determinants of health, have powerful direct and indirect influences on health, frequently operating in ways over which individuals have little control. The research further indicates that unhealthy neighborhood conditions tend to cluster adjacent to one another and most often in minority and low-income neighborhoods. According to many leading scholars, this is a root cause of health inequities between racial, ethnic, and socioeconomic groups.

In Orleans Parish, LA, people living in neighborhoods characterized by poor housing, inadequate schools, polluted environments, insufficient transportation, and lack of safety typically have significantly poorer health than people living in neighborhoods that don't suffer from these characteristics. They also have higher rates of poverty and of low birth-weight infants, as well as a lower life expectancy. Historical patterns of racial and class discrimination have contributed to the location of vulnerable populations in neighborhoods that exhibit these sub-standard characteristics.

Data on a national scale indicate that neighborhoods shape the health of individuals in many ways.

- Neighborhood conditions such as the level of crime and violence not only increase the risk of injury and death, they also increase the stress levels of even those who are not directly victimized, which in turn can lead to premature aging and other stress-related illnesses.
- Neighborhoods can also directly influence health through environmental degradation and exposure to air, water, and soil pollution. These include risks such as exposure to lead paint in homes, which can lead to permanent cognitive and behavioral impairment in young children, or molds, rodents, and insects, which are associated with asthma and other health problems. Children are also at greater risk for having asthma if they live in communities that have high levels of air pollution.
- Neighborhood characteristics also shape health indirectly. For example, research has shown that when fresh produce and healthy foods are readily available, people are more likely to report eating a healthy diet. On the other hand, when low-cost but nutritionally

poor fast-food is close at hand, residents have fewer and poorer nutritional options, leading to higher rates of obesity and related illnesses.

- The likelihood that neighborhood residents will be able to exercise or enjoy an active lifestyle is also powerfully shaped by community characteristics. In neighborhoods that aren't safe or where residents are fearful and distrustful, people find it harder to bike, jog, or play outdoor sports.

Other factors which we don't typically think of as affecting people's health, such as the quality of schools, also powerfully shape health. Among the best predictors of a person's health is a person's educational level. In other words, generally speaking, the better educated a person is, the more likely he or she will have a better job and access to health care; thus, he or she is more likely to be healthy. But too many children in the United States live in poor neighborhoods and are stuck in schools that have high drop-out rates, outdated textbooks, crumbling facilities, teachers who are poorly prepared to teach the subjects they teach, and a woeful lack of resources. As a result, these children are more likely to receive an inadequate education, are less prepared for many of life's challenges, and are at greater risk of poor health.

The quality of transportation also affects a community's health. Good public transportation can minimize environmental health threats while at the same time encouraging economic growth by linking people with jobs, goods, and services.

Despite these problems, the communities most disadvantaged from a health standpoint are also the same communities where the greatest gains can be made to improve the community's health. In doing so, we can also improve the health of surrounding communities. By working together to reduce the concentration of health risks and by increasing health-enhancing resources, we can give all residents of Orleans Parish a better chance to live healthy lives.

Part I of this report provides background information about New Orleans, including population data, socioeconomic conditions, community characteristics, a community risk index, and health outcomes. Part II examines the relationship between socioeconomic status, educational attainment and health outcomes. Part III investigates the relationships between demographic, social and economic characteristics and crime, including the relationship between Hurricane Katrina and its resultant displacement had on the rate of risk behaviors. Part IV presents conclusions from the analyses. Appendix A presents detail about the data and methods that were used in preparing this report.

I. Background: Population, Community Characteristics, Education, and Health in New Orleans

Population

Orleans Parish, located in southeastern Louisiana, is home to the city of New Orleans and a population of 354,850. The overall population density in Orleans is 1,761.2 people per square mile, but ranges by census tract from 44.92 in the relatively sparsely-populated Lake Catherine area in the eastern

portion of the Parish to over 18,000 in the densely-populated Central City in the western portion. (see Map 1).

Orleans Parish has a much larger proportion of non-Hispanic blacks than the rest of the nation (61.2%, compared to 12.4%, nationally) making the white population the minority in the Parish (see Table 1). According to 2009 American Community Survey Data, an estimated 5.8% of the population is foreign born, slightly higher than the percentage in Louisiana, but much lower than the national percentage (3.1% and 12.5% respectively).

Map 1: Population Density by Census Tract

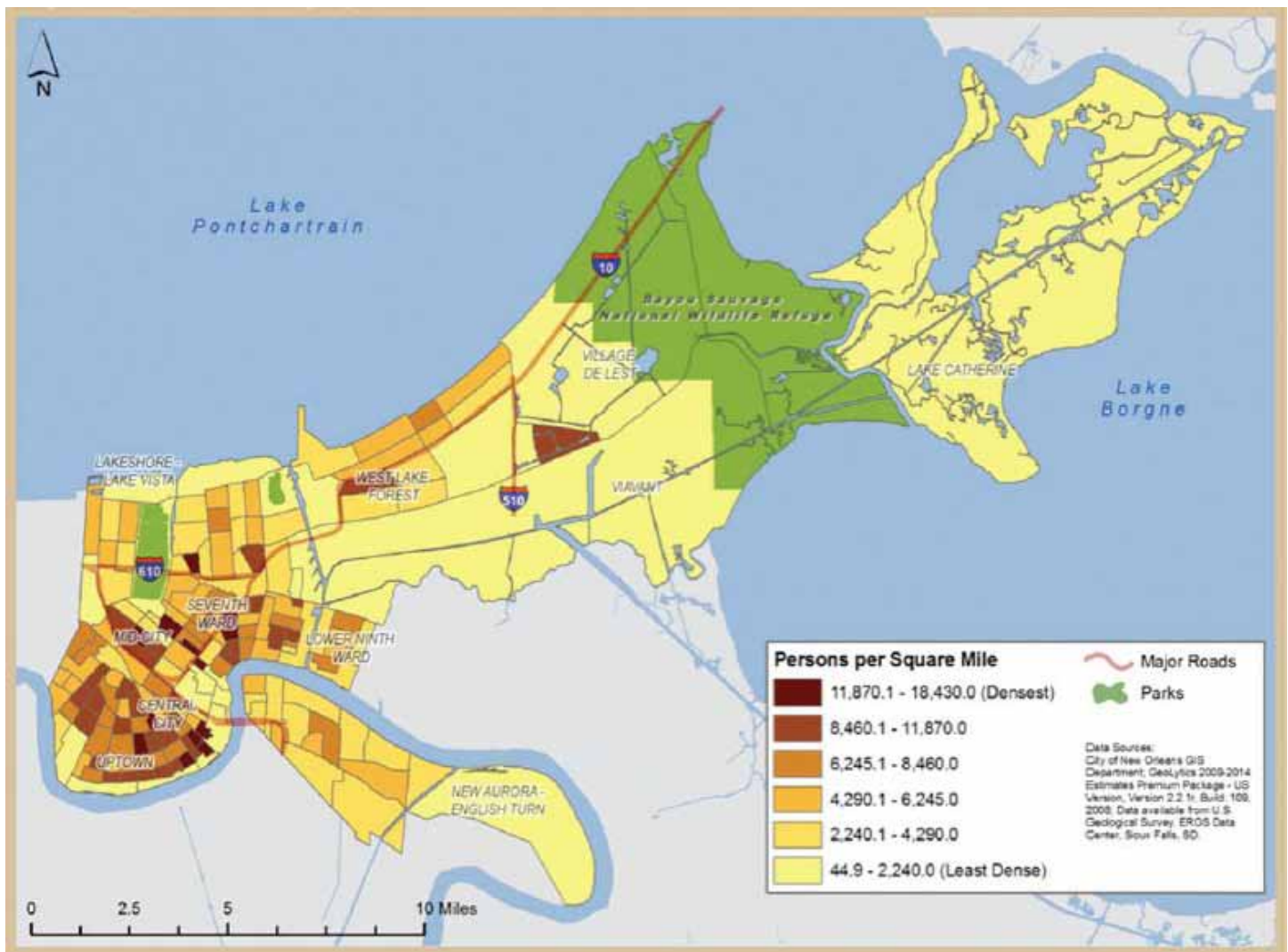


Table 1. Demographic Characteristics of Orleans Parish, State of Louisiana, and United States

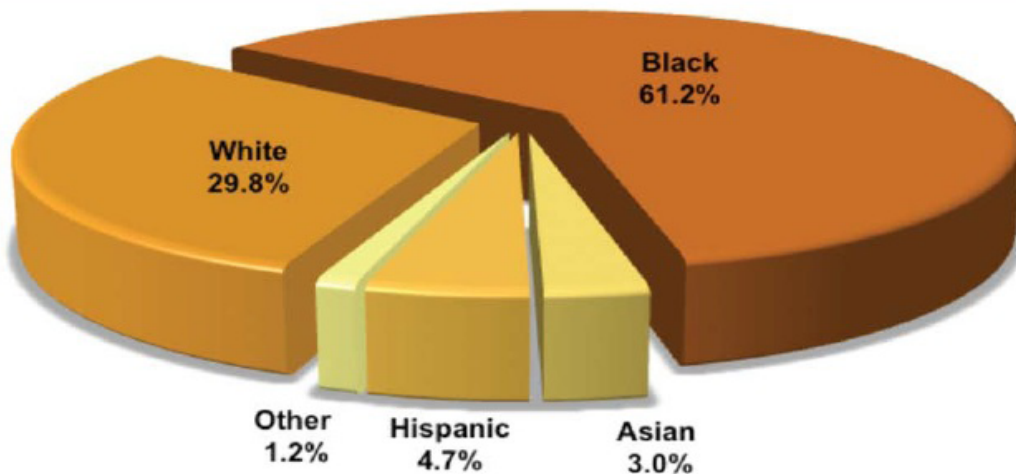
	Orleans Parish	Louisiana	United States
Population (2009)_(a)	354,850	4,492,076	307,006,556
Population Density (2000)_(b)	1,761.2	98.2	86.7
Race/Ethnicity (2009)_(a)			
White	29.8%	61.3%	64.9%
Black	61.2%	31.8%	12.4%
Asian	3.0%	1.5%	4.5%
Hispanic	4.7%	3.6%	15.8%
Other	1.2%	1.8%	2.4%
Foreign Born (2009)_(a)	5.8%	3.1%	12.5%

(a) Source: U.S. Census Bureau, 2009 American Community Survey

(b) Source: 2009 Geolytics Projection

Note: "Other" includes Two or More Races, American Indian and Alaskan Native, Native Hawaiian and Other Pacific Islander, Some Other Race. Racial groups include the Non-Hispanic population only; Hispanic can include any racial group.

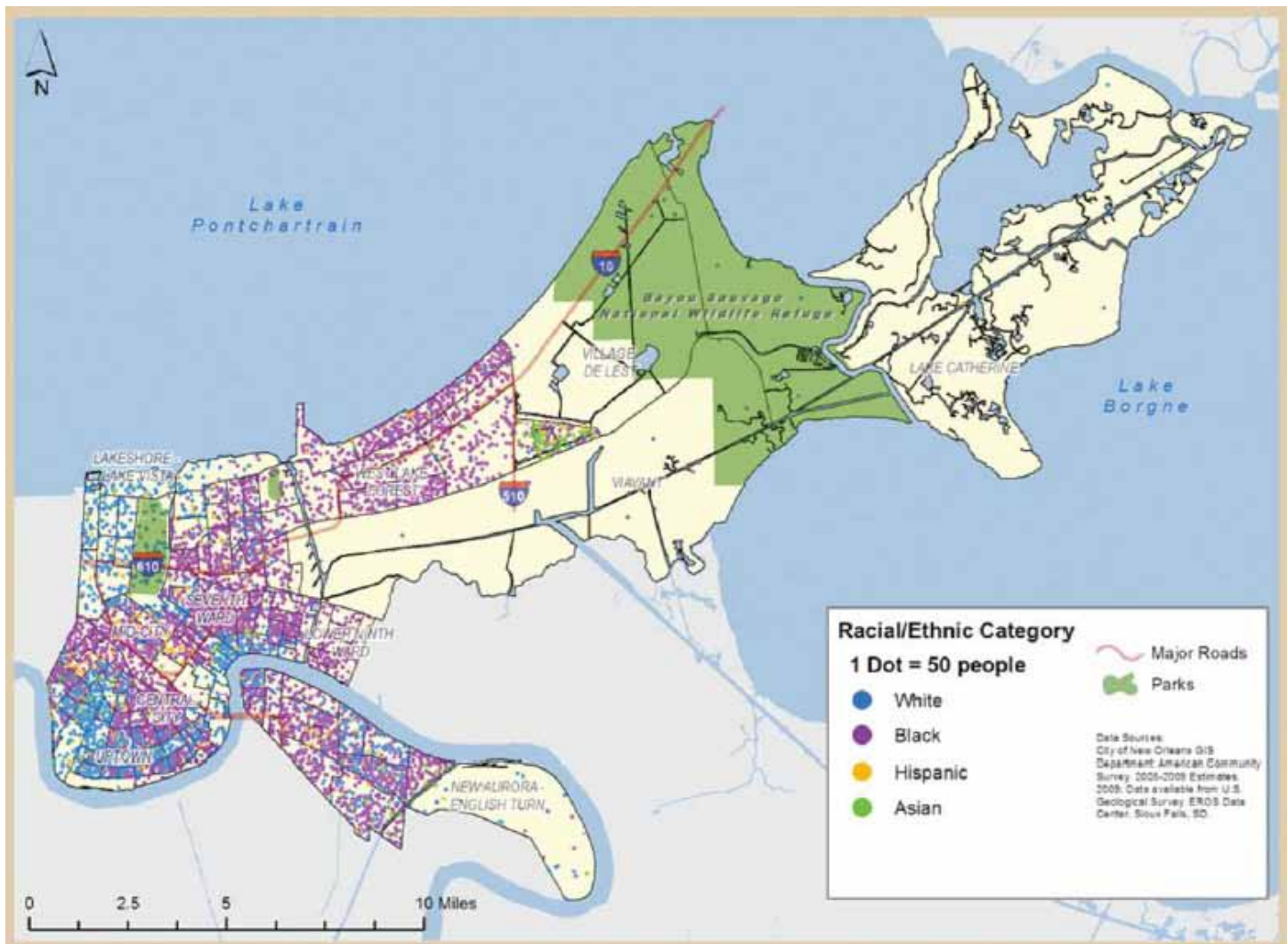
Figure 1: Race and Ethnicity in Orleans Parish, Louisiana



Source: U.S. Census Bureau 2009 American Community Survey

Note: "Other" includes American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, and those who identified themselves as "Some Other Race" or "Two or More Races." Racial groups include the non-Hispanic population only; Hispanic can include any racial group.

Map 2: Racial/Ethnic Distribution of Orleans Parish Population, 2005-2009



In many instances, people of color and disadvantaged populations in Orleans Parish have historically been relegated to isolated and segregated communities that perpetuate cycles of hardship because of limited housing and employment opportunities and lack of access to capital. These segregated communities generally have a high population density, and the lack of opportunity and resources contribute to higher than average homicide rates.

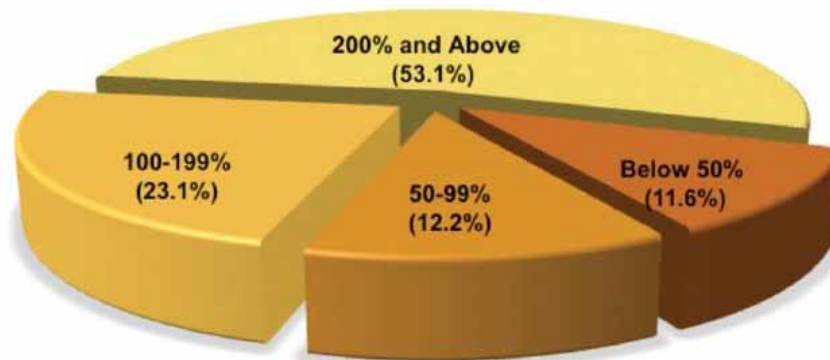
Racial and ethnic groups are concentrated differently across the Parish. Over 90% of the population in Orleans is either white or black, so a comparison between these two groups is most relevant. New Orleans ranked 34th in the amount of black-white segregation among the top 100 largest metro areas based on 2005-2009 American Community Survey data.

According to the Census Bureau there are 14 tracts in Orleans where the entire population is non-Hispanic Black. These tracts are located in the neighborhoods of Fischer Dev, the Lower

Ninth Ward, Florida Area, Florida Dev, Pontchartrain Park, Lake Catherine, Seventh Ward, St Bernard Area, Tremé, B.W. Cooper, Dixon and the northern portion of Central City. The most diverse tract in Orleans is a three-block group area within Mid-City between S. Carrollton & the City Park Avenue and I-10 & Canal St.

Map 2 illustrates the distributions of different racial groups throughout the parish. The areas of the Lake Terrace & Oaks, St. Anthony, Milneburg, Old Aurora, Tall Timbers/Brechtel, West & East Riverside, Lower Garden District, Central Business District, Mid City and Marlyville/Fontainebleau are the most diverse. By comparison the Lower Ninth Ward, Seventh Ward, Saint Roch and Central City are the areas where the black population has been segregated, and the Lakeview area between Orleans and Pontchartrain Avenue and in Audubon between Robertson Street and Prytanía Street are the areas with a majority white population.

Figure 2: Income-to-Poverty Ratio for Orleans Parish



Source: U.S Census Bureau 2009 American Community Survey

Socioeconomic Characteristics

Socioeconomic conditions in Orleans Parish exert an important, and often unrecognized, influence on health status. Nationally, families living below the Federal Poverty Level (FPL) are 3.6 times more likely to report fair or poor health than those with incomes of at least twice the poverty level.

In 2009, almost one-fourth (23.8%) of the population in Orleans Parish had incomes below the FPL ranges from = \$11,161 for single person household to \$41,476 for family of nine with eight children), compared to 17.3% in Louisiana and 14.4% nationwide. More than one of every nine persons (11.6%) in New Orleans earned less than half the Federal Poverty Level.

In 2009, the U.S. Census Bureau estimates that 23.6% of households were below 150% of the federal poverty threshold nationally. In New Orleans, 54.1% of the census tracts--representing 98 tracts--meet or exceed this level of poverty. The percentage of the population below 150% of the federal poverty level is highest in the Fischer Development, the Florida Development, the Desire Development, Tremé/Lafitte, Iberville, B.W. Cooper, the Saint Bernard area, the Saint Thomas Development and the western portion of Central City between the Pontchartrain Expressway and Martin Luther King Boulevard. In all of these areas at least half of the population earns less than 150% of the Federal Poverty Level (Map 3).

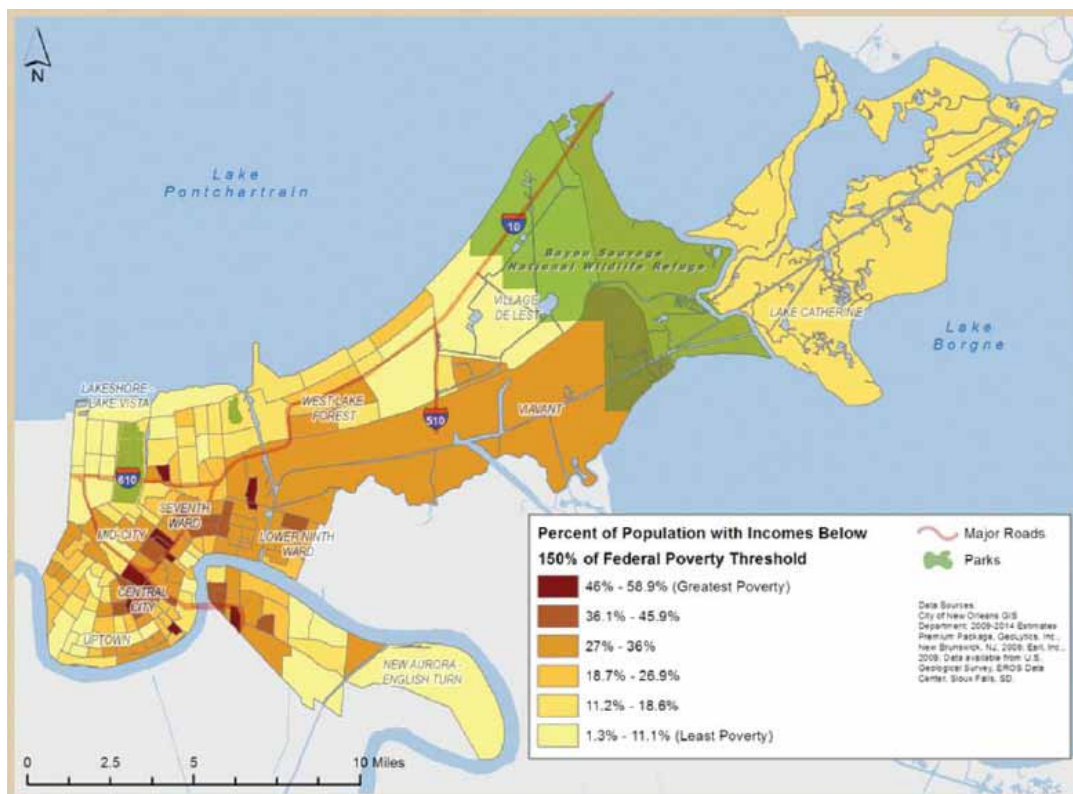
Living in neighborhoods of persistent and concentrated poverty, defined as neighborhoods where at least 20% of the population earned less than the federal poverty threshold for at least two decades, may have additional health and social consequences, particularly for children. A persistent lack of economic resources during childhood may affect cognitive, emotional, behavioral and physical development and is related to adverse outcomes such as premature death,

stunting, developmental delay, failure to complete high school and behavioral problems. Such adverse outcomes can perpetuate disadvantage and the multigenerational cycle of living in conditions that adversely affect health. Persistent poverty in Orleans Parish has been present in areas around the Central City, the Seventh Ward and Lower Ninth Ward, including B.W. Cooper, Bayou Saint John, Bywater, the Central Business District, the Desire Area, East Riverside, the Fischer Development, the Florida Development, Gert Town, Iberville and Irish Channel (Map 4).

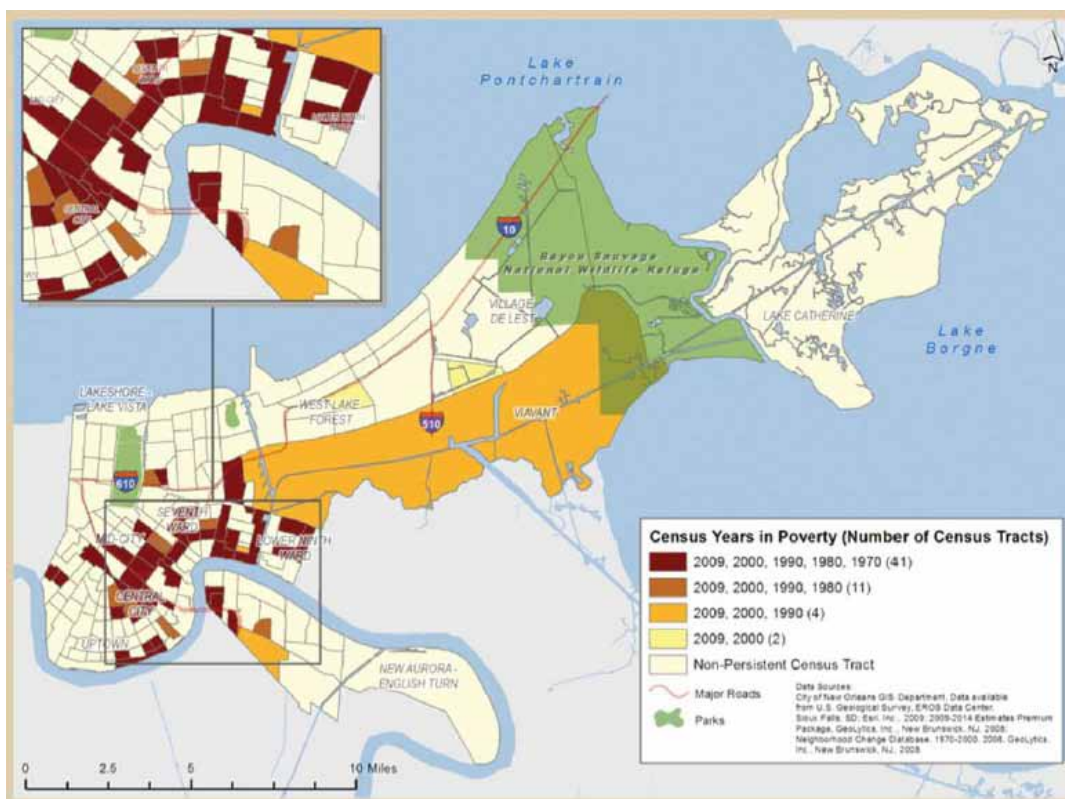
Insufficient income to meet basic needs intensifies material hardship. In 2009 nearly 20% (19.6%) of the households in Orleans spent between 30% and 49.9% of their income on housing. A similar percentage (19.3%) spent more than 50% of their income on housing. This compares to 12.5% and 8.2% respectively in Louisiana and 18.4% and 12.0% nationally. The same year, the percentage of households lacking plumbing in Orleans was more than double that of the rest of the state of Louisiana and triple that of the rest of the nation. Nearly one third of Orleans households (30.4%) did not have a vehicle compared to less than one-tenth for the state and the nation (9.2% and 8.5% respectively). The USDA reports that one of every ten households in Louisiana experienced some form of food insecurity, in other words, multiple instances when there simply wasn't enough food for the family to eat.

Generally speaking, neighborhoods of persistent and concentrated poverty also have low levels of home ownership and higher levels of vacant housing. This makes it more difficult for residents to maintain their residences or their neighborhoods. In 2009, 12.6% of Orleans housing units were vacant compared to 10.4% in Louisiana and 9.1% nationally. Only 40.5% of housing units in Orleans were occupied by those who owned and held a financial stake in the property, compared to 61.3% in Louisiana and 60.7% nationally.

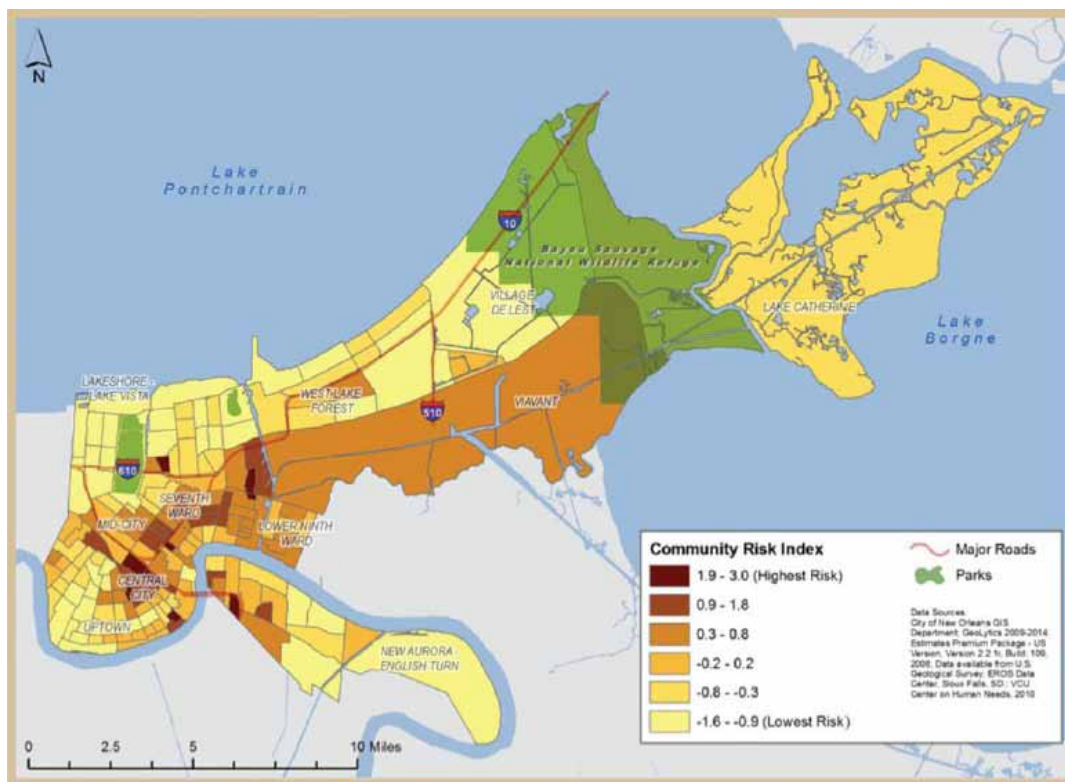
Map 3: Poverty by Census Tract



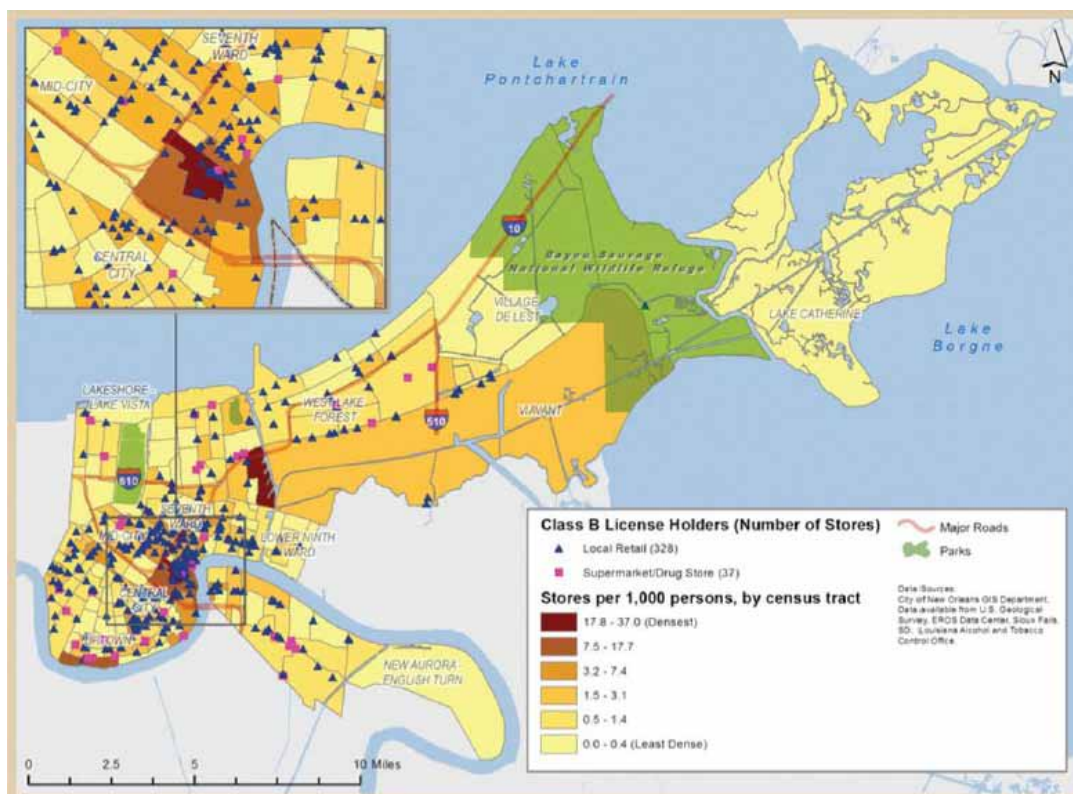
Map 4: Persistent Poverty by Census Tract



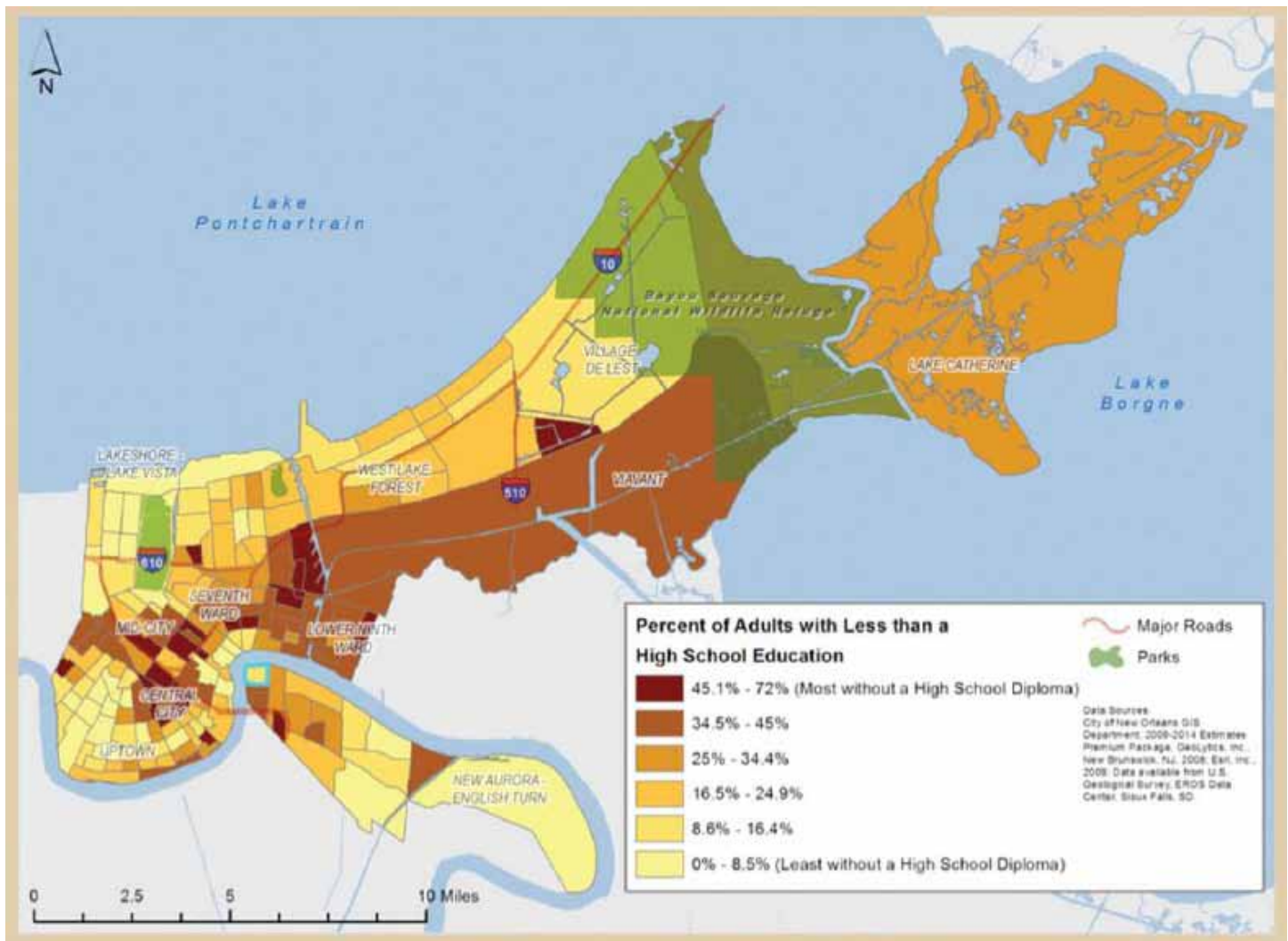
Map 5: Community Risk Index by Census Tract



Map 6: Location and Concentration of Alcohol Retail Establishments



Map 7: Population 25 and older with less than a high school education, by census tract



Community Risk Index

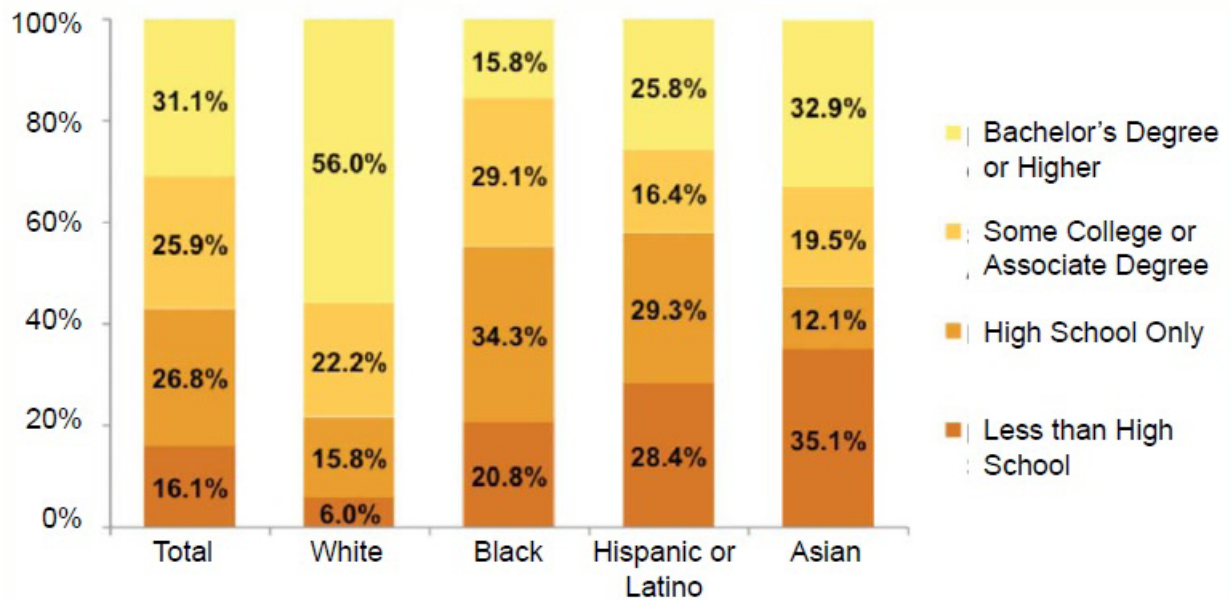
To sum up socioeconomic and neighborhood risks we developed an index for comparing Orleans Parish neighborhoods by statistically combining a set of measures into a single *community risk index (CRI)* for each census tract. This risk index was calculated based on the following indicators for each community: population below 150% of the Federal Poverty Level, overcrowded households (more than one person per room), households without a vehicle, and vacant housing.

A higher CRI score indicates a community in which poverty, material deprivation, and poor housing conditions combine and may create an environment of community distress. Neighborhoods such as these may be at increased risk of higher crime and environmental hazards, restricted access to healthy foods and job opportunities, and poor health outcomes. Census tract level CRI scores for Orleans Parish are shown in Map 5,

with the darkest colors indicating higher CRI scores and thus higher community risk. A total of 84 tracts (46.4%) have a CRI score higher than zero, indicating a higher than average level of risk. Areas in Orleans with the highest level of community risk include the Desire Development, Saint Bernard, Central City, the Saint Thomas Development, the Florida Development, Iberville, B.W. Cooper and the Fischer Development. Areas with the lowest risk include Old Aurora, the Lake Terrace and Oaks, Lakeview, West End, Lakewood, Fillmore, Little Woods and Read Boulevard East.

Often, socioeconomically disadvantaged communities lack healthy food options and have an excess of unhealthy options, including liquor stores. The density of off-premise liquor establishments correlates with increased rates of violence and the severity of such violence, independent of other social and economic characteristics known to be associated with crime. This effect is heightened in areas where smaller liquor stores

Figure 3: Educational Attainment in Orleans Parish, Louisiana



Source: U.S. Census Bureau, 2009 American Community Survey

Note: White includes non-Hispanic population only; all other racial categories include Hispanic and non-Hispanic population, Racial groups include non-Hispanic population only; Hispanic can include any racial group.

are clustered, perhaps because supermarkets have the resources to invest more heavily in security. Map 6 illustrates the distribution and density of local retail providers of alcohol

In addition, the characteristics of the neighborhood population seem to affect the type of alcohol available. Areas with a higher percentage of white and median income residents tended to have an increased availability of beer beverages, while areas with a higher percentage of black and poverty level residents were more closely associated with increased malt liquor availability.

The Central Business District between Magazine Street and Derbigny Street on the east and west and between Iberville Street and Lafayette Street to the north and south as well as the Desire Area have the highest density of liquor stores. Malt liquor availability is associated with increased drinking and intoxication levels, as well as higher rates of homicide, perhaps because it is less expensive, comes in higher volume, and has, in most instances, 2-3 times the alcohol content of beer.

Education

Education is a pathway to higher income and net worth, which also have strong influences on health status and access to health care. In 2009, American adults with less than a high school diploma earned less than half the income of their counterparts

with a Bachelor's degree (\$18,432 versus \$47,510).. But even those with a high school diploma earned less than those adults who had attended some college (\$26,140 versus \$31,906).

Orleans Parish has a slightly lower percentage of the population with less than a high school education than the state of Louisiana (16.1% and 17.8%, respectively) but a higher percentage than the country as a whole (14.7%) (See Table 2). Within Orleans Parish, the percentage of adults without a high school education varies greatly depending on location. Of all the census tracts, 120, or 66.3%, have a higher percentage of the population with incomes less than 150% of the federal poverty level than the rate for Louisiana, and 127 (70.2%) have a higher percentage than the rate for the nation. As Map 7 shows, B.W. Cooper, Central City, the Desire Area, the Desire Development, the Fischer Development, the Florida Area and the Florida Development, areas where the percentages of the population with incomes less than 150% of the federal poverty level is highest, have the largest percentages of the population lacking a high school education. The Lakeshore, Lake Vista, Lakeview, Audubon, Black Pearl, East Carrollton and New Aurora/Englishtown areas have the lowest population with less than a high school education.

Besides educational attainment, measures of educational proficiency also vary by place. The National Assessment of Educational Progress (NAEP) draws samples of students in the

Table 2. Socioeconomic Characteristics of Orleans Parish, State of Louisiana and United States

	Orleans Parish	Louisiana	United States
Educational Attainment^(a)			
Less than High School	16.1%	17.8%	14.7%
High School Only	26.8%	34.3%	28.5%
Some College	25.9%	26.4%	28.9%
Bachelor's Degree or Higher	31.1%	21.4%	27.9%
Poverty Rate^(a)			
Below 0.50 of Poverty Rate	11.6%	7.2%	6.3%
.50-.99 of Poverty Rate	12.2%	10.1%	8.1%
1.00-1.99 of Poverty Rate	23.1%	20.0%	18.4%
2.00 and Above of Poverty Rate	53.1%	62.7%	67.3%

(a) Source: U.S. Census Bureau, 2009 American Community Survey

fourth, eighth and 12th grades to gauge the level of proficiency in various subjects. In 2009, estimates of proficiency scores for fourth- and eighth-grade students in Louisiana were below the average score for public school students in the nation for reading and math.¹ In all four categories, Louisiana scored no higher than the 41st among the 50 states and the District of Columbia.

Compared to whites in the same time period, black Orleans residents age 25 and over were more than three times as likely to lack a high school education and Asian residents were five and half times as likely¹⁷ (see Figure 3). The Asian population of Orleans is more than twice as likely to lack a high school education (35.1%) as the Asian population of the U.S. (14.7%).
(2009 ACS)

Educational attainment is a strong predictor of health risks. Low educational attainment is associated with being uninsured, lacking a usual source of health care, and foregoing or delaying care because of the cost.^{2,3} National statistics indicate that adults (age 25 and older) who lack a high school education or equivalent are more likely to engage in unhealthy behaviors such as cigarette smoking⁴ and are three times more likely to die before age 65 than those with a college education.⁵ Geographic disparities in the level of risk a community faces are related to health choices, behaviors, environmental risks and access to medical care.^{6,7,8,9,10,11}

Health Outcomes

According to the County Health Rankings released in 2010 by the Robert Wood Johnson Foundation, Orleans Parish ranked 59th in health statusⁱⁱⁱ among the 64 counties in Louisiana.¹² These rankings are based on mortality (premature deaths) and morbidity (poor or fair health status, poor physical health days, poor mental health days and low birth weight). In 2004, there were 500.4 deaths prior to the age of 65 for every 100,000 residents in Orleans, compared to 388.6 in St. Tammany Parish, which ranked No.1 in health status in Louisiana.¹³

In 2005, Louisiana had the third lowest life expectancy of any state, including the District of Columbia: 74.0 years compared to 78.0 years for the United States as a whole.¹⁴ For Orleans Parish, the life expectancy rate was 72.5 years. In 2007 Louisiana also had the second highest diabetes mortality rate (33.3 deaths per 100,000 compared to 22.5 for the U.S. as a whole) and low birth weight rate (10.8% of births in Louisiana compared to 8.2% of births in the U.S.) and the fifth highest cardiovascular mortality rate (230.0 deaths per 100,000 in Louisiana compared to 190.9 in the U.S.).^{15,16} Orleans Parish had a slightly lower rate of cardiovascular mortality than Louisiana, but a significantly higher rate than the nation. It had a significantly higher rate of low birth weight babies than either the state or the nation. (Table 3).

iii The County Health Rankings project assigns values to each county within a state for health outcomes and health factors. Health status is based on the ranking among the counties on mortality (premature death) and morbidity (poor or fair health status, poor physical health days, poor mental health days and low birth weight).

Table 3. Health Characteristics of Orleans Parish, State of Louisiana, and United States

	Orleans Parish	Louisiana	United States
Life Expectancy	72.5 ^(a)	74.0 ^(b)	78.0 ^(b)
All Cause Mortality Rate* (2007)^(c)	1061.5	970.6	807.6
White	829.3	903.1	792.2
Black	1237.9	1171.0	1035.2
Cardiovascular Mortality (2007)^(c)	336.6	340.1	295.3
White	n/a	317.8	288.7
Black	389.9	410.8	389.9
Low Birth Weight Rate (2008)^(d)	13.0%	10.8%	8.2%
White Alone	7.4%	7.9%	7.1%
Black Alone	15.1%	15.1%	13.4%
Non-Hispanic	13.3%	11.0%	8.6%
Hispanic	8.8%	7.0%	7.0%

(a) Calculations performed by VCU Center on Human Needs from data provided by Louisiana Vital Statistics Department and 2009 Geolytics Premium Estimates

(b) Calculations performed by American Human Development Index from data provided by the Centers for Disease Control and Prevention's National Vital Statistics Survey and the US Census Bureau

(c) Data from the Centers for Disease Control and Prevention CDC Wonder Tool adjusted to the 2000 Census Population

(d) The Centers for Disease Control and Prevention National Vital Statistics System, 2008

* Mortality statistics are per 100,000 population

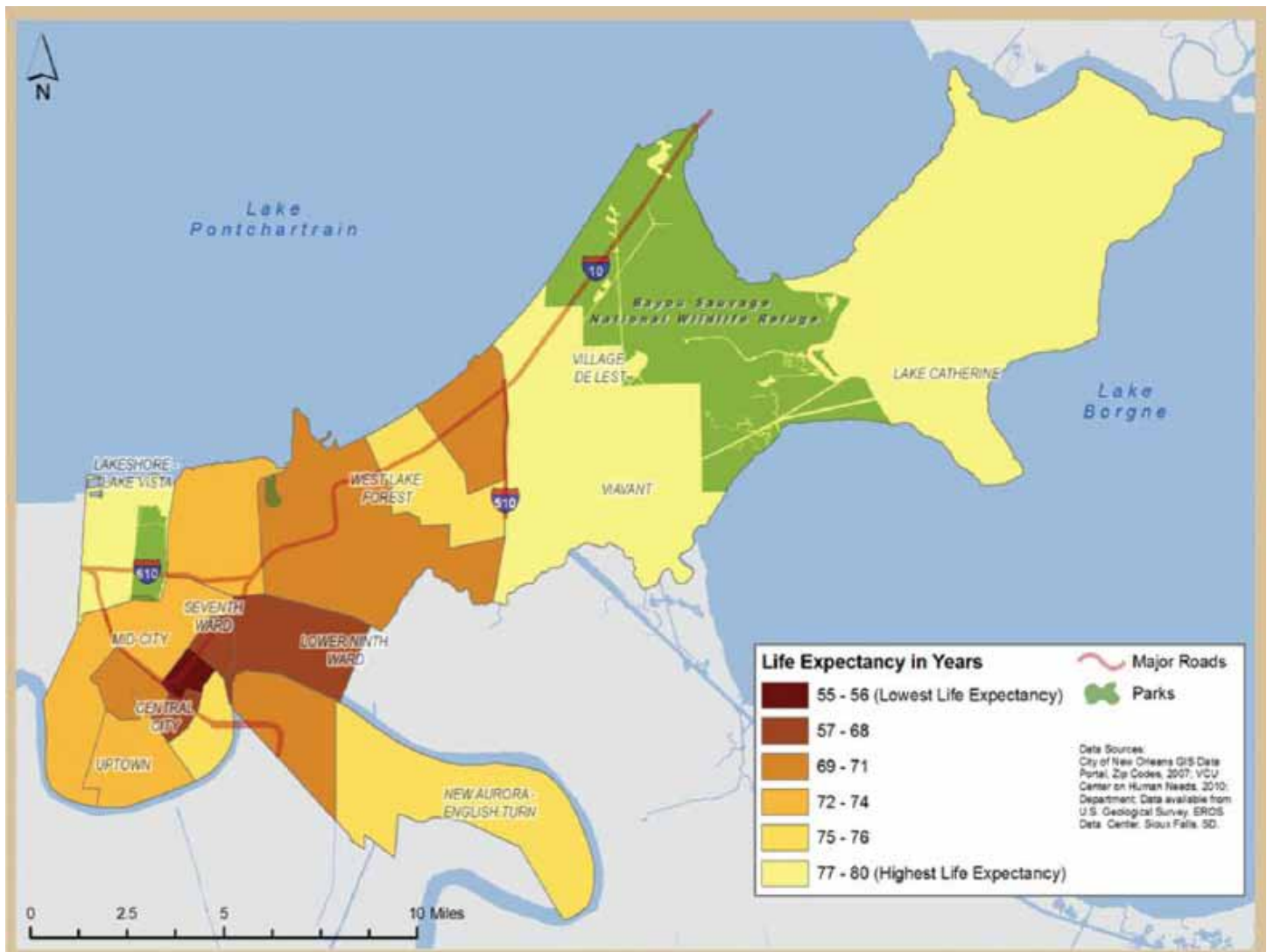
Given the geographic variation in socioeconomic and environmental factors that affect health in Orleans Parish, it follows that health outcomes—including life expectancy, cardiovascular mortality and rate of low birth weight births—vary sharply by neighborhood as well. Both Map 8 and Table 4 illustrate how widely life expectancy at birth varies by zip code, from a low of 54.5 in zip code 70112 (containing portions of the neighborhoods Tulane, Gravier, Iberville, the Central Business District and Tremé) to a high of 80.0 in zip code 70124 (Lakeshore, Lake Vista, Lakeview, West End, Lakewood and Navarre). The population in zip code 70112 also had the highest cardiovascular mortality, stroke mortality and diabetes mortality in Orleans.

Nationally, rates of new cases of sexually transmitted diseases (STDs) increase in high-poverty communities. Using data from the Louisiana State Health Department, we calculated the rates of new cases of Gonorrhea, Chlamydia and Syphilis from 2005 to 2008. Typically, new cases are much higher in populations of young adults and in females. Because of this, crude comparisons of new cases of STDs may simply reflect a disparity in young adult or female populations. To account for this, we adjusted

the STD rates for both age and gender so that differences in rates were accountable to disease patterns rather than demographics. Map 9 illustrates the result of these adjustments. The highest values are in the Tulane/Gravier area.

As is true generally in the United States, social and economic levels of distress are not evenly distributed geographically or across groups identified by race, ethnicity, or immigration status. Needs related to poverty, lack of education, and community risk cluster together and are associated with poor health outcomes. The zip code of 70112 is approximately one square mile, with Canal St. and the Pontchartrain Expressway bordering it to the north and south, and Claiborne Ave. and Magazine St. bordering it to the east and west. It contains the Louisiana Super Dome in the southwest corner. Compared to the other zip codes, 70112 has the highest percentage of the population earning less than 150% of the federal poverty limit, the third highest population with less than a high school education and the fifth highest non-white population. It also has the lowest life expectancy in Orleans, the highest sexually transmitted disease rate, heart disease mortality and low birth weight rates of any zip code in the city. Between 1999 and 2007, the rate

Map 8: Life Expectancy by Zip Code



of heart disease mortality was more than ten times greater in 70112 than in 70124 which had the lowest percentage of the population below 150% of the federal poverty limit.

The task of isolating the individual effects of social (education, poverty, etc.) and environmental factors (crime, hazards, food access, etc.) on the distribution of health in Orleans is complex. These factors are deeply interrelated and can be misleading when their effects are examined independently. An additional complication in examining these relationships is the geographic level of the health data available for this analysis. All of the health measurements utilized here are at the zip code level, limiting the number of units available for analysis to only seventeen. These large geographic units make for much more stable estimates of the prevalence of each outcome, but limit the analytic power to examine multiple relationships simultaneously.

Summary

In sum, New Orleans is a city characterized by a dense urban environment in its central, downtown area, and a more sparsely populated area to the east. It has a much larger than average African American population (61.2%) and an overall level of racial segregation, as measured by the Index of Dissimilarity, that is 65.5%. In 2009, almost one-fourth of the population in Orleans Parish had incomes below the Federal Poverty Level and 58 census tracts have recorded persistent poverty (for two or more decades). Accounting for differences in population age, the rate for all-cause mortality and low birth rate is higher in Orleans than in either Louisiana or the U.S as a whole, and estimated life expectancy at birth in New Orleans is 72.5 years, a year and a half less than the rest of Louisiana and a full 5.5 years less than the rest of the U.S. Life expectancy varies by 25.5 years between zip codes within Orleans Parish. Needs related to

Table 4. Health Outcomes by Zip Code

Zip Code	Neighborhood	Life Exp. _a	STD Rate _b	LBW Rate _b	Heart Disease Mortality _a	% less than HS _c	% Non-Whites _c	% below 150% FPL _c
70112	Tulane, Gravier, Iberville, Treme	54.5	4658.6	34.3	1946.2	39.5%	87.2%	36.0%
70113	Central City, Central Business Dist.	66.3	1292.8	27.1	375.9	40.0%	84.2%	35.0%
70114	Algiers Point, McDonogh, Whitney, Behrman	70.5	1048.7	29.5	350.9	27.4%	78.5%	31.0%
70115	Audubon, West Riverside, Uptown, Freret, Milan, Touro, E. Riverside, Irish Channel	73.8	573.8	12.7	261.5	16.7%	44.6%	21.0%
70116	Treme, Seventh Ward, French Quarter, Marigny	65.7	1937.0	16.3	406.8	21.8%	55.2%	28.0%
70117	St. Roch, Florida Area, St. Claude, Bywater, Lower Ninth Ward, Holy Cross	67.6	1114.6	15.1	349.9	37.5%	88.4%	34.0%
70118	Audubon, Black Pearl, E. Carrollton, Leonidas, Hollygrove	73.2	671.6	13.5	291.9	20.0%	55.0%	20.0%
70119	Mid-City, Bayou, St. John, Treme	74.4	841.2	11.3	262.1	34.9%	75.6%	25.0%
70122	Lake Terrace & Oaks, Fillmore, St. Anthony, Milneburg, Gentilly Terrace, Dillard	73.1	568.1	8.2	252.4	20.5%	75.3%	20.0%
70124	Lakeshore, Lake Vista, Lakeview, West End, Lakewood, Navarre	80.0	75.8	0.0	190.9	7.8%	6.7%	6.0%
70125	Broadmoor, Marlyville, Fontainebleau, Gert Town, B.W. Cooper	70.6	628.8	11.4	302.8	24.6%	66.6%	26.0%
70126	Pontchartrain Park, Gentilly Woods, Desire Area, Pines Village, Little Woods, Plum Orchard	68.8	826.8	12.7	339.1	22.2%	88.4%	20.0%
70127	Little Woods, West Lake Forest, Plum Orchard, Read Blvd West	75.4	608.4	12.1	236.8	18.4%	87.2%	18.0%
70128	Little Woods, Read Blvd East	70.5	742.5	14.0	317.9	16.8%	90.0%	15.0%
70129	Little Woods, Read Blvd East, Viavant, Venetian Islands	79.1	219.6	6.8	161.5	39.6%	80.5%	24.0%
70130	St. Thomas Dev, Lower Garden Dist., Central Business Dist.	75.4	705.0	15.4	241.0	20.2%	44.5%	24.0%
70131	Old Aurora, Tall Timbers, Brechtel, New Aurora, English Turn	75.6	571.9	18.7	314.4	12.6%	47.9%	13.0%

(a) Calculated from abridged death tables provided by LA Vital Records Office and population estimates from 2000 - 2009 Geolytics Premium Estimates

(b) Louisiana Department of Health

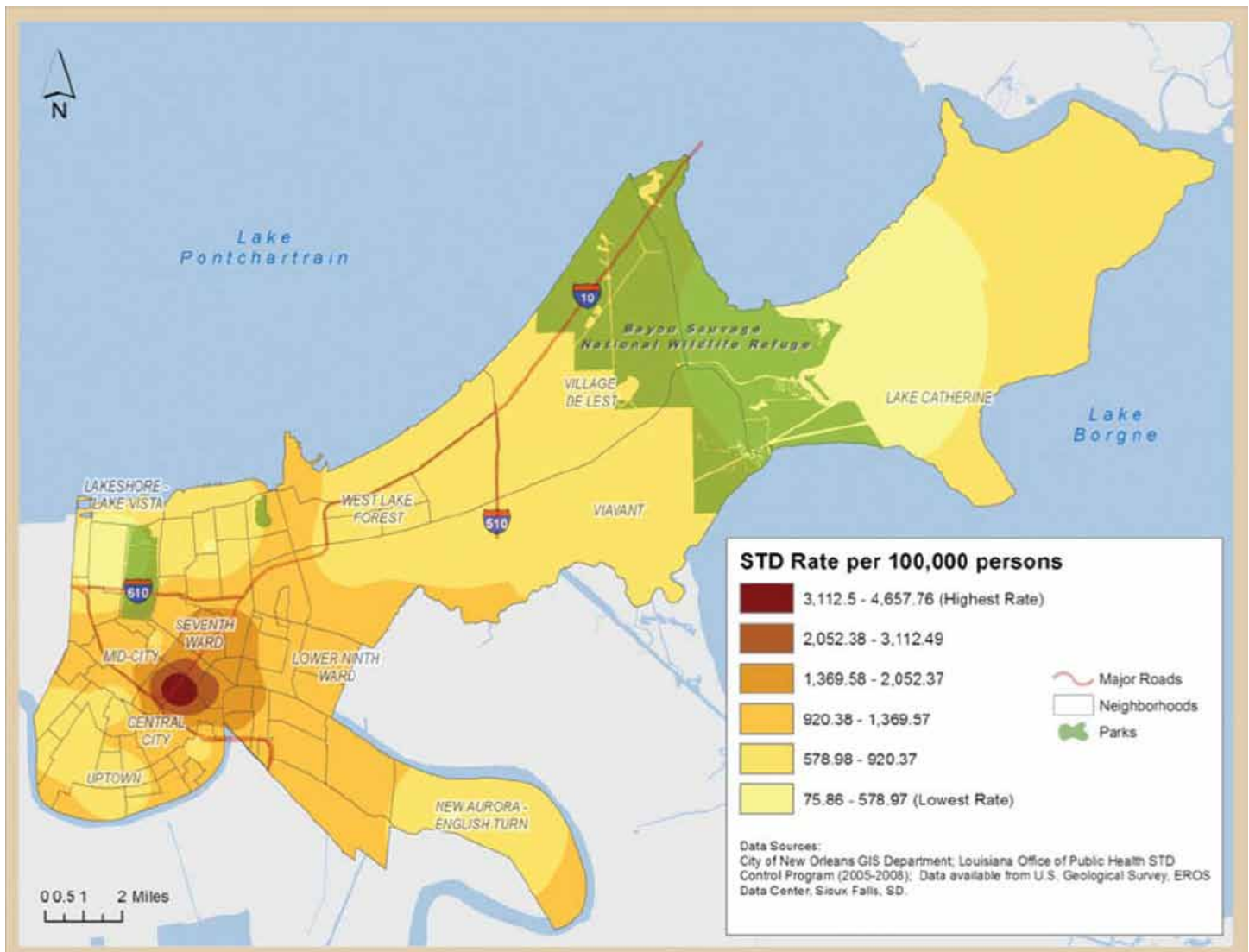
(c) 2009 Geolytics Premium Estimates

Note: All rates are per 100,000 population

poverty, lack of education, and community risk cluster together and are associated with poor health outcomes, as seen in the example of zip code 70112, which had the highest percentage of the population earning less than 150% of the federal poverty limit, the third highest population with less than a high school

education and the fifth highest non-white population. Along with that, it had the lowest life expectancy and the highest rates of sexually transmitted disease, heart disease mortality and low birth weight of any zip code in the city.

Map 9: STD Rate per 100,000 by Zip Code



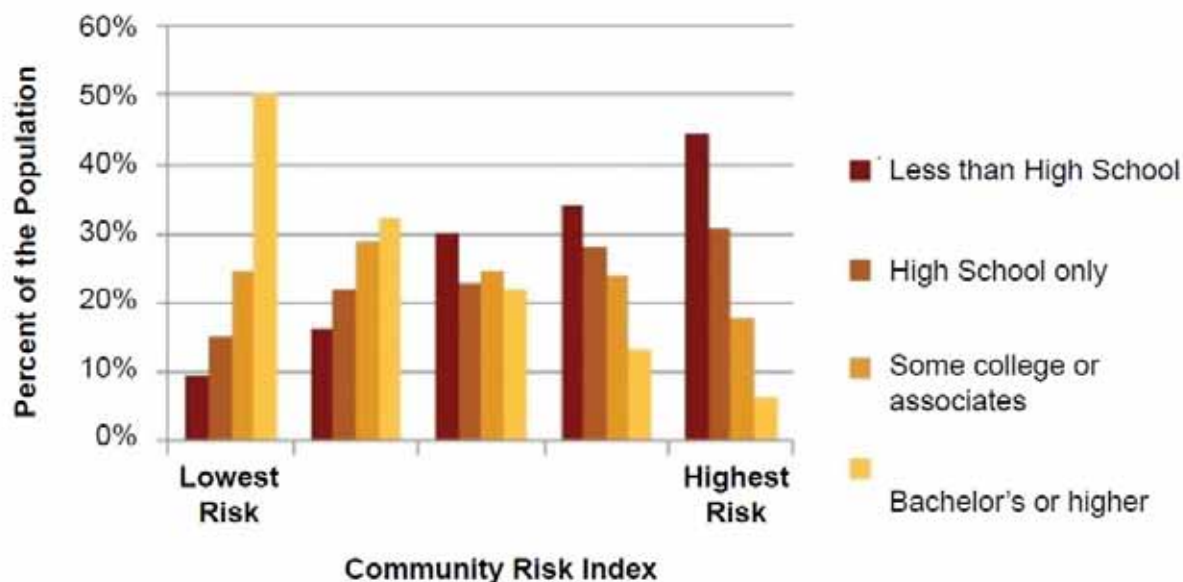
II. Socioeconomic Status, Education and Health

Health is affected not only by the characteristics of individuals and their families, but also by the neighborhoods and environment in which they live. Among the important neighborhood factors are the crime rate, quality of local schools, built environment (roads, sewers, commercial buildings, etc.), and neighborhood housing conditions. Here we focus first on the relationship between socioeconomic status and educational attainment, and then on the relationship between the community risk index (CRI), poverty, educational attainment, race and life expectancy.

Socioeconomic Status and Educational Attainment

The socioeconomic status of a community is strongly related to the educational attainment of its residents. Using the CRI to summarize community socioeconomic status (as described in Part 1, the CRI is a composite index based on percent of the population below 150% of the Federal poverty level, overcrowded households, households without a vehicle and vacant housing), we find that the CRI score is very highly correlated with the level of educational attainment. Figure 4 illustrates this relationship. With CRI scores broken out into quintiles (five equal-size groups), we see that as the level of risk measured by the CRI increases, the population of people with less than a high school education increases, and the population with at least a Bachelor's degree falls. In communities with the lowest CRI scores, only 9.5% adults have less than a high school education and one half (50.4%) have a Bachelor's degree or

Figure 4: Educational Attainment by Community Risk Level



Source: Geolytics 2009-2014 Estimates Premium Packages - US Version, Version 2.2 1r.

higher. By comparison, in communities with the highest CRI scores, nearly half (44.6%) of adults have less than a high school education and only one of every 15 (6.6%) have a Bachelor's degree or higher.

For further analysis, we split educational attainment into four categories; less than a high school education, high school only, some college or an associate's degree, and a Bachelor's degree or higher. The results of our analysis show a statistically significant relationship between the CRI and educational attainment in all four categories. It is important to note, however, that the observed relationship does not imply causation – that is, it does not provide evidence that higher community risk necessarily causes lower educational attainment, but it does illustrate the correlation.

Map 10 indicates specifically which census tracts in Orleans have both a high community risk index and low levels of educational attainment. The dark red areas (B.W. Cooper, Western Central City, the Fischer Development, the Florida Development, Iberville and the Saint Thomas Development) have the highest CRI and the highest percentages of residents without a high school education. The lighter colors identify additional census tracts where both the CRI and the percent of adults who have not completed high school are higher than the Parish average, including Behrman, Central City the Desire Area, the Desire Development and Gert Town.

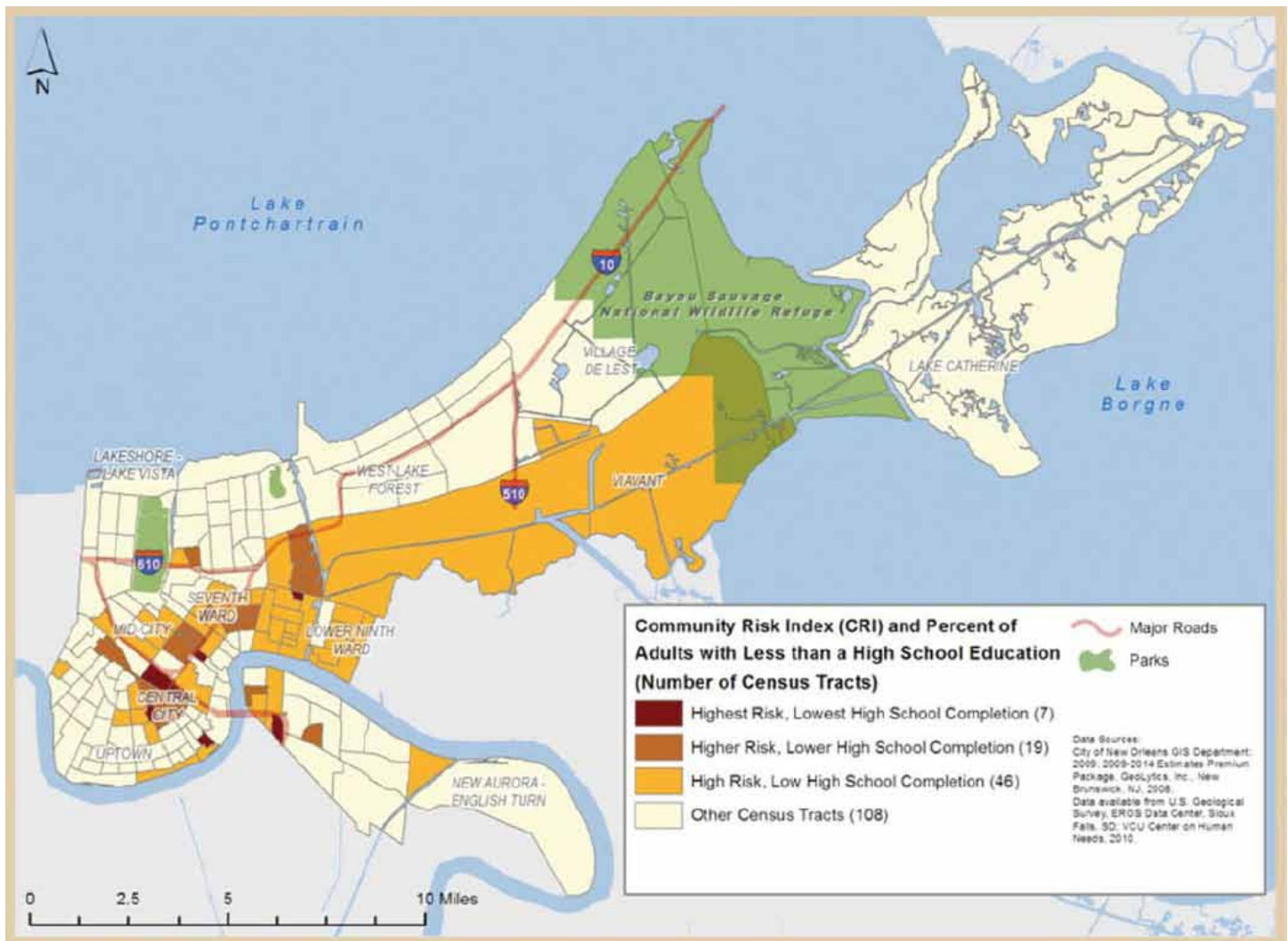
Health Outcomes

In 2007, members of families living in poverty nationwide, compared to families earning at least 200% of the Federal Poverty Level, had 3.6 times the rate of reporting fair or poor health status, nearly twice the rate of diabetes, 5.3 times the rate of serious psychological distress, and 1.6 times the rate of being hospitalized during the previous year. ^(2007 NHIS Report) In addition, access to needed health care services is much more limited for those with low incomes. That same year, impoverished families were three times as likely to lack health insurance, about twice as likely to lack a usual source of care, 2.6 times as likely to delay care due to cost and 3.6 times as likely to not obtain care due to cost than families earning more than 200% of the federal poverty limit. ^(2007 NHIS Report)

Poverty is one component of the CRI measure and a strong predictor of health outcomes.^{2,4-9} Figure 5 displays zip codes by quintiles to illustrate how CRI is related to health outcomes. Areas with the highest CRI scores had 71.4% more heart disease mortality, 53.8% more stroke mortality and 99.2% more diabetes mortality compared to areas with the lowest CRI.

In Orleans, zip codes with higher percentages of the population in poverty also tend to suffer from worse health outcomes. Zip code 70112 (containing portions of Tulane, Gravier, Iberville and Tremé/Lafitte) had the highest percent of the population below 150% of the Federal Poverty Level and had a life expectancy that was only 72% of zip code 70131, which had the

Map 10: Orleans Census Tracts with High CRI Scores and High Percent of Adults With Less than a High School Education



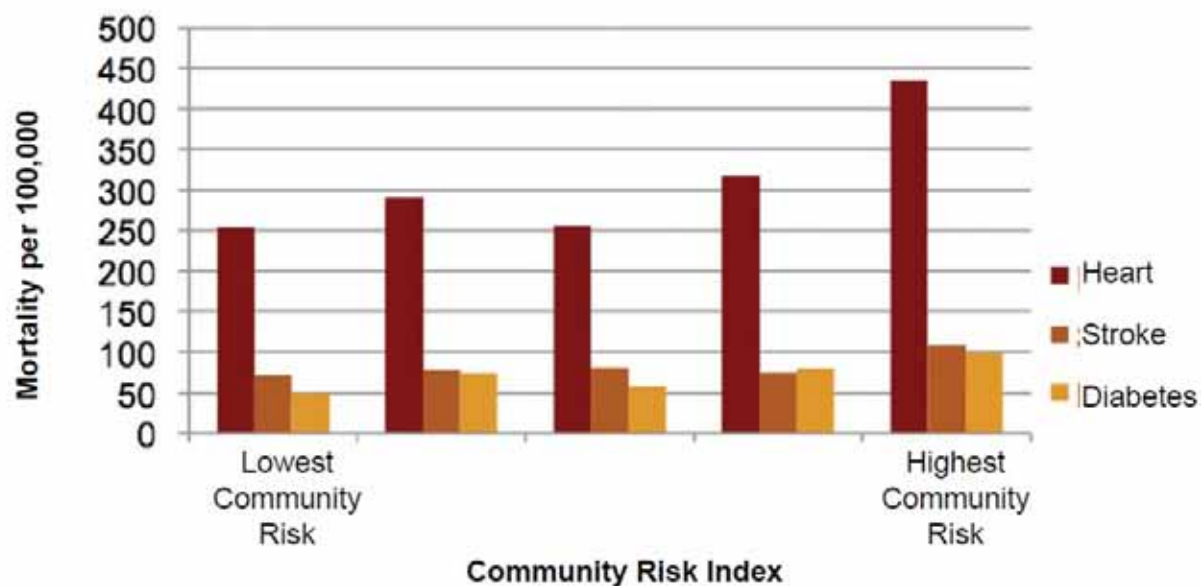
lowest percent of the population below 150% FPL. As Figure 6 shows, in Orleans the general pattern holds that as the percent of the population below 150% of the FPL in a census tract rises, the life expectancy tends to fall. Although the number of cases is small (17 zip codes), the correlation between life expectancy and percent of the population below 150% FPL is statistically significant.

Literature citing the strong relationship between income and education was previously mentioned in section I. In Orleans, the percentage of the population with less than a high school education is highly correlated with the percentage of the population with less than 150% of the federal poverty income level. Education is also a strong predictor of health outcomes. For example, in a 37 state reporting area in 2005, the Centers for Disease Control and Prevention found that the infant mortality rate among babies born to mothers with less than 12

years of education was more than twice the rate for mothers with 16 or more years of education. (National Vital Statistics Report 52:2) In 2007, among adults age 25 and older, those with less than a high school diploma had 4.5 times to the rate of reporting fair or poor health status, had more than twice the prevalence of diabetes, and had 5 times the rate of reporting serious psychological problems compared to those with a Bachelor's degree. (2007 NHIS Report)

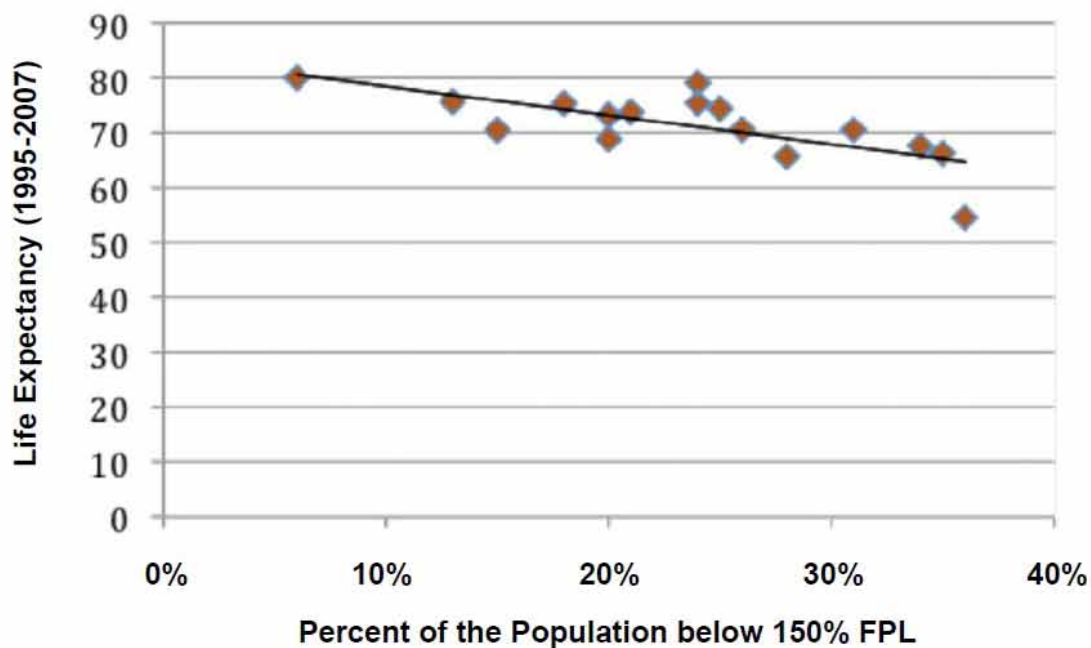
As figure 7 shows, zip codes in Orleans with a higher percentage of the population lacking a high school education tend to have lower life expectancies. In zip code 70124, where 7.8% of adults did not complete high school, the life expectancy is 80 years. In zip codes 70112 and 70113, where about 40% of adults did not complete high school and the percentage of people with incomes below 150% of the FPL is 35% or higher, life expectancy is 54.5 and 66.3 years, respectively. Although the

Figure 5: Mortality by Community Risk Index



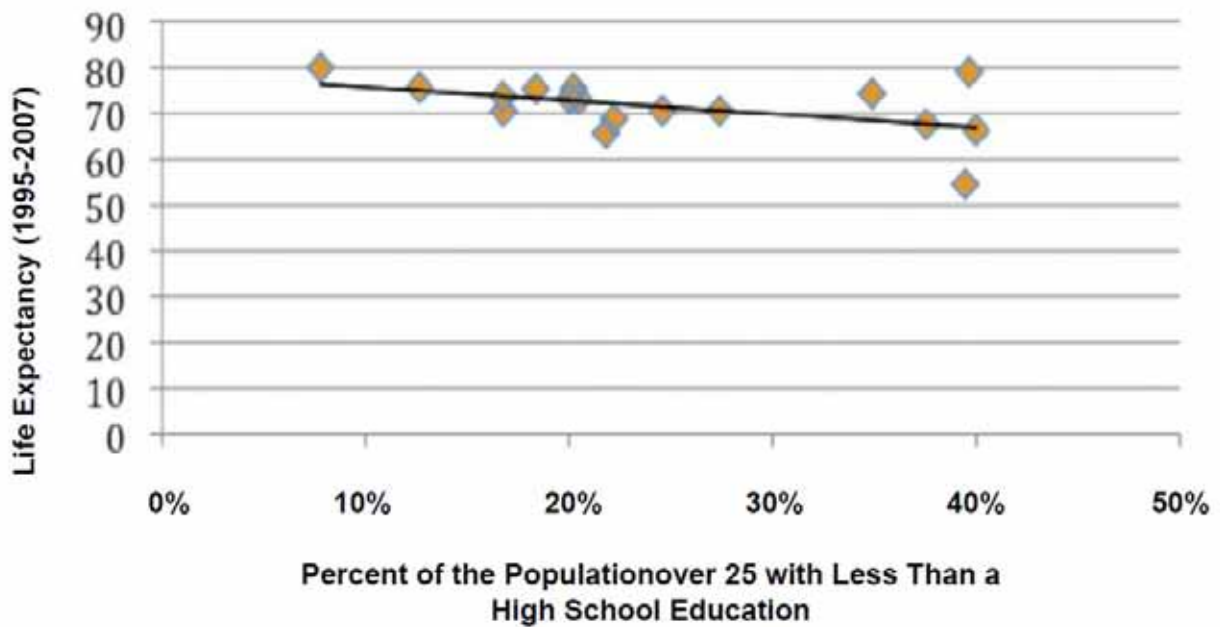
Sources: Geolytics 2009 Premium Estimates,
1999-2007 Louisiana Vital Records Department

Figure 6: Life Expectancy Decreases as the Population in or Near Poverty Increases



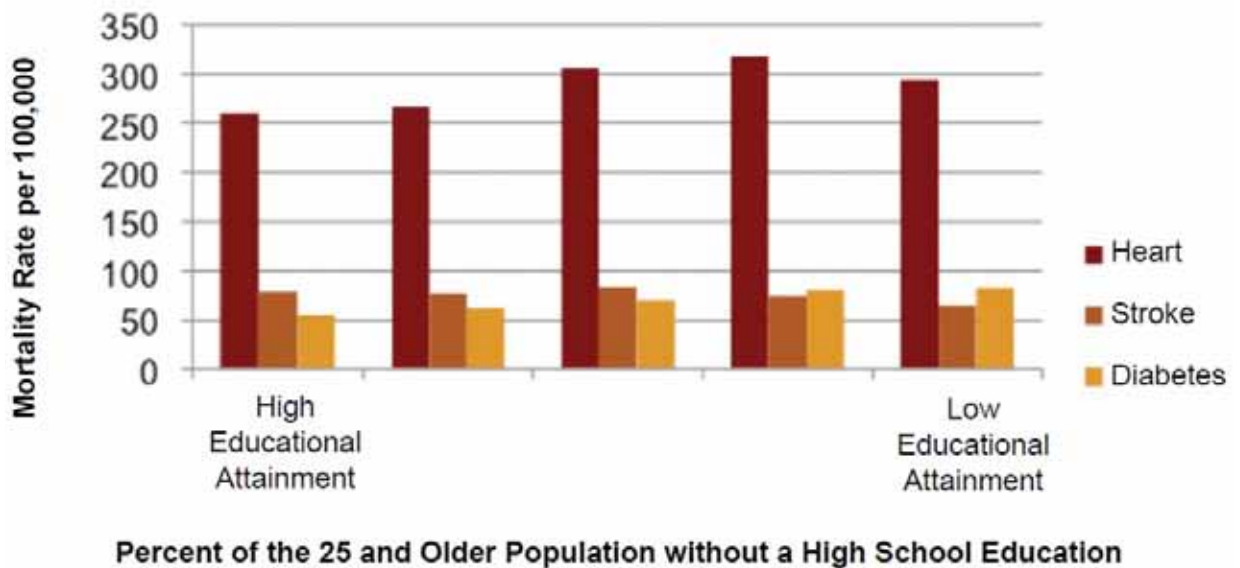
Sources: Geolytics 2009 Premium Estimates,
1999-2007 Louisiana Vital Records Department

Figure 7: As Educational Attainment Decreases, Life Expectancy Decreases



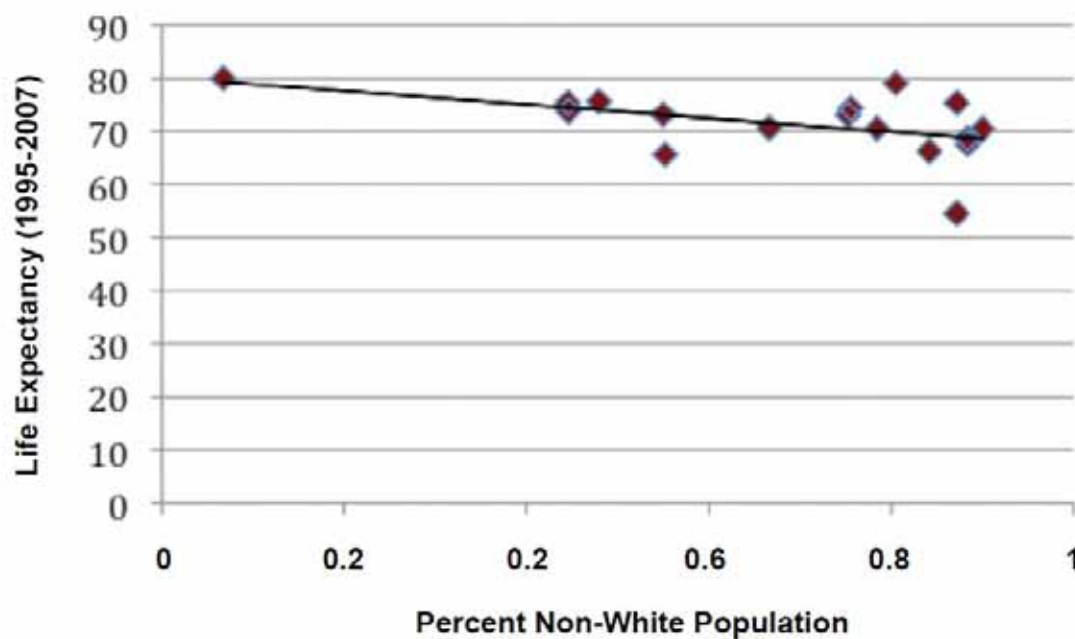
Sources: 2009 Geolytics Premium Estimates,
1999-2007 Louisiana Vital Records Department

Figure 8: Mortality Rate by Educational Attainment



Sources: 2009 Geolytics Premium Estimates,
1999-2007 Louisiana Vital Records Department

Figure 9: Life Expectancy Decreases as the Percent of Racial Population Increases



Sources: 2009 Geolytics Premium Estimates,
1999-2007 Louisiana Vital Records Department

number of cases is small (17 zip codes), the correlation between life expectancy and percent of the population with less than a high school education is statistically significant.

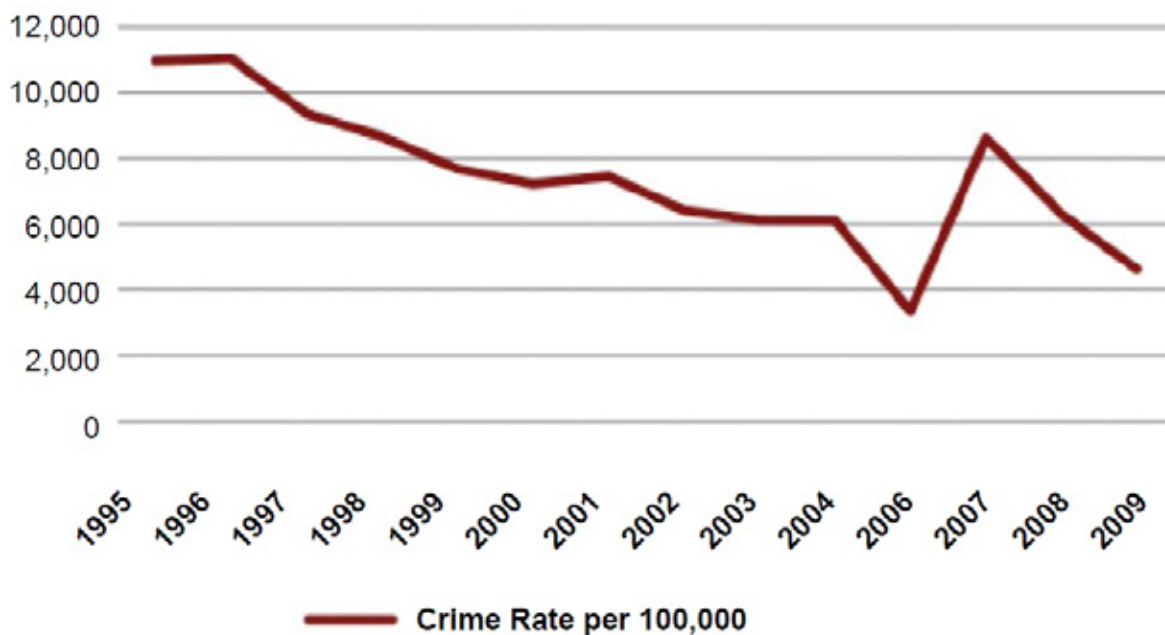
To examine the effect that education has on health outcomes, we split the zip codes into quintiles based on the percentage of the population with less than a high school education. Figure 8 shows that the rate of diabetes mortality increases as the percent of the population without a high school diploma increases. Compared to the zip codes with the highest educational attainment, those with the lowest had 50.2% more diabetes mortality between 1999 and 2007. For cardiovascular mortality and stroke mortality, the relationship appears to be somewhat weaker. With the 17 cases available for analysis, none of these relationships appeared to be statistically significant.

In predicting health outcomes, demographic characteristics also play an important role. In 2006, a white newborn child in the U.S. was expected to live 78.2 years.^(08-09 Health US) A black newborn in the same year was expected to live 5 years less (73.2). Black infants were also 2.4 times more likely to die before reaching their first birthday than white infants.^(2009 NVSS) These inequalities are due to a confluence of factors, including socioeconomic characteristics, although research indicates that these characteristics do not account for the full extent of the disparities.

While the typical Orleans resident had a life expectancy of 72.5 years between 2001 and 2007, whites had a life expectancy of 76.2 years while blacks had an expectancy of 67.4 years, a statistically significant difference of 8.8 years. In addition, the age adjusted all-cause mortality of black Orleans residents was more than 50% higher compared to white residents (1353.8 per 100,000 and 872.1 respectively) and the risk of premature death (prior to the age of 65) was more than 60% higher for blacks than whites (566.8 deaths per 100,000 and 343.9 deaths respectively).

Because of our lack of more geographically focused health outcome data for Orleans, comparisons of racial health inequalities by place are difficult. Also, because this is a cross sectional analysis (i.e. a look at population and health data at one point in time rather than in sequence), interpretations of the findings should be made with caution. However, analysis at the zip code level appears to show a relationship between racial populations and life expectancy similar to those seen nationally (see Figure 9). In all four zip codes that are majority white, life expectancy exceeds 73 years, the highest being 80 years. By comparison, in four of the seven zip codes that are 80% or more non-white, life expectancy is under 70 years, the lowest being 54.5 years. Despite the small number of cases (17 zip codes), the correlation between life expectancy and percent of the non-white population is statistically significant.

Figure 10: Crime Rate in New Orleans



Source: 1995-2009 FBI Crime in the United States Reports

Summary

In sum, there is strong evidence for the relationship between socioeconomic status (measured by the CRI) and educational attainment at the census tract level in Orleans Parish. We have presented findings on the relationship between health outcomes and socioeconomic status, poverty, educational attainment and race. Despite the limitation of obtaining health outcome data only at the zip code level, which limits the number of cases for analysis to 17 zip codes, we found statistically significant relationships between life expectancy and poverty, the percent of the population with less than a high school education, and race. Areas of low CRI and low educational attainment include The B.W. Cooper, Western Central City, Fischer Dev, Florida Dev, Iberville and St. Thomas Dev, Behrman, Central City Desire Area, Desire Dev and Gert Town.

These findings are consistent with research showing that adults who have not graduated from high school are 4.5 times more likely to report fair or poor health status compared to adults with Bachelor's degrees or higher ^(adams, barns) and have an age-adjusted mortality rate almost three times the rate for adults with some college or a college degree.¹⁸

III. Crime and New Orleans Communities

Repopulation and Crime

In 2004, Orleans had higher rates of virtually every reported crime than any of its higher geographic areas (i.e. state, region, district, etc) including the nation as a whole.¹⁹ The crime story in Orleans has changed dramatically within the past five years, due in large part to the effects of Hurricane Katrina.^{iv} Post Katrina, the crime rates in Orleans have been extremely volatile (see Figure 10). Rates for 2005 are not available from the FBI, but between 2004 and 2006 there was a steep decline followed by a rapid spike in 2007.^{28,29,49} Rates have gotten progressively lower between 2007 and 2009.⁵ By 2009, the crime rate in Orleans had dropped appreciably in a number of categories.⁴⁹ Despite the fact that the rates of violent and property crime, as well as murder, robbery, burglary and motor vehicle theft remained high, the rates of forcible rape, aggravated assault, and larceny-theft had fallen below the rates for Louisiana. (Table 5).²⁰

iv The FBI reports crime data for the City of New Orleans within several nested layers; the New Orleans-Metairie-Kenner LA Metropolitan Statistical Area, the state of Louisiana, the West South Central Region, and the Southern Region.

Table 5. Crime Rates of Orleans Parish, State of Louisiana, and United States

	Orleans Parish	Louisiana	United States
2004^(a)			
Violent Crime Rate/100,000	948.3	638.7	465.5
Murder/Non-Negligent Homicide	56.0	12.7	5.5
Forcible Rape	40.1	35.8	32.2
Robbery	389.8	145.4	136.7
Aggravated Assault	462.4	444.9	291.1
Property Crime Rate/100,000	5162.0	4410.2	3517.1
Burglary	1449.7	1004.5	729.9
Larceny-Theft	5335.7	2969.2	2365.9
Motor Vehicle Theft	875.3	436.6	421.3
2009^(b)			
Violent Crime Rate/100,000	777.0	620.0	429.4
Murder/Non-Negligent Homicide	51.7	11.8	5.0
Forcible Rape	29.1	30.3	28.7
Robbery	277.0	135.9	133.0
Aggravated Assault	419.1	442.0	262.8
Property Crime Rate/100,000	3846.3	3794.6	3036.1
Burglary	1135.8	1029.5	716.3
Larceny-Theft	1934.2	2504.3	2060.9
Motor Vehicle Theft	776.4	260.8	258.8

(a) Department of Justice Federal Bureau of Investigation. Crime in the US 2004

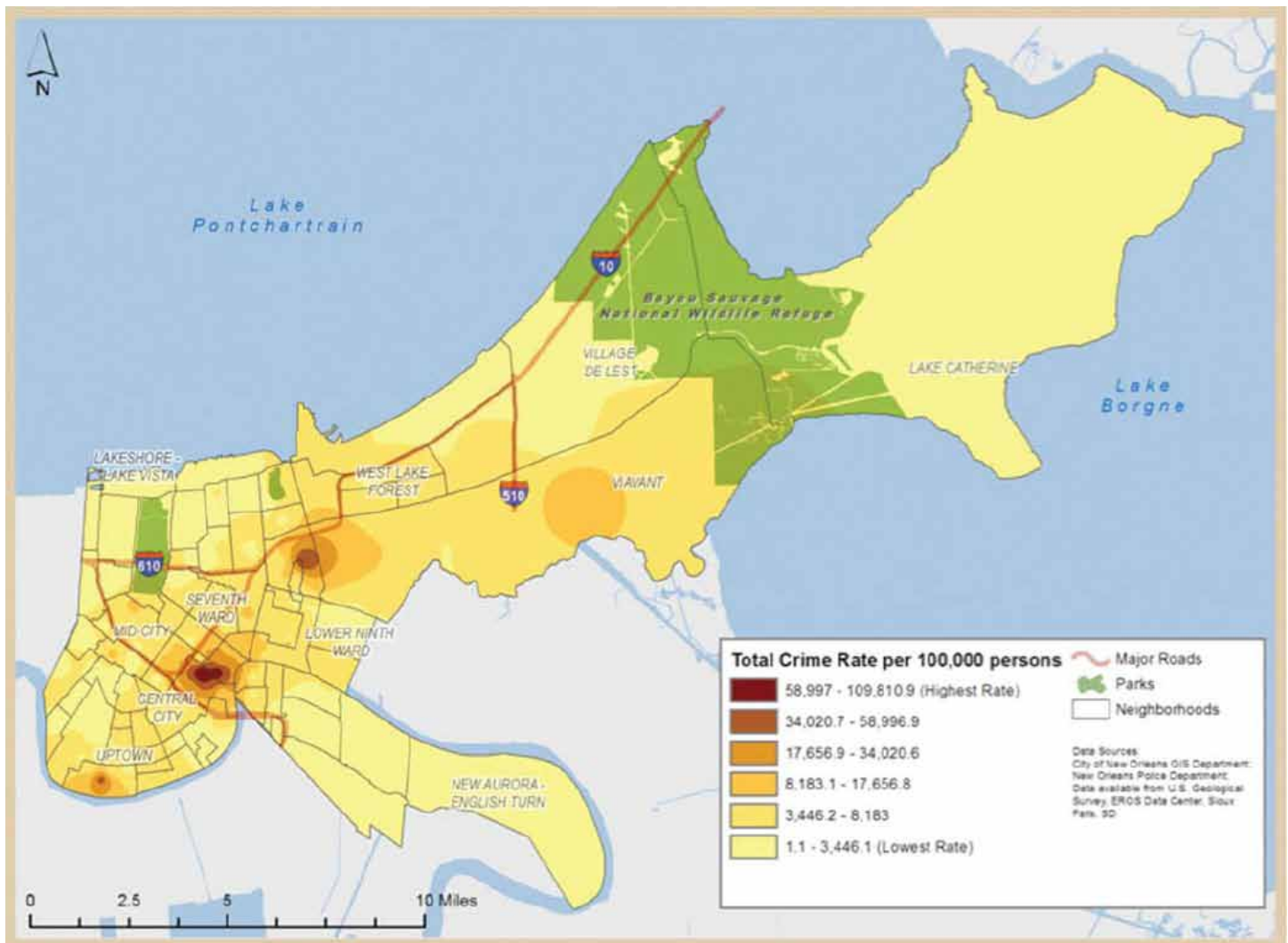
(b) Department of Justice Federal Bureau of Investigation. Crime in the US 2009

The U.S. Census Bureau has estimated that the population of Orleans in 2009 is still 20.2% lower than in 2004.^{17,21} In light of the massive displacement caused by Katrina, there are legitimate questions surrounding the effect the storm had on criminal activity within the Parish. Given that crime varies significantly by state and county and by census tracts and blocks within Orleans, it is important to understand not only how patterns of criminal activity have changed since Katrina, but also how the social and economic factors within those tracts and blocks affect criminal activity, especially since crime rates are affected by characteristics of place, such as urbanization and age of the population.

We used several data sources to investigate the level of crime in smaller geographic areas within Orleans. The New Orleans Police Department (NOPD) provides data on service calls by location in the Parish that can be broken down by specific crimes.²² In addition, annual homicide statistics are prepared in reports detailing the approximate location of each event.^{23,24}

In 2009, the service call data identified a total call for service rate of 3,592.8 per 100,000. Calls related to violent crimes averaged 510.6 per 100,000. The homicide data for 2008 and 2009 indicated a homicide rate over the two-year period of 56.4 per 100,000. By census tract, there were 88 tracts (48.6%) with a higher total crime rate, 86 tracts (47.5%) with a higher violent crime rate and 68 (37.6%) with a higher homicide rate than Orleans as a whole.

Map 11: Total Crime Rate per 100,000, by Census Tract



Map 11 illustrates the total service call rate for 2009. The map indicates that the worst crime areas in Orleans were in the Tulane/Gravier area, Tremé/Lafitte, the Desire Area and West Riverside.

Map 12 focuses only on service calls for violent crimes. Once again, Tulane/Gravier and Tremé/Lafitte have the comparatively highest rate with a slightly diminished rate in the Desire area.

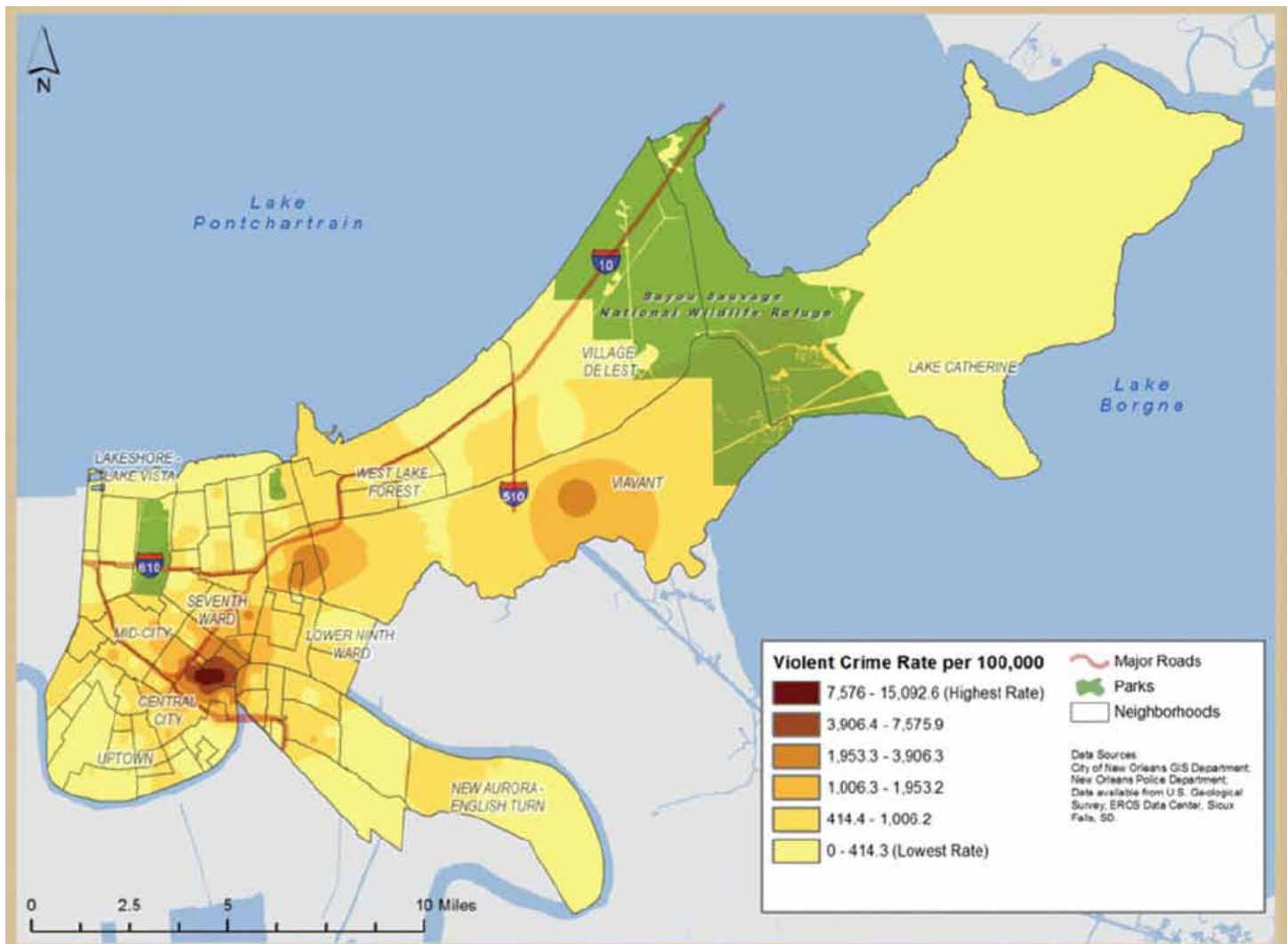
The effect that large scale migration, similar to what happened in Orleans Parish post-Katrina, has on crime rates is largely unclear. The immediate loss of 48.9% of the population from 2005 to 2006 left previously densely populated areas with few residents.^{25,26} The density of a population can have a large effect on crime, particularly in urban areas where poverty is segregated from the suburbs.²⁷ The population displaced from Katrina was, in general, more economically disadvantaged.²⁸ Some areas

receiving displaced individuals from Orleans after Katrina have seen increases in their crime rates, in all likelihood largely due to the increased density and residential segregation of poverty-stricken populations.^(Varano et al)

Previous studies suggest that natural disasters tend to bring communities together in collective solidarity, which may also be a factor in the large drop in the crime rate immediately following Katrina.^(Varano et al) To account for the effect of Katrina-related displacement on the fluctuating crime rate, we look at geographical differences in the return of the population following Katrina and the crime rate of the area in 2009.

To estimate the return of the population, we used a comparison of the households receiving mail in June of 2005 (two months prior to Katrina) to those receiving mail in December of 2009. Based on this estimate, 78.5% of the households that were occupied prior to Katrina were occupied in 2009. This varies

Map 12: Violent Crime Service Calls per 100,000, by Census Tract



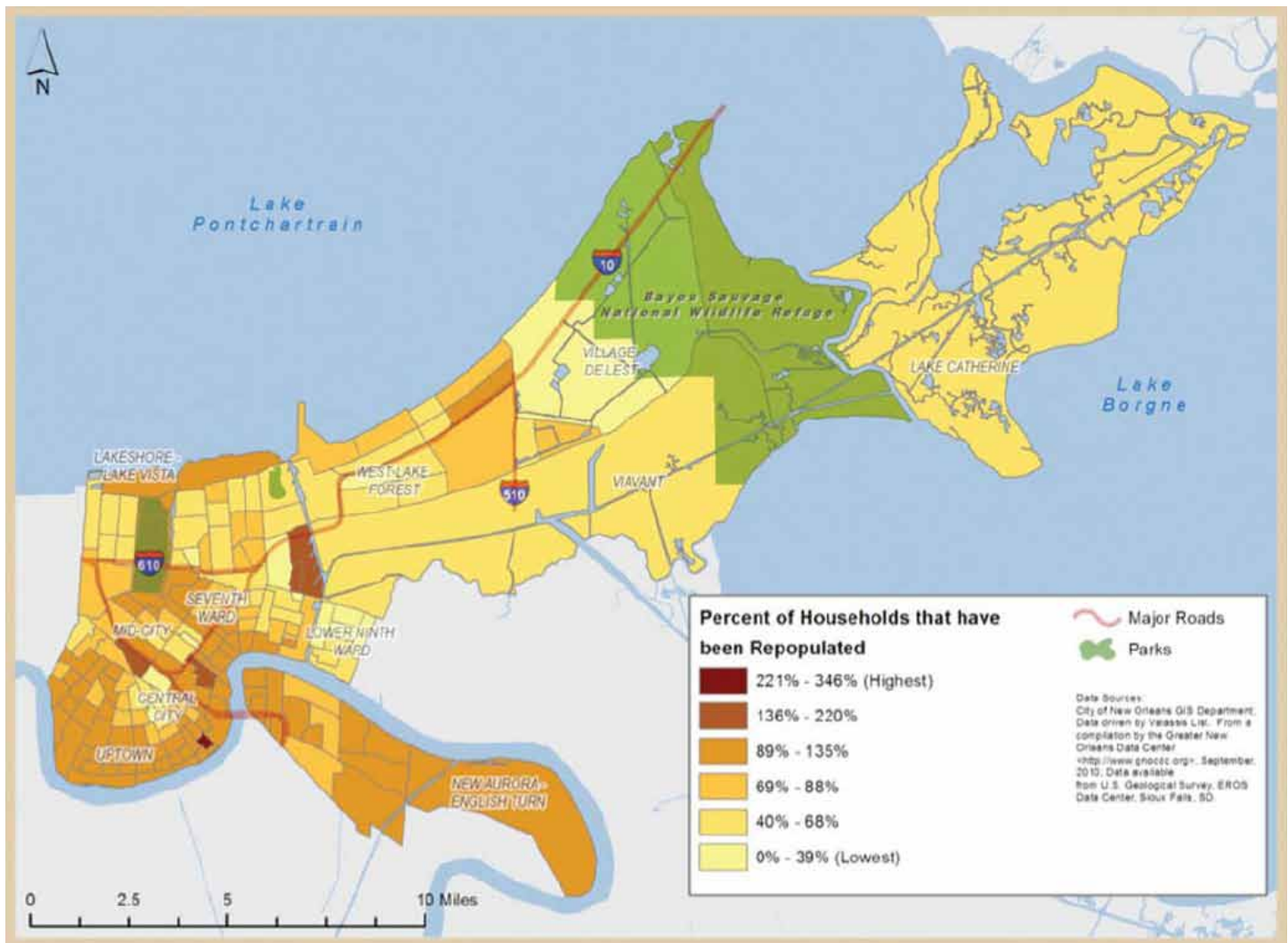
by census tract, with estimates ranging from a 0.4% return rate in Gentilly Woods to a 345.6% increase in the lower Garden District between Felicite Street and Josephine. As Map 13 indicates, the neighborhoods of Eastern Desire Area, the Lower Garden District, Gert Town (including Xavier University area), the Desire Development and the Tulane/Gravier area (including the Interim Louisiana State University Public Hospital) have more than repopulated following the storm. The neighborhoods of Tremé, Lower Ninth Ward, St. Bernard area, B.W. Cooper, Lake Catherine, Viavant/Venetian Isles have remained below previous levels.

After controlling for other factors known to be related to crime (population density, age, race and socioeconomic status as measured by the CRI), we found a statistically significant relationship between repopulation and crime. The model for violent crime was more highly predictive than for total crime but both models show that as repopulation increases from

tract to tract in 2009, crime (in particular violent crime) goes up. Our research indicates that the contribution of CRI to violent crime rates was greatest, followed by age ratio, racial composition, and repopulation.

Orleans neighborhoods are being repopulated by new and returning residents at different rates—a large number of residents are still displaced and many of them do not plan to return.²⁹ Given the complexity of factors that predict crime in lieu of massive displacement and repopulation, the findings here should be considered preliminary, but do indicate a significant relationship between both community risk and repopulation and crime.

Map 13: Percentage of Households Receiving Mail in December of 2009 Compared to June of 2005, by Census Tract



Educational Attainment and Crime

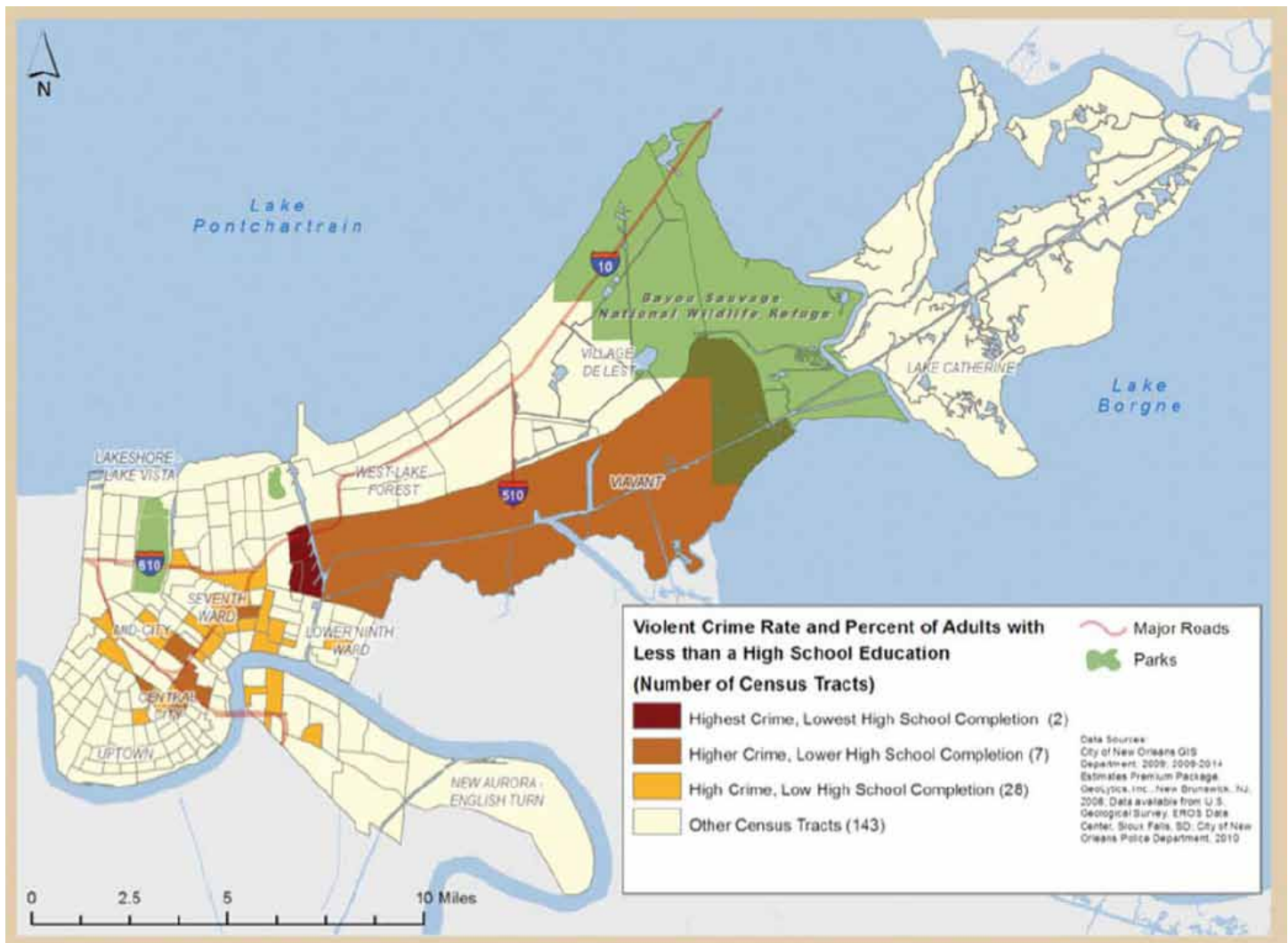
Socioeconomic characteristics also play an important role in how crime is distributed.^{30,31,32} Educational attainment is an important factor in New Orleans because of the effect a more highly educated population has on crime. According to some estimates, a one-percent increase in the percentage of men in the U.S. ages 20–60 graduating from high school would save \$1.4 billion per year in reduced costs from crime incurred by victims and society at large.³³ Education improves the material well being of the population and raises the opportunity costs of crime.²⁷ An improvement in the educational attainment of the population could be a legitimate factor in improving the crime problems Orleans is currently facing.

Using 2009 data from the New Orleans police department crime maps, we found a moderately strong correlation between the rate of calls for violent crime and educational attainment at

the census tract level and between the rate of calls and the CRI. The relationship between education and total crime was not significant. Similarly, using 2008 and 2009 homicide data from the Homicide Division Annual Report, we found a moderately strong correlation between homicides and educational attainment at the census tract level and between homicides and CRI.

Using 167 tracts in Orleans, we analyzed the relationship between the percentage of the population with less than a high school education and total crime and violent crime. We did not find a significant correlation between education and total crime service calls, but we did for violent crime. Census tracts with a higher percent of the population with less than a high school education in 2009 tended also to have a higher rate of violent crime service calls.

Map 14: Co-occurrence of Low Educational Attainment and High Violent Crime Service Call Rate



Map 14 illustrates where high rates of violent crime are consistent with high percentages of the population with less than a high school education. The Desire Area and the Desire Development had the highest crime rates with highest percentage of the population lacking a high school education. The Central Business District, Central City, St. Roch, Tulane/Gravier and Viavant are also areas of concern.

Summary

In sum, high crime rates continue to be of concern in Orleans Parish. High crime rates pre-Katrina were followed by a period of volatility in crime rates as Orleans repopulated, with rates dropping somewhat between 2007 and 2009. Our analysis of the relationship between repopulation and crime rates found that repopulation rates vary dramatically by neighborhood

across the city and that repopulation rates do have a significant relationship to crime. While higher repopulation rates appear to be associated with higher crime rates, characteristics of the neighborhood, such as poverty, complicate this picture.

Looking further at the socioeconomic characteristics of neighborhoods that are related to crime rates, we find that both educational attainment and community risk or poverty are important predictors of violent crime rates, as measured by volume of service calls received by the police department. Educational attainment of adults in a neighborhood is also strongly linked to other socioeconomic characteristics of the neighborhood. The link to current educational achievement and future educational attainment of children in those neighborhoods, however, will require further analysis as well as time to analyze the results of school improvement efforts currently underway in Orleans.

IV. Conclusions: Education as a Predictor of Community Risk, Health Status and Crime Rates

The data presented in this report strongly suggest that educational attainment is powerfully linked to community risk, health outcomes and crime rates. Furthermore, people with low educational attainment tend to be concentrated in specific neighborhoods and census tracts. Therefore, a policy agenda should aim to remove structural barriers to quality educational options in these neighborhoods, and therefore, increase chances for higher educational attainment among youth and adults who live in these neighborhoods.

If New Orleans is to create a lasting reduction in behaviors that lead to violence, a policy agenda must aim to keep children in quality schools, as well as to provide access to educational services for youth and adults who have been out of school for significant periods of time. Notwithstanding broader school reform initiatives, the following recommendations seek to fill existing educational gaps that are not being sufficiently addressed.

Keeping Students in School and Out of Prison

The phrase “disconnected youth” describes youth who are engaged in neither traditional education nor the formal labor market. This report follows the definition and methods used to determine the number of disconnected youth in the Greater New Orleans Data Center Report, “Building an Inclusive, High-Skilled Workforce for New Orleans’ Next Economy (Sellers, Perry, Sams-Abiodun, Plyer, & Ortiz, 2012). The researchers use a definition that includes only youth who are low-income, because according to experts, disconnected youth who are low-income may lack the financial and social supports to ever reconnect to school or work, severely limiting their earnings potential and imposing significant costs on society (Belfield, Levin, & Rosen, 2012). “Using a definition that includes only low-income youth between the ages of 16 and 24 with less than an associate’s degree, there were roughly 14,000 youth in the New Orleans metro area during the 2008-2010 period who were neither enrolled in school nor employed. These disconnected youth represented about 10 percent of all youth between the ages of 16 and 24” (Sellers, et al., 2012, p. 9).

By definition, a youth’s disconnectedness probably begins when they are disengaged from school, since expulsion and suspension from school may increase the likelihood that youth will engage in criminal activity. Louisiana’s zero tolerance school policies contribute to higher rates of out-of-school time without instruction (Dahir, 2010). According to state policy, “Out-of-School Suspension: Student is temporarily prohibited from participating in school, and no provision is made for instructional/educational services during this period” (Charter Discovery).

According to the Office of Civil Rights (OCR), the total number of Louisiana students suspended out of school at least once per year increased from 75,601 (9.7% of students) in 2000-2001, to 86,120 (12.1% of students) in 2007-2008 (Sullivan & Morgan, 2010). Louisiana’s rate is almost twice the national rate of 6.9%. OCR also found that suspensions increased from 72,473 (9.3%) in 2000-2001, to 91,649 (12.9%) in 2007-2008.

Using Louisiana State Department of Education data, Families and Friends of Louisiana’s Incarcerated Children (FFLIC) found that the Recovery School District (RSD), the largest public school district in New Orleans, suspended 3,537 students, or 1 in 4 students, at least once in 2007-2008 (approximately 28.8% of students) in the schools it directly manages (Sullivan & Morgan, 2010). This is more than twice the statewide rate in Louisiana and over four times the national rate.

Reducing early school departure is essential to create healthy communities. To do so, schools must increase both the amount of quality time for students in school and student retention. Expulsion not only takes troubled students out of structured learning environments, but it puts students in peril for early school departure, as well. Already troubled students often find difficulty getting into another school. In a highly decentralized school environment like New Orleans, students can find themselves without a formal safety net and more vulnerable to criminal activity.

A policy agenda that aims to dramatically reduce violence should develop a range of policies that reduce the number of school-based arrests, as well as expulsions and long-term suspensions in New Orleans schools.

Policy Recommendations

- Develop a centralized/uniform expulsion policy among charter and non-charter schools within Recovery School District and New Orleans Public Schools.
- Provide standardized training for school resource officers, security guards or school-based police officers.
- Institutionalize a bi-annual external review of expulsions and long-term out of school suspensions (over one day).
- Eliminate the practice of expulsion in the primary grades with exception of use or attempted use of a deadly weapon.
- Offer alternatives to incarceration including *school-based* teen courts, peer mediation programming, and restorative justice programming.

- Create greater disincentives to expel or suspend students for more than one day. Suspensions and expulsions should be weighted against a school's performance score.
- Make homework services mandatory for all out-of-school suspensions and expulsions.
- Conduct an annual formal assessment of the needs of truant and youth who would qualify as "disconnected."

In addition, the Juvenile Justice Project of Louisiana should develop memoranda of understanding (MOUs) between the Orleans Parish Juvenile Court (OPJC), RSD, New Orleans Police Department (NOPD), and the Center for Restorative Approaches. The MOUs should seek to reduce school-based arrests for low-level offenses that could be categorized as criminal offenses but that traditionally have been dealt with by school officials:

Increasing Opportunities for Those Who Have Been Incarcerated

Since most jails and prisons in Louisiana do not have educational services, incarceration suspends a student's formal education. In addition, incarceration exposes individuals to peer groups who have exhibited at-risk behaviors and have high illiteracy rates. Both of these factors demand that a policy agenda form around reentry and preparedness of the formerly incarcerated. If individuals cannot have access to work and educational opportunities, recidivism becomes more likely. In addition, record expungement is critical for individuals to attain family-sustaining jobs. The number of potential expungement motions (400) compared to the number of successfully filed motions (40) last year may improve if the services are less expensive or easier to access.

Policy Recommendations:

- Fund and create reentry programs that meet the needs of the New Orleans metro area.
- Provide educational services (at least GED prep) in all correctional facilities.
- Decrease the cost of an expungement to levels that show significant increases in the expungement completion rate.
- Many individuals who request an expungement have low-level drug offenses, such as possession of marijuana, first offense.ⁱⁱⁱ Youth offenders of low-level drug offenses should receive an alternative to incarceration and mandatory drug counseling. Upon completion those records should be destroyed.

- Automate the removal of criminal records after 10 years.
- Provide free expungement services to the formerly incarcerated by offering monthly bazaars.

Addressing the Mental Health Needs of Youth and Families

Schools are often the most convenient places to assess and address the mental health needs of youth and their families. If students are suffering from mental health issues, it becomes less likely that structural or institutional remedies to violence will take hold. As noted in the report, the various stresses of urban poverty have an impact on many aspects of health. However, the aftermath of Hurricanes Katrina and Rita reaped havoc on students and families, as well as on the mental health services they were afforded. Post-Katrina challenges compound the mental health issues typically associated with the urban poor.

Policy Recommendations

- Create an automatic mental health referral system for students who receive more than two disciplinary actions per semester (half-year).
- Increase schools' and families' fiscal capacity to make school-based mental health services available to students.
- Increase the number of inpatient beds for adolescents and provide transitional services such as counseling and outpatient therapy.
- Make assurances that schools dedicate appropriate resources to social-emotional wellness.

Develop Student-Centric Policies

Student-centric policies seek to maximize input from students so that decision-makers can make more informed decisions.

Policy Recommendations

- Authorize system-wide student satisfaction surveys that incorporate students as researchers.
- Develop peer health educators that conduct school climate studies, which include health and mental health assessments, social emotional wellness batteries and in-school needs assessments.
- Ensure that per-pupil expenditures follow children to traditional and non-traditional educational settings.
- Ensure that state allocations to supportive services are placed at levels that meet the needs that are assessed by students in traditional and non-traditional settings.
- Formalize ethnic studies programs in schools that receive public funding.

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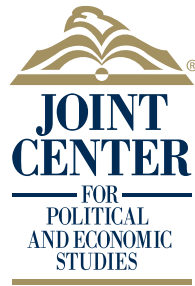
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