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The University of Southern Mississippi

The Manifestation of Blight: Examining the Effects of Inner City Decline on Populations in the Bronx, New York and New Orleans, Louisiana

by

Bianca Stewart

A Thesis Submitted to the Honors College of The University of Southern Mississippi in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in the Department of Geography and Geology

May 2016

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Abstract

Urban decline, and the developments that trigger a collapse among formerly prosperous cities, is a phenomenon that is capable of leaving a lasting mark on any urban system. The collapse and disintegration of the urban landscape carries a variety of facilitators, and with that, this research sought to examine two distinct representations of urban decline and the populations that shifted in tandem with blight: the New York City fiscal crisis of the 1970s and post-Katrina conditions in New Orleans, Louisiana. Through New York City's fiscal crisis and the act of condensing a city in hopes of rectifying urban decline, known as planned shrinkage, we see a prime embodiment of urban blight. Alongside the periods of inner city decay are decades of population decline, including a 21% decline in population specifically in the Bronx borough. Such a considerable decline between 1970 and 1980 was likely due to a variety of constituents: uninhabitable housing units, an average of 12,000 arson fires in 1975, and public health setbacks. A representation of blight also took hold in August 2005 when eighty percent of New Orleans, Louisiana was flooded in fifteen to twenty feet of floodwaters during the effects of Hurricane Katrina. Years following the storm, Orleans parish saw a population decline of 29%, likely due to post-Katrina population displacement and flaws in the physical infrastructure. Ultimately, what this research project saw was that there was a strong relationship between population decline and socioeconomic classes in both the Bronx, New York and New Orleans, Louisiana.

Key terms: Urban geography, urban blight, population decline, demographics, New York City, New Orleans

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Dedication

To Jennifer Stewart, Milagros Cruz, and Camille Darden: Thank you for being such a driving force in my life while showering me with the necessary tools to love, celebrate, and appreciate my worth.

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Chapter 1: Introduction

The fleeting life and subsequent collapse of intricate city structures spanning the globe has evolved into a phenomenon, often with terrible outcomes. The overall disintegration of urban landscapes, which were once constructed to accompany industrial processes, is now seen as unavoidable. In most cases, this very disintegration marks the end of an era. Socioeconomic drawbacks that are woven beneath complex urban environments have resulted in a society that is choosing flight and abandonment of inner city neighborhoods. This wide-scale desertion has unfolded in some of America's most prominent cities, but the symptoms of blighted neighborhoods and shrinking populations is one that has proliferated across the globe. While blight and neighborhood abandonment is established as a global phenomenon, the progress of urban shrinkage and inner city decay brought about an unprecedented wave of destruction in two of America's most valued metropolises: New York City and New Orleans, Louisiana.

We see two prime embodiments of blight, first with New York City's incapacitating fiscal crisis of the 1970s and the act of condensing a city in hopes of rectifying urban decline, and second after August 2005 when 80% of New Orleans, Louisiana was submerged in fifteen to twenty feet of floodwaters during the effects of Hurricane Katrina. Hurricane Katrina is the third most intense hurricane and the most expensive hurricane to make landfall in the United States, and so it goes without saying that Hurricane Katrina completely devastated New Orleans (Johnson, 2006). For example, in neighborhoods such as the Lower Ninth Ward, the damage of about 3,000 residential buildings were too severe to reclaim (New Orleans Neighborhood Rebuilding Plan, n.d.).

By using general population figures provided by the United States Census Bureau as well as figures on income and race for the Bronx borough and New Orleans, Louisiana, this research will attempt to assess the magnitude of the catalysts for inner city decay exercised by the 1970s New York City fiscal crisis model to be compared against the inner city decay and urban decline in the New Orleans-Metairie-Kenner Metropolitan Statistical Area. Although policies are often utilized to aid in a city's growth, New York City and New Orleans have shown that a city's growth is far more reliant upon a foundation of essentials such as a strong tax base and a considerable population.

Chapter 2: Literature Review

2.1 Defining Urban Decline and Urban Blight

As the urban landscape expands to meet the demands of the evolving population, the possibility of a declining city is one that should be regarded as a crisis with great risks and recovery patterns that are likely to be gradual. The complexity intertwined within every urban mechanism requires consistency, but a "shrinking identity" is expanding worldwide as industrial patterns are fading away (Haase et al., 2011; Martinez-Fernandez et al., 2012). Cities that are subjected to decline by way of a phenomenon known as "urban shrinkage" can be further defined as metropolises that have experienced a substantial population loss, reduction in employment, or an extended economic decline over the past 40 to 50 years. At its worst, population migration can give rise to the overall abandonment of land that once housed commercial and industrial structures alongside stretches of neighborhoods and sound housing (Reckien & Martinez-Fernandez, 2011). Urban shrinkage is not a new development. This trend took place during periods of economic downturn, wars and revolutions, racial segregation, and natural cataclysms that caused the overall population of a given area to decrease tenfold. For example, various markets within the United States that were established for industrial freights failed after the 1929 Stock Market Crash and the Great Depression of the 1930s. Trade routes shifted gears in tandem with the industries that moved to more profitable regions (Reckien & Martinez-Fernandez, 2011). By the 1960s, the United States saw about 6,000 declining urban centers. As expressed by Northam in "Declining Urban Centers in the United States: 1940-1960", an urban center is established by the Bureau of the Census to include all incorporated and unincorporated areas with a population of 1,000 or more (Northam, 1963).

By incorporating population statistics from the Census of Population, Northam determined that a large percentage of the declining urban centers lies within areas that are small in size. On the contrary, booming cities such as Boston, Buffalo, Pittsburgh, and Minneapolis also saw considerable declines within their urban centers (Northam, 1963). Similar cases of urban shrinkage, often labeled as 'urban decline' within American urban history, occurred during a time when low-income residents reallocated to middle-class communities. As the poorer populations moved to first-tier suburbs, the middle-class occupants would shift to an upper echelon of suburban neighborhoods (Martinez-Fernandez et al., 2012).

With every case of this uneven shift in the spatial distribution of inner city systems, officials and city planners are finding urban shrinkage more difficult to manage, especially when it is influencing the land-use of said inner city. There is a "doughnut

effect" that many United States' cities become subjected to in the wake of a city's decline; "doughnut effect" can be attributed to suburbanization. With the "doughnut effect", the crux of most cities are void of a strong populace while the outlying neighborhoods, the "suburbs", are able to flourish. Other processes that demonstrate the urban shrinkage trend include the neglect of urban infrastucture. The perforation of grid cities are revealed through a large number of unoccupied land within urban towns. "Urban wilderness" is often applied when describing urban land that is yet to be utilized. In most cases, falling demand for resources such as schools and public transportation manifests once suburbanization pulls population away from the traditional city centers (Haase et al., 2011).

Certain studies that are presented to aid in quantifying the urban decline phenomenon describe urban shrinkage as a symptom of other driving forces. In "Forty Theories of Urban Decline", Bradbury et al. (1981) examines the "symptoms" of urban decline by classifying them into a range of theories, such as disamenity avoidance theories, where populations and businesses are migrating from the inner cities into the comfort of outlying suburban areas. By doing so, residents are leaving behind the unfavorable elements that have been established within the barriers of urban towns such as high crime rates. Similarly, economic evolution theories would attribute to workers and commuters living closer to their place of employment with businesses moving to locations near the workforce. This theory depicts a trend where occupations are migrating to the suburban areas and employees are following. As more employees, or inhabitants in general, move to the businesses, the demand for companies and corporations grow.

Bradbury et al. (1981) also alludes to biased policy theories, which occur when governments and federal guidelines are inclined to assist in new developments on empty property as opposed to restoring the current infrastructure in urbanized locations. Also, this theory would argue that federal programs are one-sided as to where development will occur. This trend is especially popular in the Western and Southern United States (Bradbury et al., 1981). Lastly, positive upgrading theories state that Americans want residential living that is not associated with an area of high density. If an area of high density is their sole option, they will likely migrate to suburban areas of lower density from the inner city conjestion. Many Americans who make the shift as depicted in the positive upgrading theories view suburban sprawl as a long-term economic gain (Bradbury et al., 1981).

Urban blight, similar to urban shrinkage, is determined in a number of ways. Some measure the impairment of an urban system as a gathering of five neighborhood constituents: (1) abandoned buildings, (2) unkempt property, (3) vacant lots, (4) graffiti, and (5) litter. Miekley (2008) considers crime rates and dwindling property values to show visual clues of urban blight (Miekley, 2008). Aside from the abandonment of inner city neighborhoods, urban blight is a phenomenon that is difficult to quantify or attribute to one sole explanation. Urban planners and officials must consider the wear and tear of land in an urbanized area, among other factors. Through Weaver and Bagchi-Sen's research on Buffalo, New York, blight patterns within a short period of time fail to illustrate the difficulties that arise in decaying cities. Also, records in Buffalo prove that there is a strong correlation between a blighted neighborhood and socioeconomic factors within those neighborhoods (Weaver & Bagchi-Sen, 2013).

There are several elements that give blight its visual appearance and many variables that may alter the urban community and environment into something uninviting. A 1973 study was performed on 3,005 Americans who represented all ranks within a given socioeconomic and demographic class, ages 16 and older. By questioning elements of a blighted community such as auto junkyards, rundown buildings, and overhead power and telephone wires, each interviewee was asked to rank an assortment of problems such as the ones listed above from "very serious" to "not serious at all" (Bales, 1985). Allowing variations within the group of individuals being interviewed also allowed for variation on the assessment of visual blight and the signs that stood out regarding "visual pollution".

Of the many problems, 46% of those interviewed found that trash and litter in their streets should be viewed as a "very serious problem". Other serious causes for visual blight, according to those represented in the survey, were rundown buildings and auto junkyards with 36% and "unattractive construction" with 22%. Factors such as open spaces for trailers or mobile homes, and billboards plastered along the highways garnered higher percentages under the umbrella of "somewhat serious" or "not really serious". In fact, about 71% of those being interviewed concluded that a common area to house trailers or mobile homes was not a serious factor and did not play as big of a role in the display of visual impairment within an area (Bales, 1985).

2.2 The New York City Fiscal Crisis

In 1975, New York City was left without the economic means to generate ongoing resources and growing services to those in need. This fiscal crisis sparked at the height of long-term political and economic adjustments within the city, including a 13.5% job loss

in 1969 and a worldwide recession and oil shortages, both of which contributed to the susceptibility of this metropolis (Freudenberg et al., 2006; Glazer, 1987). Between the years of 1967 and 1974, New York City's short-term borrowing debt was increased by more than 700%. New York City bankers refused to provide funding, and the federal government also refused to give financial assistance. Federal officials stationed in Washington depicted New York City as a "profligate spender that coddled its poor" (Freudenberg et al., 2006). During the time of its financial collapse, the New York City mayor and the city government as a whole demonstrated an unfit attitude. The mayor was adamant on meeting all monetary requirements; the city defaulting was hardly an issue to him (Ott & Yoo, 1975).

In order to balance New York City's outstanding budget, the Emergency Financial Control Board (EFCB), comprised of businessmen, bankers, and city officials, authorized budget cuts on New York City public services and in the city workforce. With a budget of \$13 billion in 1975, the EFCB requested that the city reduce \$200 million in spending. The budget reduction was approximately 6% of all expenditures. Between 1974 and 1977, the Department of Heath saw a 20% budget cut. By 1977, 1,700 of its staff members were dismissed and 7 of 20 district health centers were terminated (Freudenberg et al., 2006).

Due to the municipal and federal strategies exercised by the government, the quality of life for those in low-income environments worsened over time. In a 10-year span, the number of low-income residents increased in addition to the range of epidemiological setbacks. Once the budget cuts were implemented, the Department of Health was forced to cut its Tuberculosis control program. Starting in 1978, Tuberculosis

rates surged, and continued to soar until 1992. Studies show about 52,000 cases of Tuberculosis in New York City as a direct result of New York City's economic crisis (Freudenberg et al., 2006; Wallace & Wallace, 2011).

The demographic shifts that took place in New York City during the 1970s fiscal crisis left most of the minority communities displaced from their homes. In turn, their neighborhoods collapsed as a result of the economic downturn that burdened the city. In order to compensate for the decay and vulnerability of every borough, New York City mayor, John Lindsay, would employ a controversial policy, "planned shrinkage", starting in the late 1960s (Wallace & Wallace, 2011). Viewed as a channel to counterweigh the diminishing tax revenues in New York City, the dynamics of planned shrinkage carried controversy. Planned shrinkage can be described as a strategy that required municipal services to be extracted from poor and racially isolated communities (Wallace & Wallace, 2011).

The Lindsay Administration alongside the Rand Corporation assembled to form the NYC-Rand Institute to promote efficiency by analyzing proposed policies. Subsequently, firefighting units were reduced within all five of the New York City boroughs. There were various policy changes between 1972-1976 that contributed to the magnitude of fires, such as closing companies from high fire-incidence areas; an overall reduction in firefighters; a decline in hydrant inspections and the repairing of defective hydrants; and a decline in building inspections that resulted in many fire violations that were disregarded (Wallace & Wallace, 2011).

A notorious case of housing destruction, urban decay, and extreme fire outbreaks gave urban blight in New York City a new label – the "South Bronx phenomenon"

(Wallace & Wallace, 1990; Wallace & Wallace, 2011). Physical structures that were once sound were inadvertently altered into blocks of wastelands, unable to maintain urban life. Studies show that planned shrinkage of the New York City Fire Department sparked a chain of structure fires and severe housing loss in some of the most concentrated and impoverished neighborhoods (Wallace & Wallace, 2011; Glazer, 1987).

<u>Borough</u>	<u>Neighborhood</u>	Number of Removed Companies
Manhattan	Lower East Side Lower West Side Times Square Upper West Side Harlem	4 3 (2 restored) 1 2 3
Brooklyn	Brownsville Bedford-Stuyvesant Crown Heights North Greenpoint Park Slope Red Hook Brooklyn Heights	6 2 1 2 (1 restored) 2 (1 restored) 1 1
Bronx South	Bronx City Island	7 (1 restored) 1 (restored)
Queens	Flushing Richmond Hills Rockaway	1 1 2
Staten Island	Stapleton Tottenville	1

Table 1 – Fire company closings in New York City between 1972-1991. *Note*. This table was adapted from *Consequences of massive housing destruction: the New York City fire epidemic*, p. 397, by Deborah Wallace and Rodrick Wallace, 2011, Building Research & Information.

The expanse of the South Bronx, comprised of Mott Haven, Melrose, Morrisania,

Hunts Point, Crotona Park East, and everything south of Fordham Road, bore a resemblance to the American nightmare long before the 1975 Fiscal Crisis. With 75,000 abandoned buildings, the South Bronx landscape was vacant and void of progression. The many attempts at urban renewal, defined as taking possession of property deemed "blighted" with the goal of redevelopment, such as the Cross Bronx Expressway and

"towers in the park" further eliminated the community networks and solidified a state of decay (Kahane, 2008; Fullilove & Wallace, 2011).

Attributable to an estimated 12,000 arson fires, as well as 7 firefighting units stripped from the borough, one-third of the housing in the South Bronx was destroyed by the time of the 1980 housing inventory (Glazer, 1987). In "Scales of Geography, Time, and Population: The Study of Violence as a Public Health Problem", Deborah and Rodrick Wallace also concluded that at the core of the housing destruction of the 1970s, population in the South Bronx was maldistributed. The uneven distribution of populations, likely overcrowding, and certain socioeconomic ranks show a correlation between the condensing of inner city communities and violence in the 1970s, 1980s, and 1990s (Wallace & Wallace, 1998).

2.3 New Orleans and Hurricane Katrina

As the United States National Hurricane Center (NHC) announced the development of Tropical Depression Twelve turning near the southeastern Bahamas in the Caribbean on August 23, 2005, the city of New Orleans, Louisiana did not consider the extent of this Atlantic cyclone. As it churned in the warm waters of the Gulf of Mexico after upgrading to hurricane status, however, Hurricane Katrina seemingly strengthened overnight with an imminent trail: Mississippi and Louisiana (Comfort, 2006; Gramling, 2005). At 6:10 a.m. on Monday, August 29, Hurricane Katrina made landfall just east of New Orleans as a Category 3 storm on the Saffir-Simpson scale (Paradue et al., 2005).

What resulted was nothing short of a large portion of New Orleans becoming submerged over the course of 8 hours. Citizens were stranded on rooftops while about 25,000 people assembled in the New Orleans Superdome, deprived of sufficient food and

water. By 2:00 p.m. on August 29, the 17th Street levee system developed by the United States Army Corp of Engineers failed under the combination of Katrina's sustained onslaught and flaws in the overall levee design. Already positioned several feet below sea level on clay soils, much of New Orleans was flooded by Lake Pontchartrain with water levels rising above 3 meters, or about 10 feet, in some regions (Comfort, 2006). The quality of life deteriorated as sources of pollution drifted about the floodwaters. The foundation for pollution included: (1) sewage leaking from wastewater systems, (2) septic tanks, (3) gasoline from submerged cars, (4) chemicals derived from industrial plants and facilities, and (5) decaying vegetation and organic rubble (Paradue, et al., 2005).

The Lower Ninth Ward was especially decimated by the 17th Street levee breach. Located one mile from the Industrial Canal to the west and the St. Bernard Parish border to the east, this community is positioned over what can be described as "precarious geography". Surrounded by a below-sea-level depression between ribbons of higher ground, floodwaters endured for weeks following the storm (Landphair, 2007). Regarded as the most enormous urban and regional diaster in United States history, Hurricane Katrina just about led a portion of the city of New Orleans, Louisiana to ruin (Olshansky, 2006; Comfort, 2006).

While New Orleans was likely to obtain some impairment following Katrina, an exercise using a model called ADCIRC (Advanced Circulation) revealed that Hurricane Katrina's storm surge should have left the submerged portions in tact and without flooding (Gramling, 2005). Nevertheless, by August 31, 2005, viable systems within the city were no longer operable, including water, communication, transportation, electrical power, sanitary sewers, and gas distribution systems. Due to the services becoming

inoperable, the city of New Orleans was declared "uninhabitable" and eventually, the state of Louisiana was deemed a Public Health Emergency by the Department of Health and Human Services (Comfort, 2006).

Recovery in New Orleans was not as swift as Hurricane Katrina. In communities such as the Lower Ninth Ward and Gentilly, the highest number of deaths occurred by drowning (Gramling, 2005; Landphair, 2007). With the evacuation plan for New Orleans not providing accommodation for residents without personal vehicle access, areas within the city were left with a below-city average repopulation. This plan-of-attack regarding effective evacuations lacked sensible options like those in the Lower Ninth Ward (Kammerbauer, 2013). From a city planning perspective, issues concerning environmental justice and restoration, levee reparation, and urban redevelopment were highly considered (Olshansky, 2006). This metropolitan region that can be classified as a 'complex system' –cities that are subjected to risks from physical, engineered, or socioeconomic mechanisms— saw more than \$200 billion in fiscal damages, the largest for any United States disaster (Comfort, 2006; Burby, 2006).

New York City and New Orleans, Louisiana experienced devastating setbacks that weakened the physical infrastructure, the economy, and created a prime display of blight under a declining population. While New York City was exposed to interruptions that were slow to impair the five boroughs, Hurricane Katrina's damage to portions of New Orleans was prompt. Before examining the diversity of urban systems as they experience some form of damage, it is essential to understand the numerous explanations for urban shrinkage or urban blight in a given community and how these phenomenons help drive certain catastrophes. By using the New York City fiscal crisis and the devastation

following Hurricane Katrina in New Orleans, the goal of this research aims to display how blight is exhibited in certain urban systems by using population and census statistics to examine the difficulties that arise when a city is driven to decline.

Chapter 3: Methodology

The overall goal of this comparative study is to assess the extent of urban decline and how various models of urban blight are considered throughout time. The disintegration of the many complex urban systems is, as previously mentioned, an "end of era" concept (Martinez-Fernandez et al., 2012). This research looks to focus on two distinct regions and occurences during different periods of urban decline: the 1970s fiscal crisis of New York City and the New Orleans Metropolitan area following Hurricane Katrina. By examining these two urban areas, this project compared the constituents that may have contributed to urban decline and any long-lasting effects regarding declining populations.

Data were acquired from the United States Census Bureau to study population changes in the Bronx Borough from 1960 to 1990. Population figures of the Bronx were also compared with the remaining four boroughs of New York City: Brooklyn, Queens, Manhattan, and Staten Island. In examining the New Orleans metropolitan area, made up of seven parishes, population data were acquired of the Orleans parish from 1990 to 2010 to determine a trend in population before and after Hurricane Katrina. Similar to New York City, the 20-year population data provided on Orleans parish was compared with the remaining six parishes: Jefferson, Plaquemines, St. Bernard, St. Charles, St. John the Baptist, and St. Tammany. All data were examined to calculate percent change on a

decadal scale in Microsoft Excel. Using IBM SPSS Statistics software, general population change and percent change graphs were produced for the two study areas.

Aside from the analysis on general population figures and their fluctuations, I also used Microsoft Excel to examine two Census groupings that visualized, or at least gave an idea as to who the residents were: income and race. For this additional study, I utilized two categories provided by the United States Census Bureau, households and families, to establish any income changes in all five boroughs of New York City between 1960 and 1990 and in all seven parishes of the New Orleans metropolitan area between 1990 and 2010. Given the chosen time frame of this study, all income numbers were adjusted to 2016 using a Consumer Price Index (CPI) inflation calculator provided by the Bureau of Labor Statistics (Bureau of Labor Statistics, 2016).

Regarding race in both study areas, I categorized the total population into three general groups: white, African American, and other. Subtracting the sum of those that categorized as white or African American from the total population, I was able to obtain a general number of those who were categorized as non-white or non-African American. Collecting those numbers allowed for me to divide each race by the total population in Microsoft Excel to capture a percentage. To capture a percentage of each race in each area, I divided the number associated with either race category by the total population in every borough or parish.

To keep the total population value anchored, I applied dollar symbols before and after the column letter associated with each category. For example, at the time of the 2010 census, Jefferson Parish had a population of 432,552. To keep that total population value, positioned at cell B23, absolute for all three races, I divided the number associated

with Jefferson Parish's white population –272,115, positioned at C23— by the value associated with the total population, and placed dollar symbols before and after the column letter B. The Microsoft Excel formula was displayed as "(RACE/\$TOTAL POPULATION\$)" for the percentage of those categorized as white in Jefferson Parish by the 2010 census recording. This Microsoft Excel method was applied for all race categories in the study areas.

Chapter 4: Results

4.1 Population in New York City and the New Orleans Metropolitan Area

All five boroughs of New York City were examined regarding general population figures between the years 1960 and 1990. Examining the population figures were done to give a clear representation of how each borough shifted in population due to New York City's economic crisis and the implementation of "planned shrinkage". In the Bronx borough, there was a 3% increase in population between the 1960 and 1970 census recording. In 1960, the population was 1,424,815; it increased to 1,471,701 by the next decade. Between the 1970 and 1980 census recording, however, population numbers declined 21%. Exact figures saw the borough decline in over 300,000 residents from 1,471,701 to 1,168,972. Figures would increase to 1,203,789 by the following decade (Figure 1).

Boroughs such as Brooklyn and Manhattan also saw a declining trend in population starting in the 1960s and continuing until the 1980s. In Brooklyn, New York, there was a 1% population decrease between 1960 and 1970 followed by a 14% decrease between 1970 and 1980. In Manhattan, there was a constant trend in decline during the

aforementioned years. Between 1960 and 1970, there was a 9% decline alongside a 7% decline in population during the following decade. Of all five boroughs, Staten Island is the only borough to show an increase in population. Between 1960 and 1990, Staten Island's population increased over 150,000 residents from 221,991 in 1960 to 378,977 residents by the 1990 census recording (Figure 2).

In the New Orleans—Metairie—Kenner Metropolitan Statistical Area, the seven parishes that make up this "Greater New Orleans" region were all examined from 1990 to 2010 to determine population decline post-Katrina (2005) as well as any trends that may have occurred prior to the storm. During this study, Orleans Parish was the only to have a decline in population between 1990 and 2000 (Figure 3). Between the 2000 and 2010 census recordings, four parishes –Jefferson, Orleans, Plaquemines, and St. Bernard—saw at least a 5% decline in population. Jefferson Parish saw a 5% decrease in population; this decline amounts to about 22,914 less from the 455,466 residents in 2000.

Parishes such as Orleans and St. Bernard saw the highest decline in population between 2000 and 2010. In Orleans Parish, numbers dropped from 484,674 to 343,829, or a decline of about 140,000 residents (29%). St. Bernard Parish lost over 30,000 residents between 2000 and 2010. With 67,229 residents according to the 2000 United States Census, numbers declined 47% by the following decade. The parishes of St. Charles, St. John the Baptist, and St. Tammany all saw an increase in population between 2000 and 2010. By the 2010 census, St. Tammany saw a 22% increase; St. Charles saw a 10% increase; and St. John The Baptist saw a 7% increase in population (Figure 4).

4.2 Income in New York City and the New Orleans Metropolitan Area

Regarding income in New York City, the data shows all five boroughs experiencing an income increase for both families and households between 1960 and 1970 (Table 2). During this decade, there was an increase of about \$4,000 for families in the Bronx borough. While results only show an increase of about \$800 for households in the Bronx, there was a trend of all five boroughs showing a greater income increase for families as opposed to households. In the decade that followed, all five boroughs saw a decrease in income for both families and households. The Bronx especially saw a considerable decline in income, with the borough bringing in nearly \$13,000 less for all families and about \$10,000 less for all households. Between 1980 and 1990, all five boroughs once again saw an increase in income for both families and households. The Bronx borough was somewhat of an outlier, only bringing in about \$8,000 for both families and households. Compare this to the borough of Staten Island that brought in about \$23,000 more for families and about \$18,500 for households, and the evidence of slower growth is apparent (Table 3).

All seven parishes in the New Orleans metropolitan area saw an increase in income between 1990 and 2010, but the median income for households and families in the Orleans parish was among the lowest (Table 4). In 1990, the median income for households in Orleans parish was \$33,493, and only increased about \$3,800 by the following decade. Similarly, the median income for families in Orleans parish was \$40,209, and only increased about \$4,000 by the following decade. Between 2000 and 2010, there were increases in income, but Jefferson, St. Bernard, St. John the Baptist, and St. Tammany all saw a decline in either households or families. For example, families of

the St. Bernard parish brought in nearly \$10,000 less with households bringing in nearly \$7,000 less in income. St. Tammany saw the worst decline in income for families, bringing in nearly \$18,000 less than the previous decade. Orleans parish, however, saw an increase in both categories, with a household income climbing from \$37,330 to \$40,709. Similarly, income for families increased from \$44,491 to \$50,163 between 2000 and 2010 (Table 5).

4.3 Race in New York City and the New Orleans Metropolitan Area

Race is a category that, until the 1980 census recording, showed a majority of the population categorizing as white for New York City. In New York City during the 1960s, 88% of the population in the Bronx borough categorized as white, with only 11% categorized as African American, and less than 1% categorized as other (Figure 5). During the 1970s, there was a similar trend; 73% of the population categorized as white, 24% categorized as African American, and 2% was categorized as other (Figure 6). By the 1980s, however, only 47% of the population was categorized as white while the remaining 53% were categorized as either African American or other (Figure 7). The 1990s saw only 22% of the population categorized as white in the Bronx; 30% of the population was categorized as other (see Figure 8).

In the New Orleans metropolitan area, all parishes were mostly categorized as white with the exception of Orleans parish. In 1990, 34% of the population was categorized as white, while 61% categorized as African American (Figure 9). The following decade saw only 28% of the population of Orleans parish categorizing as white while 72% was categorized as being African American or other (Figure 10). By the 2010

census recording, the numbers were similar to the 1990 census recording, with 34% of the population categorized as white and the remaining 65% categorized as either African American or other (Figure 11).

Chapter 5: Problems

5.1 Census Data Categories

As the United States Census Bureau reformed their approach to surveying and acquiring population data, census recordings would, in a sense, develop and expand to accommodate a variety of groups and races. Certain categories that may have been excluded from previous census records were surveyed and added for subsequent population groups. The inclusion of racial or ethnic groups coupled with the amount of information provided by the Census of Population and Housing proved to be an obstacle when it came time to analyze the given data on race in order to calculate a percentage among populations in New York City. For example, the census recording for New York City in 1960 provided what is known as a general characteristic of the population for each borough. In the 1960 report on race, there were only three categories: white, negro, and other races. For this census recording, there was also a category that denoted those who may have been born in Puerto Rico or had Puerto Rican parentage, which in turn could illustrate those who were categorized or labeled as Hispanic or non-Hispanic.

With that in mind, an individual who categorized as white or African American could also be labeled as Hispanic, given the fact that the aforementioned label is regarded as an ethnicity and is not reliant upon biological qualities that are present when discussing one's race. While it is imperative to include social cosntructs that aid in

molding one's ethnicity, I did not include whether or not an individual of the examined races were also associated with any Spanish origin as certain census recordings did not include that bit of information. General characteristics provided by the Census for New York City in the 1970s, for example, did not provide much aside from those who were categorized as either white or negro.

Due to the rigid nature of previous census recordings as it pertained to one's race, I was unable to get a true visual on the diversity of populations that resided in New York City during the period of urban decline. In fact, it was not until I examined the profiles that were provided for the New Orleans metropolitan area that I began to see a variety among a group of populations. For example, the demographic recording for 2000 surveyed those who were categorized as Asian, but included supplementary information such as those who were Asian Indian, Chinese, Japanese, and so on. The demographic profile for the New Orleans metropolitan area in 2000 also included those who were categorized as Native Hawaiian, but included subcategories such as Guamanian, Samoan, or Chamorro. Census recordings, especially earlier census recordings, for New York City were not as inclusive regarding the subject of race.

To compensate for the lack of information that was provided by earlier census demographic profiles, my sole option was to calculate a percentage of other racial groups within the study by subtracting the sum of those who classified as white or African American with the total population, given the fact that previous demographic recordings considered white and African American to be the dominant racial monikers. While I could have been far more successful in painting a diverse image for the New Orleans metropolitan area than New York City, I also wanted to maintain consistency throughout

the study of race and its significance in urban blight while ensuring that all races were accounted for. Throughout the process of acquiring a percentage of other races in the study areas during their respective periods of urban decline, it was, and is, very much clear that "other" denotes more than one minority race.

Chapter 6: Discussion

This study targeted two specific communities within the focal points of this research: the Bronx in New York City and the New Orleans, Louisiana. Though these regions differ geographically, this study showed that both areas suffered tremendously in the wake of urban decline. Although New York City is more populous when compared to the New Orleans metropolitan area, both areas showed a remarkable decline in the study area's temporal scale. In New York City, the 1970 census reveals a pivotal mark in New York City's history: the 1970 fiscal crisis. The city's economy suffered due to a decline in manufacturing and industrial processes coupled with the flight of the middle-class to suburban neighborhoods (Phillips-Fein, 2013). Due to this economic crisis, New York City was forced to scramble together strategies that would keep the city from going bankrupt; one of these strategies included the the removal of municipal services and budget cuts, known as "planned shrinkage".

6.1 Population Decline in the Bronx, New York

Of all five boroughs that cover New York City, the Bronx borough was the one subjected to the greatest population decline between the 1970 and 1980 census recording. As previously stated, population numbers in the Bronx declined from 1,471,701 in 1970 to 1,168,972 in 1980, amounting to about 300,000 less by the 1980 population census

taking. To rationalize the scale of population decline in the Bronx during this timeframe, consider some of today's state capitals and their population totals, as expressed by the 2010 United States Census. Montgomery, Alabama has 205,764 residents; Jackson, Mississippi has 139,668 residents; Columbia, South Carolina has 129,272 residents; and Richmond, Virginia has 204,214 residents (United States Census Bureau, 2015). With the Bronx losing about 300,000 residents between 1970 and 1980, and to put it in perspective, such a substantial number can be compared to state capitals losing their entire populations over a given period of time.

There are a few key constituents that are likely to have contributed to a 21% decline in population in the Bronx borough. According to estimates provided by the United States Census Bureau, 321,000 housing units that were part of New York City's housing inventory in 1970 were gone by the following decade's Housing and Vacancy survey. To be exact, housing units were likely destroyed and condemned, or burned while still under proprietorship. Of the 321,000 accommodation units, nearly half were demolished while an additional 31% were boarded up or inhospitable due to fires. One-third of the housing unit loss was focused in the Bronx. The Bronx experienced a unit shortfall of over 107,000 in a borough that already had less than one-fifth of New York City's inhabitants (Glazer, 1987).

Attributable to the housing unit loss, which was due in part to the removal of seven fire companies, the Bronx was not only subjected to a considerable decline in population, but an average of 12,000 arson fires per year (Kahane, 2008). With physical structures either condemned or set ablaze in one of the thirty-a-day arson fires between 1975 and 1976, the destruction of housing units in the Bronx played a significant role in

the population decline (Glazer, 1987). Another variable in the population decline of the Bronx likely comes from the public health setbacks tied with violent deaths in the area between 1970 and 1990.

Public health setbacks in the area correlates very well to the housing destruction in the Bronx, the 4th most populous borough of New York City. The New York City Department of Health developed census tracts with an average population of 20,000; these were known as 'health areas'. For each health area, certain categories were taken into consideration, such as: population, index of extreme housing overcrowding, drugrelated deaths, area in square miles, and so on. The six major health districts of the Bronx include Mott Haven, Morrisania, Tremont, Fordham/Riverdale, Pelham Bay, and Westchester, and during the time of Deborah and Rodrick Wallace's study on the correlation between public health and violent deaths, annual health data were acquired from 1968 to 1972, 1979 to 1982, and 1989 to 1991 (Wallace & Wallace, 1998).

Due to the housing destruction of the 1970s and an uneven distribution in population, the health areas in the Bronx were inadvertently reshaped. Starting in 1970, a small area near the Mott Haven and Morrisania health districts had the highest occurrence of violent deaths; the greatest density of violent deaths were also condensed along the aforementioned health districts (Wallace & Wallace, 1998). Over time, health districts in the Bronx would become subjected to almost 30 violent deaths per square mile per year. The housing destruction likely gave rise to the increase in violent deaths between 1970 and 1990, and the patterns of violent deaths in the health districts of the Bronx could have very well contributed to the 21% decline in population.

Aside from a higher occurrence in violent deaths, Tuberculosis (TB) outbreaks are likely to have contributed to a declining population in the Bronx. TB surged in 1979 in New York City, targeting areas where extreme housing overcrowding was likely to occur. Because the Bronx lost one-third of their housing units during the arson fires, overcrowding was expected, and eventually, all of the six major health districts in the Bronx reported cases of Tuberculosis that surpassed the citywide sum total (Wallace & Wallace, 2011; Glazer, 1987).

The Bronx began to see changes in their environemntal health in 1993. At its foundation, recovery and reconstruction in the New York City boroughs, specfically the Bronx, began with stabilizing the government's economy to provide adequate funding to all sectors within the city. Tuberculosis rates began to decline in 1993 following a \$1 billion all-inclusive operation by the Department of Health. Other city, state, and federal programs to help in combating the public health problem included the Ryan White Comprehensive AIDS Resources Emergency Act, or the HIV CARE Act, along with various Center for Disease Control (CDC) prevention programs (Wallace & Wallace, 1998; Wallace & Wallace, 2011).

Pertaining to the decline in homicide rates, New York City began to restore its police force in 1991; four years later, the number of police officers that were employed in New York City doubled since the 1980 count. There are likely many factors that influenced the decline in homicides, but an improved police force likely impacted the falling of homicide rates more than anything else. By 1995, homicide rates fell below the amount of homicides that were recorded in 1970 (Wallace & Wallace, 1998).

6.2 Population Decline in New Orleans, Louisiana

Orleans Parish, or New Orleans City, was the only area in the Greater New Orleans region that saw a decline from the 1990 to 2000 census recording. Between 1990 and 2000, Orleans Parish lost about 7,000 residents, and studies show that the population of New Orleans and the surrounding parishes that make up the metropolitan area have not seen any considerable growth in population since 1970 (Glaeser, 2005). In fact, it was during the 1970s that the Greater New Orleans region saw significant job growth and a booming economy, likely due to certain factors such as employment through the city's port and one of New Orleans' strongest industries: tourism (Glaeser, 2005). It was during this decade, the 1970s, that the metropolitan area increased with nearly 200,000 jobs and a 50% job base increase. As the economy prospered, the metropolitan area's population increased 14% between 1970 and 1980. It was in 1980, however, that the Greater New Orleans region saw a 1% decline in population coupled with a 10% decline in employment (The Data Center, 2014).

Given the trend of populations and how they are influenced by the condition of the economy, it is likely that with the slow-moving economy of the 1980s, the Orleans Parish saw a slight drop in the general population numbers. In spite of this, the decline in population from 1990 to 2000 pales in comparison to the following decade. In 2000, Orleans Parish had a population of 484,674. By 2010, population numbers declined 29%. This decline amounts to 343,829 residents and 140,845 fewer than the 2000 census recording. The diminishing population even five years after Hurricane Katrina is likely due to a variety of influences aside from Hurricane Katrina itself. For starters, the storm did not hit New Orleans directly; instead, it made landfall just east of the city. The

declining population likely came about at the hands of the 17th Street levee breaching, among others, that allowed Lake Pontchartrain to submerge portions of the city.

The levee system that was approved by the United States Army Corps of Engineers was constructed to sustain a functioning city, but over time, the levees had not been preserved. As previously mentioned, the ADCIRC model indicated that any storm surge should have left the city of New Orleans in tact as the levee system was initially constructed to weather Category 3 hurricanes (Comfort, 2006; Gramling, 2005). Without the proper preservation of the levee systems, the infrastructure became highly flawed, thus allowing for the vulnerability of a city in the path of a storm. It can be assumed that, following Hurricane Katrina, the 29% decline in population in Orleans parish was the immediate result of human error.

Flaws in physical infrastructure left approximately 80% of New Orleans flooded. Some areas, notably the French Quarter, the Garden District, and the Gentilly Ridge were left relatively intact in the wake of the storm, the lower-lying neighborhoods and communities were flooded. Some neighborhoods received minimal flooding while others were inundated in over 10 feet, or 3 meters, of water. The deaths of Louisiana residents totaled nearly 1,000; causes were either drowning, trauma, and heart conditions with almost half of those who died being the elderly population who did not have the means to evacuate (Groen & Polivka, 2010).

In the year following Hurricane Katrina, New Orleans lost over half of the city's population with a decline of over 250,000 residents. It is likely that another key factor in the New Orleans population decline was the displacement and relocation of residents following the storm. Katrina's landfall and the ensuing breaching of the levee system just

about forced much of the population to relocate to areas such as Texas and other parishes in Louisiana. In the New Orleans metropolitan area, 53% of the pre-disaster population returned to the area, but under one-third of that number returned to the housing they dwelled in prior to Katrina (Sastry & Gregory, 2014).

Recovery in New Orleans following Hurricane Katrina was not a straightforward task, though deliberations on rebuilding the city began immediately after the storm. One of the biggest debates on rebuilding New Orleans was centered around race and class, especially in the Lower Ninth Ward. When Mayor Ray Nagin approved of a recovery plan that put the accountability of reconstruction on the residents of the damaged neighborhoods, residents and evacuees of the Lower Ninth Ward were not satisfied, and for good reason. The premise of the Lower Ninth Ward's argument was that more fortunate neighborhoods and communities were better equipped with the means to restore their neighborhoods than areas such as the Lower Ninth Ward and Gentilly. Many wondered if the crux of this recovery plan was an "excuse to clean out this poor, overwhelmingly African American community so that the rich white developers could start anew" (Landphair, 2007).

In New Orleans, reconstruction will vary from neighborhood to neighborhood, as expressed by those in poorer neighborhoods such as the Lower Ninth Ward. With populations less likely to return to the disadvantaged neighborhoods, making a concerted effort to rebuild homes in the weaker communities can be challenging without residents and without a suitable tax base (Sastry & Gregory, 2014). A point to consider in rebuilding New Orleans is upholding the infrastructure of the city by maintaining roads and bridges, electrical power, and essentials that were once inoperable such as water and

sewers. All of these components within the city are essential for growth in Orleans parish and surrounding parishes as well.

In addition to upholding the infrastructure, levee restoration is key when preventing vulnerability with potential storms. Though it is unlikely to build a levee system that can withstand the most catastrophic, shattering forces, solidifying the levee system to some degree will be highly beneficial in the future. In fact, considering that the failure of the levee systems is what inundated portions of New Orleans, strengthening the systems will likely prevent a myriad of difficulties moving forward. Other possibilities for a more sound New Orleans in the wake of impending storms may include: evacuation plans that consider all socioeconomic groups, plans to reconstruct low-income neighborhoods with improvement in housing, and shelters that are not deemed a "last resort", but are more hospitable to the residents that are unable to evacuate the city (Olshansky, 2006).

6.3 Using Race as a Factor for Urban Decline in New York City and New Orleans

Race is a construct that is incredibly complex and has become reliant upon more than just a biological process. While it is a social mechanism that categorizes a group of individuals based on similar physical characteristics, the idea of one's race has morphed into a concept that takes into account other factors, such as social and economic rankings. With that in mind, race is an important theme when discussing urban and population decline in New York City and the New Orleans metropolitan area as it is imperative when trying to build an understanding as to who the populations were that were subjected to inner city decay and if urban decline was exclusive to a particular race given any social or economic constituents. While it is fascinating to visualize the demographic shifts during

New York City's fiscal crisis and following the effects of Hurricane Katrina in the New Orleans metropolitan area, this is not to say that race was the sole factor for the way in which urban decline manifested in the study areas.

The variation from one race to the next was gradual for both New York City and the New Orleans metropolitan area and did not show a shift that was incredibly significant over time. New York City's Bronx borough, however, was somewhat of an outlier. In 1960 and 1970, the fourth most populous borough of New York City saw a demographic trend that was predominately white, but by the following decade, the Bronx's white population shifted to the minority when compared to the sum of both the African American population and those that comprised of other races. Also, the Orleans parish in the New Orleans metropolitan area was the only parish of the metropolitan area that was predominately African American between 1990 and 2010. It is interesting to note that both the Bronx borough and the Orleans parish, which are the two main focal points in this research, saw a demographic trend that favored what may be considered a minority race. Aside from the aforementioned study areas, all remaining boroughs and parishes saw a trend that was far more gradual. With there being a slow variation from one race to the other, using demographics as a factor for how urban decline is etched within the urban landscape is significant, but essentially, this theme of race was utilized to, as previously stated, gain an understanding for who the populations were.

Chapter 7: Conclusion

In New York City, difficulties within the economy were the foundation of their period of urban decline. It was in the mid-1970s when New York City's economy was inadvertently reshaped as much of the middle-class shifted to suburban communities,

leaving the remaining tax base to become weakened over time; the city as a whole was left with an outstanding budget. Without the necessary means to progress, the city government was forced to develop strategies that would reduce their spending and balance the growing debt. In order to do so, municipal services were reduced in all five boroughs of New York City, and what resulted was nothing short of a flawed attempt at promoting efficiency within the city by way of "planned shrinkage". What started as a sequence of fiscal setbacks and efforts to neutralize those setbacks ultimitely resulted in inner city decay in some of New York City's most impoverished neighborhoods coupled with a decade-long public health obstacle, mostly in the Bronx borough.

In New Orleans, Louisiana, socioeconomic drawbacks moved to the forefront following a regional disaster by the name of Hurricane Katrina. This natural disaster put much of New Orleans to a complete halt as the city became inhospitable in an instant. Interestingly, it was not the storm itself that inflicted damage to the city, but the flaws in the levee systems that were designed to protect the city of New Orleans from hurricane forces (Comfort, 2006). Without the proper preservation of the levee systems constructed in this urban city, much of New Orleans was left with inoperable services such as transportation, sanitary sewer systems, and water. About 80% of the city was submerged to some degree in storm surge that was polluted with sewage from wastewater systems, septic tanks, gasoline leaks, and industrial chemicals. The damage to this city was without delay, but the overall impairments of this urban city are still woven beneath the attempts to recovery, even eleven years later.

Whether the process of urban decline is drawn-out over a long period of time like the New York City fiscal crisis or prompt like Hurricane Katrina, the "greatest urban and

regional disaster in U.S. history" (Olshansky, 2006), the elements that shape "shrinking cities" are liable to leave a lasting mark on any complex urban system. Urban environments that were constructed to house a chain of booming industrial mechanisms have, in some cases, hollowed into the previously stated "doughnut" of a city; the inner cities are hollow and void of progression in the tax base while the outer boundaries are transforming into affluent suburban neighborhoods. There is a variety of constituents that result in urban shrinkage, but it would appear that socioeconomic elements have proven to be the most crucial element in the wake of a city's decline. In general, when an urban city is deprived of a strong tax base to establish growth within the city, this engenders a trend of urban shrinkage that ultimately leads to the overall abandonment of inner cities and the negligence of urban infrastructure as the population considers flight and migration into the aforementioned affluent suburban neighborhoods. Without a suitable tax base and a substantial population, a city is not equipped with the bare essentials to grow.

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Figures



Figure 1 – Population change from 1960 to 1990 in New York City. Source: United States Census Bureau.



Figure 2 – Percent change in population from 1960 to 1990 in New York City. Source: United States Census Bureau.



Figure 3 – Population change from 1990 to 2010 in the New Orleans-Metairie-Kenner Metropolitan Statistical Area. Source: United States Census Bureau.



Figure 4 – Percent change in population from 1990 to 2010 in the New Orleans-Metairie-Kenner Metropolitan Statistical Area. Source: United States Census Bureau.



Figure 5 – Race in New York City in 1960. This figure denotes the percentage of each race category that was established from the total population in each borough. Source: United States Census Bureau.



Figure 6 – Race in New York City in 1970. This figure denotes the percentage of each race category that was established from the total population in each borough. Source: United States Census Bureau.



Figure 7 – Race in New York City in 1980. This figure denotes the percentage of each race category that was established from the total population in each borough. Source: United States Census Bureau.



Figure 8 – Race in New York City in 1990. This figure denotes the percentage of each race category that was established from the total population in each borough. Source: United States Census Bureau.







Figure 10 – Race in the New Orleans-Metairie-Kenner Metropolitan Statistical Area in 2000. This figure denotes the percentage of each race category that was established from the total population in each parish. Source: United States Census Bureau.



Figure 11 – Race in the New Orleans-Metairie-Kenner Metropolitan Statistical Area in 2010. This figure denotes the percentage of each race category that was established from the total population in each parish. Source: United States Census Bureau.

Income Categories	Bronx	Brooklyn	Queens	Manhattan	Staten Island
1960 Families	\$46,663	\$46,551	\$57,436	\$42,725	\$54,715
1960 Household	\$40,820	\$40,868	\$51,569	\$31,399	\$49,400
1970 Families	\$50,729	\$54,094	\$70,556	\$54,851	\$72,626
1970 Household	\$41,607	\$44,245	\$59,834	\$41,021	\$65,237
1980 Families	\$31,552	\$34,269	\$48,959	\$39,977	\$60,966
1980 Household	\$37,846	\$42,162	\$58,959	\$46,940	\$68,499
1990 Families	\$46,185	\$54,440	\$73,279	\$66,762	\$91,837
1990 Household	\$39,777	\$46,557	\$61,968	\$58,480	\$79,506

Table 2 – Median income for families and households in New York City, 1960-1990. All income values were adjusted to 2016. Source: United States Census Bureau.

Income Categories	Bronx	Brooklyn	Queens	Manhattan	Staten Island
1960-1970 Families	\$4,066	\$7,543	\$13,120	\$12,126	\$17,911
1960-1970 Household	\$787	\$3,377	\$8,264	\$9,621	\$15,837
1970-1980 Families	-\$12,883	-\$11,932	-\$11,597	-\$7,911	-\$4,127
1970-1980 Household	-\$10,054	-\$9,975	-\$10,875	-\$1,044	-\$4,272
1980-1990 Families	\$8,339	\$12,278	\$14,320	\$19,822	\$23,338
1980-1990 Household	\$8,225	\$12,287	\$13,009	\$18,504	\$18,540

Table 3 – Income Change in New York City, 1960-1990 with all values being adjusted to 2016. This table depicts both an increase and decrease in income on a decadal scale. Source: United States Census Bureau.

						St. John	
Income				St.	St.	the	St.
Categories	Jefferson	Orleans	Plaquemines	Bernard	Charles	Baptist	Tammany
1990 Families	\$58,814	\$40,209	\$48,077	\$52,992	\$64,087	\$58,384	\$63,503
1990 Household	\$50,584	\$33,493	\$43,642	\$46,190	\$57,601	\$52,631	\$55,569
2000 Families	\$63,059	\$44,491	\$58,624	\$58,864	\$69,564	\$60,433	\$76,146
2000 Household	\$52,880	\$37,330	\$52,519	\$49,446	\$62,103	\$54,284	\$65,878
2010 Families	\$64,111	\$50,163	\$73,325	\$49,226	\$74,039	\$78,473	\$58,460
2010 Household	\$52,342	\$40,709	\$59,464	\$42,590	\$65,063	\$51,689	\$66,152

Table 4 – Median incomes for families and households in the New Orleans-Metairie-Kenner Metropolitan Statistical Area, 1990-2010. All values were adjusted to2016. Source: United States Census Bureau.

						St. John	
Income				St.	St.	the	St.
Categories	Jefferson	Orleans	Plaquemines	Bernard	Charles	Baptist	Tammany
1990-2000 Fam.	\$4,245	\$4,283	\$10,546	\$5,873	\$5,477	\$2,049	\$12,643
1990-2000 House.	\$2,295	\$3,837	\$8,877	\$3,255	\$4,502	\$1,653	\$10,309
2000-2010 Fam.	\$1,051	\$5,672	\$14,702	-\$9,639	\$4,475	\$18,040	-\$17,686
2000-2010 House.	-\$538	\$3,379	\$6,945	-\$6,855	\$2,960	-\$2,596	\$274

Table 5 – Income Change in the New Orleans-Metairie-Kenner Metropolitan Statistical Area, 1990-2010 with all values being adjusted to 2016. This table depicts both an increase and decrease in income on a decadal scale. Source: United States Census Bureau.