THE FUTURE OF RED HOOK, BROOKLYN:
LEARNING FROM EVOLVING NEW YORK CITY NEIGHBORHOODS

A Thesis
presented to
the Faculty of California Polytechnic State University,
San Luis Obispo

In Partial Fulfillment
of the Requirements for the Degree
Master of City and Regional Planning

by
Robin Lynne Wachen

June 2012

© 2012

Robin Lynne Wachen

ALL RIGHTS RESERVED

COMMITTEE MEMBERSHIP

TITLE: The Future of Red Hook, Brooklyn: Learning from Evolving New York City
Neighborhoods

AUTHOR: Robin Lynne Wachen

DATE SUBMITTED: June 1, 2012

COMMITTEE CHAIR:

Dr. Loulie Brown, Lecturer, City and Regional Planning Department
California Polytechnic State University, San Luis Obispo

COMMITTEE MEMBER:

Dr. Vicente del Rio, Professor, City and Regional Planning Department
California Polytechnic State University, San Luis Obispo

COMMITTEE MEMBER:

Dr. Michael Latner, Professor, Political Science Department
California Polytechnic State University, San Luis Obispo

ABSTRACT

The Future of Red Hook, Brooklyn:
Learning from Evolving New York City Neighborhoods

Robin Lynne Wachen

This master's thesis identifies the potential impacts of planning policies and key stakeholder groups on Red Hook, Brooklyn given current development trends and the neighborhood changes such as gentrification. The premise of this thesis is that through understanding the catalysts and impacts of social and economic change in similar neighborhoods, together with the analysis of current zoning, planning policies, and neighborhood culture and demographics in Red Hook, it is possible to identify how future changes may generate positive outcomes for the neighborhood. A review of planning literature provides a perspective on the disinvestment to reinvestment process seen in many New York City neighborhoods during the second half of the 20th century. The case study research method relying primarily on qualitative data is applied to gain a contextual analysis of the complex urban planning issues in Red Hook. A study of the planning and development impacts on three waterfront neighborhoods in New York City – Battery Park City, the Lower East Side, and Williamsburg – reveals the catalysts of neighborhood change in those neighborhoods and suggests the potential socio-economic impacts of future redevelopment in Red Hook.

Keywords: Battery Park City; gentrification; Lower East Side; Manhattan; neighborhood change; New York City; Red Hook; redevelopment; revitalization; Urban Renewal; Williamsburg.

TABLE OF CONTENTS

LIST OF TABLES	vii
LIST OF FIGURES	viii
I. INTRODUCTION AND BACKGROUND	1
I.1. New York City Planning Commission, Statutes and Policies	3
I.2. Population Change in New York City	9
II. NEIGHBORHOOD DISINVESTMENT TO REINVESTMENT	10
II.1. Deindustrialization, White Flight and Urban Neighborhood Decline.....	10
II.2. Gentrification	13
III. RESEARCH PROBLEM AND METHODOLOGY	19
III.1. Research Problem	19
III.2. Research Methods.....	20
III.2.1 Logic of Research Design.....	21
III.2.2 Data Collection Techniques.....	22
IV. THREE CASES OF NEIGHBORHOOD REDEVELOPMENT	26
IV.1. Battery Park City	28
IV.1.1 History of Reinvestment.....	30
IV.1.2 Catalysts of Change	38
IV.1.3 Economic and Social Impacts.....	40
IV.2. The Lower East Side.....	44
IV.2.1 History of Reinvestment.....	49
IV.2.1 Catalysts of Change	59

IV.2.2	Economic and Social Impacts.....	61
IV.3.	Williamsburg	67
IV.3.1	History of Reinvestment.....	71
IV.3.2	Catalysts of Change	77
IV.3.3	Economic and Social Impacts.....	79
V.	THE CASE OF RED HOOK	84
V.1.	Catalysts of Change	88
V.1.1	Residents	90
V.1.2	City Agencies.....	92
V.1.3	Community Groups.....	95
V.1.4	Real Estate Developers	96
V.2.	History of Development in Red Hook	98
V.3.	Economic and Social Impacts.....	106
VI.	CONCLUSION.....	115
VI.1.	Comparative Analysis and Findings.....	115
VI.2.	Limitations of Research.....	121
VI.3.	Future Research	123
	REFERENCES	126
	APPENDIX.....	134

LIST OF TABLES

Table 1.	New York City Population (1940-2010).....	9
Table 2.	Comparison of Battery Park City and Manhattan Census Data (2010)	43
Table 3.	Battery Park City Economic and Demographic Data (1990-2010)	44
Table 4.	Comparison of Median Home Values in Manhattan (1990-2010).....	63
Table 5.	Lower East Side (excluding public housing) Economic and Demographic Data (1980-2010)	65
Table 6.	Western Williamsburg Economic and Demographic Data (1990-2010)	82
Table 7.	Red Hook (excluding public housing) Economic and Demographic Data (1990-2010).....	97

LIST OF FIGURES

Figure 1. New York City Zoning Amendments since 2002	8
Figure 2. Battery Park City, the Lower East Side, and Western Williamsburg Census Tracts (2010)	23
Figure 3. Red Hook Census Tracts (1990-2010)	24
Figure 4. Location and Boundaries of Case Study Neighborhoods	27
Figure 5. Special Battery Park City District Plan	29
Figure 6. Location and Proposed Plan of Battery Park City	32
Figure 7. Development of Battery Park City	36
Figure 8. Examples of Battery Park City Architecture	37
Figure 9. Battery Park City Population by Race (1990-2010)	38
Figure 10. Lower East Side Location and Boundaries	45
Figure 11. Lower East Side Zoning and Land Use	46
Figure 12. Lower East Side Population by Race (1990-2010)	48
Figure 13. Lower East Side Tenement Houses	50
Figure 14. Lower East Side Housing Arrears (1975-1996)	51
Figure 15. Disinvestment and Reinvestment in the Lower East Side (1988-1996)	57
Figure 16. Lower East Side Rezoning (2008)	58
Figure 17. Neighborhood Poverty over Time (1980-2010)	66
Figure 18. Lower East Side Population Change over Time (1970-2010)	67
Figure 19. Location of Area of Study in Williamsburg	67
Figure 20. Existing Zoning Prior to Greenpoint-Williamsburg 2005 Rezoning (2003) ...	69
Figure 21. Williamsburg Land Use (2004)	70

Figure 22. Williamsburg Waterfront Development.....	74
Figure 23. Greenpoint-Williamsburg Rezoning (2005)	76
Figure 24. Western Williamsburg Population by Race (1990-2010)	78
Figure 25. Inclusionary Housing Designated Areas in New York City	83
Figure 26. Red Hook Location in New York City	84
Figure 27. Red Hook Zoning and Land Use.....	85
Figure 28. Examples of Structures and Culture in Red Hook	86
Figure 29. Red Hook Population by Race (1990-2010)	86
Figure 30. Red Hook Population by Race and Housing Type (1990-2010).....	87
Figure 31. Catalysts of Change affecting Neighborhood Redevelopment	89
Figure 32. New York City Maritime Trade and Industrial Areas	94
Figure 33. Red Hook Past and Present Land Use.....	98
Figure 34. Red Hook Zoning Map with Mixed Use Zone MX-5 (2011)	105
Figure 35. Recent Development in Red Hook.....	105
Figure 36. Increase of Neighborhood Housing Units over Time (1990-2010)	108
Figure 37. Comparison of Neighborhood Median Home Values (1990 and 2010)	109
Figure 38. Neighborhood Renter Occupancy over Time (1990-2010)	110
Figure 39. White Non-Hispanic Neighborhood Population over Time (1990-2010).....	111
Figure 40. Neighborhood Residents Living in Poverty over Time (1990-2010)	112
Figure 41. Neighborhood Non-Family Households over Time (1990-2010).....	113

I. INTRODUCTION AND BACKGROUND

In the mid-2000s, one could hardly talk about neighborhood redevelopment in New York City without hearing about Red Hook, Brooklyn, a neighborhood seemingly on the verge of big changes. New shops and restaurants began sprouting up in and around the neighborhood. Artists and craftsmen began relocating there to take advantage of cheaper rents and ample studio space. But unlike some other neighborhoods that experienced redevelopment in recent years, the process of change in Red Hook has been gradual, in part due to the larger downturn in the economy, providing scholars and planners with an opportunity to speculate and argue about what the future holds for this part of southwestern Brooklyn. Central to considerations of Red Hook's future are questions about how the neighborhood will evolve as a result of redevelopment.

- What are the positive and negative social and economic impacts of redevelopment on this neighborhood?
- Who will reside in the neighborhood after redevelopment?
- Will Red Hook maintain its historical character or become indistinguishable from other areas of Brooklyn?

Since the 1960s, several New York City neighborhoods have experienced a type of socio-economic change referred to as "gentrification" where traditionally lower-class rundown immigrant neighborhoods have changed through property investment by upper class, well-educated white populations. One category of neighborhoods affected by the phenomenon of gentrification is the waterfront districts that once supported the city's manufacturing industry, which has experienced a decline in New York City since the 1950s. Few waterfront neighborhoods in New York City still maintain active maritime

and manufacturing uses with surrounding immigrant and blue-collar residences. One neighborhood, though, that has not completely lost this history and tradition of maritime industry is Red Hook.

Red Hook contains manufacturing warehouses along the waterfront, the largest public housing complex in Brooklyn, a container port and active ship terminals. Lower rents attract artists and industrialists, features that have been lost in similar New York City neighborhoods. However, Red Hook's potential for economic growth may soon make these features obsolete. This paper considers the possible impacts of redevelopment in Red Hook based on case studies of neighborhoods with similar characteristics. For urban planners and stakeholders of neighborhood change, it is important to understand effects of recent cases of redevelopment in order to maximize the likelihood of generating positive outcomes for the neighborhood.

This thesis is not intended to answer questions about what attracts individuals to reside in a neighborhood like Red Hook, but instead seeks to provide a general framework of possible impacts of redevelopment to inform decisions about change that will be most positive for the neighborhood as a whole. This is accomplished by first examining three gentrified neighborhoods: Battery Park City, the Lower East Side, and Williamsburg. A case study methodology is used to understand the history of planning processes, policies, and demographic change in these three waterfront neighborhoods, each of which has experienced gentrification from redevelopment since the 1980s. This examination of similar neighborhoods will inform the discussion of the potential impacts of planning and redevelopment on Red Hook. To compare these neighborhoods to Red

Hook, data was gathered through newspapers, journals, reports, books, city publications, U.S. census data, and interviews with scholars of New York's city planning.

I.1. New York City Planning Commission, Statutes and Policies

In 1934, Mayor Fiorello La Guardia formed the Mayor's Committee of City Planning (the Commission), which initially focused on updating the city's 1916 zoning ordinance by protecting districts with one-family housing and reclassifying unrestricted areas for retail, business, and manufacturing. By 1941, the Commission drew up a city master plan and announced its intentions for slum clearance, low-income housing development, parks, transportation, and public education. However, the city never adopted the plan, in part because Parks Commissioner Robert Moses had been appointed to the Commission and was not interested in moving forward with a master plan. During his tenure, Moses directed the Commission to focus on a revised zoning ordinance and specific projects rather than a comprehensive plan for the city. As the city's construction coordinator and the head of the Mayor's Committee on Slum Clearance, Moses directed the city's planning efforts in the 1940s and 1950s toward the specific projects that promoted slum clearance, and urban renewal public works (Jackson, 2010).

By the late 1940s, New York City's 1916 Zoning Ordinance included multiple zoning maps for each district and over one thousand amendments, making the ordinance confusing and unworkable. Rather than adding to an already convoluted regulation, the Commission decided to focus its efforts on creating a new ordinance. In 1961, the Commission adopted the *Plan for Rezoning the City of New York*, which was based on a single map with 18 categories of land use, 38 districts, and regulation of building density with a floor-area ratio. The new zoning provided for a population of 11 million with half

of the city's area designated for infrastructure, almost one-third reserved for residential development, and the remaining one-fifth evenly split between commercial and manufacturing (Jackson, 2010).

A massive rebuilding program stimulated by federal legislation was another significant planning effort implemented by the city after World War II to address concerns of Manhattan's decaying urban center. The United States Housing Acts of 1937, 1949, and 1954 provided the city with financing to eliminate slums and improve low-income housing and neighborhoods (Jackson, 2010).¹ From 1949 to 1974, the federal government's Urban Renewal programs awarded cities \$13.5 billion with approximately two-thirds of the funding spent on rebuilding downtown business districts and commercial centers (Frug, 1999).² The Commission chose to use the federal Urban Renewal program to preserve New York City's prominence in commerce and culture by approving major new construction projects and using slum clearance to build facilities such as Lincoln Center and the Brooklyn Civic Center (Jackson, 2010).

Federal aid ignited the city's efforts in building public housing for low-income residents. Before 1940, New York City had built only four public housing projects, yielding a total of 4,875 low-income housing units: 123 apartments in the Lower East Side, 577 units in Harlem, 2,545 units in Red Hook, and 1,630 apartments in

¹ The Housing Act of 1937 improved living conditions of low-income residents through subsidies, which were to be paid from the U.S. government to local public housing agencies. The Housing Act of 1949 is credited for kick-starting the Urban Renewal program by providing federal financing to cities for slum clearance programs. The most important changes to Urban Renewal were made by the Housing Act of 1954, which amended the 1949 Act to provide funding for the rehabilitation and conservation of deteriorating neighborhoods. The change in Urban Renewal philosophy placed more emphasis on prevention and rehabilitation to prevent the further spread of urban blight (Johnstone, 1958).

² Federal Urban Renewal is a grant-in-aid program for local public agencies that have been authorized through state law to participate in the program (Johnstone, 1958).

Williamsburg (Abu-Lughod, 1999). During the 1940s, nearly 25,000 units were added to the city's public housing supply, and through the 1950s more than 75,000 subsidized apartments in some 70 new housing projects were added throughout the city. In the 1960s, another 42,500 units were added to the city's supply, scattered among 78 housing projects (Abu-Lughod, 1999). By 1973, the city's public housing building spree ended with the disappearance of federal funds, but the result was the largest public housing authority in North America, which today houses more than 400,000 New Yorkers and provides subsidized rental assistance for more the 232,000 residents (New York City, 2012).³

The Federal-Aid Highway Act of 1956 was another federal funding source that provided a boost to the city and gave planner Robert Moses the opportunity to build roads in blighted New York City neighborhoods (Gratz, 2010). Redevelopment agencies also became involved in city revitalization efforts in the 1950s. Under David Rockefeller's leadership, the Downtown Lower Manhattan Association sponsored a plan for the redevelopment of 564 acres in lower Manhattan. The plan addressed transportation and rezoning options to increase investment interests in deteriorating neighborhoods (Jackson, 2010).

In the 1960s, the Commission accepted new initiatives and formed the Urban Design Group to address urban problems, expand the planning department into the five boroughs, and oversee the 59 community planning districts. In 1969, the Commission published a six-volume master plan, *Plan for New York City*, which once again was never

³ In 1973, President Nixon declared moratorium on housing and community development assistance after the demolition of Pruitt-Igoe public housing buildings in St. Louis in 1972 (U.S. Department of Housing and Urban Development, 2012).

adopted (Jackson, 2010). Despite the city's lack of adopting and implementing a comprehensive plan, by the 1970s city officials believed that cities suffered from an image crisis and reached out to business executives to forge a new strategy for growth. The city's new planning strategy was to target people with money, including investors and tourists, by rebuilding the city center and developing downtown shopping centers that would look as attractive as the suburbs (Zukin, 2010).

In the decades following the 1960s, New York City focused on business and economic growth by strengthening its financial and producers' services sector to become the largest active capital market in the world (Abu-Lughod, 1999). In 1978, for example, Mayor Koch declared "The main job of the government is to create a climate in which private business can expand in the city to provide jobs and profit" (apud Frieden & Sagalyn, 1989, p. 296). From 1974 to 1988, New York spent the money it received from major federal programs, such as Community Development Block Grants and Urban Development Action Grants, on major commercial projects (Frug, 1999). In the 1980s, with an emphasis on fostering growth and shrinking welfare assistance, two large publically financed redevelopment projects commenced in New York City with no public involvement: the creation of Battery Park City in lower Manhattan, and the revitalization of Times Square in Midtown (Fainstein, 2010).

During this period of building and revitalization in the 1970s and 1980s, the 1961 Zoning Ordinance continued to be the city's primary planning tool. At various times, the Ordinance was amended to promote specific types of development and preservation. Planning Commission charter revisions made in 1975 and 1989 resulted in the most significant changes to the city's zoning ordinance; they guaranteed the public more

involvement in project reviews and improved the city's uniform land use review process by creating a system where community boards held public hearings and reviewed planning issues before they were considered by the Commission and the City Council (Jackson, 2010). Although the Commission continued to oversee the Zoning Ordinance and the uniform land use review process, the Commission no longer mandated development of a single master plan, and instead it required adoption of local plans (known as 197-a plans) submitted by community boards or other parties to City Council, and to produce the waterfront revitalization plan in compliance with the Federal Coastal Zone Management Act of 1972 (Jackson, 2010).

New York City's federal-aid programs and planning priorities were not sufficient to reverse the trends of disinvestment and white flight. City policy makers recognized that neighborhood revitalization required significant activity independent of the public sector (Zielenbach, 2000). To attract private investors, rezoning became the city government's preferred tool for redevelopment. Zoning amendments allowed for real estate development that investors found most profitable, while protecting the urban conditions activist Jane Jacobs fought for in the 1960s including: rezoning for taller buildings on the city's wider avenues, and three-, four- and five-story apartment buildings on the narrower side streets (Zukin, 2010). Examples of neighborhoods in lower Manhattan and parts of Brooklyn that experienced rezoning since 2002 (when Michael Bloomberg became mayor) are shown in Figure 1.

With the help of private investors and developers at the end of the 20th century, Manhattan strengthened its position as a global center of finance. Sociologist Saskia

Figure 1. *New York City Zoning Amendments since 2002*
(City of New York, 2012)

Sassen found that “finance and specialized service industries have restructured the urban social and economic order” in global cities, including New York, and now function “as key locations for finance and for specialized service firms, which have replaced manufacturing as the leading economic sectors” (as cited in Strom & Mollenkopf, 2007, p. 30). Since the 1960s, New York City strengthened its financial and producers’ services sector to become the world’s largest active capital market (trading half of all global securities) and headquarters for the majority of international law and accounting firms. (Abu-Lughod, 1999). The city had succeeded in generating reinvestment in New York City neighborhoods by changing the urban image and attracting private companies, investors, developers, residents, and tourists. Under the direction of Mayor Michael Bloomberg, a new strategic plan was issued in 2007, called PlaNYC, which aimed to reduce the city’s greenhouse gas emissions by 30 percent by 2030 while accommodating a million new residents (Jackson, 2010).

I.2. Population Change in New York City

The U.S. Census data provides a look at residential population change that was occurring in New York City during the period of Urban Renewal programs, urban disinvestment, and then gentrification (Table 1). Data reveals a decline of 1.4 percent in city population between 1950 and 1960, which was New York City's first recorded population drop (U.S. Census Bureau, 2010). It was not until after 1970 that the city experienced a greater population decline of 10.4 percent was faced with near bankruptcy by the mid-1970s (Zukin, 2010). Since 1980, the city's population began to grow again with gentrification, and the decade from 1990 to 2000 exhibited a 9.4 percent population increase, which finally got the city's total population above its previous population peak of the 1970s.

Table 1. *New York City Population (1940-2010)*

<i>Year</i>	<i>Population</i>	<i>Percent Change from prior Decade</i>
1940	7,457,995	
1950	7,891,957	5.8
1960 ⁴	7,781,984	-1.4
1970	7,894,862	1.5
1980	7,071,639	-10.4
1990	7,322,564	3.5
2000	8,008,278	9.4
2010	8,175,133	2.1

(U.S. Census Bureau, 2010)

⁴ Between 1950 and 1960 was the first decade of population decline every recorded in New York City history (Jackson, 2010).

II. NEIGHBORHOOD DISINVESTMENT TO REINVESTMENT

This chapter provides a discussion on the progression of urban neighborhoods from disinvestment to reinvestment through a review of literature in urban planning and policy. The chapter begins with a review of scholars' perspectives on two socio-economic processes, deindustrialization and white flight, that led to the disinvestment in the city's waterfront manufacturing neighborhoods making them ripe for reinvestment decades later. Finally, the chapter notes some of the debates by sociologists and urban planning scholars on the definition and outcomes of a process sociologist Ruth Glass called "gentrification," which is an important phenomenon to understand the impacts of neighborhood redevelopment (Brown-Saracino, 2010).

II.1. Deindustrialization, White Flight and Urban Neighborhood Decline

When the Second World War ended in 1945, New York City was thriving and considered the greatest manufacturing city in North America with output exceeding Detroit and Pittsburgh combined (Siegel, 1997).⁵ For the next three decades the city experienced an exodus of manufacturing jobs and residents through the processes of deindustrialization. As a result of increased public spending (to stop the process of urban abandonment) and the city's lowered tax base, New York City was faced with bankruptcy by the mid-1970s and many of its manufacturing neighborhoods suffered from disinvestment, which led to high levels of crime and high vacancy rates (Zukin, 2010).

⁵ Since the American Industrial Revolution, New York City has maintained a vibrant industrial sector with manufacturing companies supporting printing services, the garment industry, the jewelry district, food products, fabricated metals, electrical equipment, industrial machinery, construction and furnishings, as well as other industries (New York Industrial Retention Network).

Deindustrialization is the reduction of an area's industrial and manufacturing capacity, and white flight is the departure of white residents (of European ancestry) from racially mixed urban neighborhoods within the city's central areas (Merriam-Webster Inc., 2012). Deindustrialization and white flight, which contributed to a loss of middle- and upper-income residents and jobs in cities, are partially responsible for the withdrawal of investment in city neighborhoods.⁶ This period of private disinvestment decreased the city's tax base and led to increasing public spending on Urban Renewal projects and social services.

With the Servicemen's Readjustment Act of 1944 (known as the G.I. Bill) and U.S. government-backed mortgage loans, families that could afford property outside of the city moved to larger homes in suburbs with better public school systems in New Jersey, Connecticut, and Long Island (Zukin, 2010). Many corporate headquarters also abandoned the city for cheaper and larger suburban locations along the expanded highway system. In 1956, 140 headquarters for the Fortune 500 companies were located in New York City, and by 1975 this number had dropped to 98 (Siegel, 1997).

February 1967 was particularly significant to New York City's loss of industry, as the American Can Company, Pepsi-Cola, Olin Mathieson Chemical Corporation, and Bohn Office Machines announced they were moving their facilities out of the city. In one year, between 1969 and 1970, the city lost 120,000 manufacturing jobs (Siegel, 1997). By 1990, the New York City region had lost an additional 680,000 manufacturing jobs, which was a 44 percent drop over two decades (Abu-Lughod, 1999).

⁶ The review of literature of city politics and planning included sources from Siegel (1997), Abu-Lughod (1999), Zielenbach (2000), and Zukin (2010).

Political activist and economic researcher, Zielenbach (2000) argues that because private employers and wealthy city residents relocated to the suburbs, metropolitan areas in the United States were left with a higher proportion of poor residents with social and economic needs, which put added financial demands on city budgets.⁷ With private disinvestment in the city neighborhoods, cities such as New York responded by adjusting its policies to accept more responsibility as a primary employer and welfare provider; thereby increasing New York City's budget from \$8.6 billion in 1961 to \$21.1 billion in 1975, when the city neared bankruptcy.⁸ In a decade, the city's welfare assistance grew from a ratio of ten people employed to one receiving welfare assistance in 1960 to a ratio approaching five to one by 1970 (Siegel, 1997). Zielenbach (2000) suggests that the "redistributive" policies of the early 1970s attracted the poor by providing programs such as affordable housing, remedial education, job training, and health care, and put the city at risk of severe financial distress and possible bankruptcy.

According to Clay (1979), "The revival of middle-class interest in the city as a place to live has been attributed to a major reversal in the attitudes and values of young people" (p. 4). Credit is given to the term *revitalization* as "the back-to-the-city movement" and "means of stopping the suburban flight of white middle-class households" (Clay, 1979, p. 4). Clay (1979) examines the central city and notes the "interesting disparity between the increasing levels of investment in many downtown

⁷ Sean Zielenbach's *The Art of Revitalization: Improving Conditions in Distressed Inner-City Neighborhoods* is a study of low-income neighborhoods in Chicago; however, his book notes findings on neighborhood revitalization that pertain to large American cities such as New York.

⁸ Welfare provides temporary help to residents with social service and economic needs to assist them in reaching self-sufficiency. In August 1966, Mayor John Lindsay created New York's Human Resources Administration to consolidate administrations including the Department of Welfare, and better coordinate the city's human resources programs.

areas and the continued decline in investment in residential neighborhoods” (p. 2), which complicates the distribution of households and investment in metropolitan areas through the 1970s.

In her book *Naked City*, sociologist Sharon Zukin (2010), described how the urban crisis of the 1960s and 1970s created a “perception gap” between New York City’s image of glamour and sophistication and the reality in many of the city’s neighborhoods, which were being abandoned by landlords, residents, and businesses. According to Clay (1979), this abandonment or disinvestment was followed by a period of reinvestment from old Urban Renewal plans. Zukin suggests that the combination of the city’s financial crisis in the mid-1970s and the public’s inaccurate perception of the city’s prosperity led Mayors Edward Koch and Rudolph Guiliani to reform public policies in the 1980s and 1990s. The policies enacted during the tenures of Koch and Guiliani made it difficult for residents to receive welfare assistance and instead focused resources and planning initiatives on business and economic growth to stimulate neighborhood reinvestment (Siegel, 1997).

II.2. Gentrification

Clay’s research on neighborhood renewal in the 1970s identifies two fundamentally different types of revitalization activity: *gentrification* and *upgrading*. “Gentrification is derived from a British term used to denote the resettlement of professional and upper middle class home owners in city neighborhoods” (Clay, 1979, p. 6). According to Clay, this type of neighborhood revitalization emphasizes population change opposed to physical change, where the major feature of upgrading is the physical improvement by existing residents with no significant change in the socio-economic

status or characteristics of the population. In this thesis the socio-economic impacts of neighborhood change will be examined and the analysis of physical improvements will be limited, hence focusing more on the characteristics of gentrification.

In 1964 the word *gentrification* was introduced by sociologist Ruth Glass in a study on urban change in London. Glass argued that Urban Renewal projects, such as government funded slum clearance and federal highway programs, enabled a process by which London neighborhoods were converted into middle class areas, which she labeled gentrification. Glass further argued that Urban Renewal was a *precursor to* gentrification rather than part of the gentrification process itself (Brown-Saracino, 2010). Since the 1960s, experts in economics, sociology, and urban planning have debated the definition, cause, and outcomes of gentrification. Urban planner Lance Freeman and real estate economist Frank Braconi (2004) provided a broad definition of gentrification as it related to New York City neighborhoods in the 1990s by describing it as “a dramatic shift in [neighborhood] demographic composition toward better educated and more affluent residents” that “offers the opportunity to increase socioeconomic, racial, and ethnic integration” (p. 39). In Freeman and Braconi’s view, gentrification has many potential benefits to neighborhoods and they argue that the process can occur without necessarily displacing low-income residents.

However, not all scholars studying the phenomenon of gentrification found that the process produced positive outcomes for city neighborhoods. Based on her research on the understanding and definition of gentrification, sociologist Japonica Brown-Saracino (2010) concluded that anthropologist Gina Perez provided a “straightforward” definition of gentrification, describing it as:

An economic and social process whereby private capital (real estate firms, developers) and individual homeowners and renters reinvest in fiscally neglected neighborhoods through housing rehabilitation, loft conversions, and the construction of new housing stock. Unlike Urban Renewal, gentrification is a gradual process, occurring once one building or block at a time, slowly reconfiguring the neighborhood landscape of consumption and residence by displacing poor and working-class residents unable to afford to live in 'revitalized' neighborhoods with rising rents, property taxes, and new businesses catering to an upscale clientele. (p. 12-13)

Perez's definition aligns with Glass's conception of gentrification as its own economic and social process distinct from Urban Renewal. Perez's definition also portrayed gentrification as having a more negative impact on neighborhoods than Freeman and Braconi described, stating that gentrification displaces poor and working-class residents. Although there is no consensus among scholars about the phenomenon of gentrification and its impact on urban settings, it remains a central concern of planners, scholars, and activists.

Neil Smith is credited with developing theories about gentrification of the inner city neighborhoods as an economic process driven by real estate prices and speculation. Smith and Williams (1986) suggest, "Gentrification connotes a process which operates in the residential housing market. It refers to the rehabilitation of working-class and derelict housing and the consequent transformation of an area into a middle-class neighborhood" (p. 1). Marcuse applied Smith's theory to New York City studying gentrification during the 1970s and 1980s in Manhattan neighborhood's including the Lower East Side, which

is further studied in Chapter IV. Marcuse (1986) connects abandonment and gentrification explaining that both are “reflections of a single long-term process, resulting from the changing economy of the central city. The gentrification process has two aspects: the shift from manufacturing to services...and the increasing professionalization and concentration of management and technical functions” (p. 154). Both Smith and Marcuse (1986) argue that gentrification results from long-term investment or new construction after an entire neighborhood has been abandoned. According to Marcuse (1986), changing demographic data in New York City neighborhoods created a pattern, which revealed that the city’s process of gentrification occurring in the late 20th century was “not from a massive influx of additional well-to-do to the city, but rather from a spatial reshuffling of a relatively constant or even declining number” (p. 164).

Zukin (2010) based her research of gentrification on Smith’s theory and labeled the change in New York City neighborhoods beginning in the 1980s, as a “determined, concentrated process of destruction” (p. ix). She stated that “gentrifiers” increased in numbers in some of the neighborhoods experiencing revitalization and developed into an influential political force that changed the city’s neighborhoods. But this change was, in her view, inauthentic, and therefore destructive to the neighborhoods, which was how she viewed gentrification.

Zukin’s position is a controversial one, as not all scholars would agree that the city’s urban revitalization efforts were entirely destructive; however, it is a good illustration of how experts tend to define gentrification’s impacts rather than its causes. For example, Brown-Saracino’s (2010) research found that “generally speaking, most scholars’ definitions of gentrification center on gentrification’s outcomes or

consequences, rather than on its causes or on the character of the process” (p. 13). The primary enablers of gentrification in the late-20th and early-21st centuries, most scholars believe, were government policies and broad economic and demographic shifts, such as liberalized lending practices. The controversy surrounding gentrification, which has generated significant debate among scholars, is the social and economic impact on neighborhoods. Freeman and Braconi argued that the result was desegregation; Perez argued that it resulted in displacement; and Zukin described it as a process of urban destruction that leads to inauthentic urban places.

Gentrification is a phenomenon, which should be understood as neighborhoods experience redevelopment, because the change associated with gentrification is often a major concern among New York City residents, planners, and social activists. For example, by the mid-1980s social activists in the city succeeded in generating enough concern and discontent among residents over the process of gentrification (as a result of the change experienced in Greenwich Village, SoHo, and the Lower East Side) that the Real Estate Board of New York, Inc. felt compelled to run an advertisement in the *New York Times* defending their position (Rosler & Wallis, 1991). The advertisement entitled “Is Gentrification a Dirty Word?” begins by recognizing the threat of gentrification when it states, “There are few words in a New Yorker’s vocabulary that are as emotionally loaded as ‘gentrification’” (apud Smith, 1996, p. 29). The advertisement points out the varying examples of gentrification – from “affordable housing” to “safer streets” to “homogenization” to “formerly diverse neighborhood” to “ownership” to “higher rentals.” These descriptions are perceived as positive images to some residents and

negative to others. The advertisement ends with a section titled “A role for public policy,” and states:

We believe that whatever displacement gentrification causes, though, must be dealt with with public policies that promote low- and moderate-income housing construction and rehabilitation, and in zoning revisions that permit retail uses in less expensive, side street locations.

We also believe that New York’s best hope lies with families, businesses and lending institutions willing to commit themselves for the long haul to neighborhoods that need them.

That’s gentrification. (apud Smith, 1996, p. 29)

The term gentrification has been in the vocabulary of New Yorkers for decades and, as the 1985 *New York Times* advertisement “Is Gentrification a Dirty Word?” illustrates, it is closely associated with negative impacts such as displacement. As a result, extensive studies and debate have ensued in an attempt to quantify the impacts of gentrification, such as a study released by the New York City Department of Research, Policy and Program Development in 1987 that attempted to measure the displacement pressures of gentrification in the Lower East Side based on concerns of housing advocates for low-income tenants (DeGiovanni, 1987). Although the many details and intricacies of the literature on gentrification are beyond the scope of this study, this overview provides important context for explaining the social and economic impacts of neighborhood change found in the case study analyses in Chapter IV.

III. RESEARCH PROBLEM AND METHODOLOGY

III.1. Research Problem

Since the period of New York City reinvestment at the end of the 20th century, scholars have debated the socio-economic impacts of change on existing residents and businesses including displacement pressures, the effects of gentrification, loss of neighborhood character and identity, and racial segregation. Gaps in research on social and economic impacts of neighborhood redevelopment need to be closed to understand consequences prior to actions of redevelopment and gentrification. Such findings will help planners protect and shape neighborhood industry, residential population, culture, and diversity.

In the late 1990s, real estate speculators claimed Red Hook, Brooklyn was New York City's neighborhood next in line to experience gentrification. Despite these speculations, this has not yet proven to be true (Sternbergh, 2007). What remains unclear is how reinvestment may change Red Hook in the future as well as how such change might impact existing low-income neighborhood residents and manufacturing businesses. The neighborhood is currently isolated from the rest of Brooklyn by highways, and few public transportation options, and had suffered from disinvestment during the end of the 20th century. Scholars such as Philip Kasinitz feel it is inevitable that Red Hook will experience redevelopment stating, "with so many of the surrounding neighborhoods so saturated and with such a need for both housing and commercial space that close to the middle [of New York City]... Red Hook will continue to have "up" development" (personal communication, May 7, 2012).

Without an understanding of the change that has occurred in other New York City neighborhoods, the changes to Red Hook that Kasinitz refers to are difficult to gauge. A study of the planning and development impacts on other New York City waterfront manufacturing neighborhoods will help to build an understanding of the processes of change that Red Hook may experience. With the understanding of catalysts and impacts of neighborhood change, developers and the city will have the foundation for understanding how future change in Red Hook will likely affect existing residents and businesses. This understanding will provide context for creating future planning policies and plans for Red Hook as well as other evolving urban neighborhoods.

III.2. Research Methods

In order to identify future changes that may generate the most positive outcomes for Red Hook, a case study methodology of neighborhood redevelopment was used. Yin (2003) defines a case study as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). This definition supports the rationale for using a case study approach to the discussion of Red Hook because the phenomenon of neighborhood redevelopment and the social and economic context of Red Hook are changing over time. Yin (2003) continues by explaining, “the case study as a research strategy comprises an all-encompassing method – covering the logic of design, data collection techniques, and specific approaches to data analysis” (p. 14).

III.2.1 Logic of Research Design

According to Yin (2003), “the [research] design is the logical sequence that connects the empirical data to a study’s initial research questions and, ultimately, to its conclusions” (p. 20). In this study, the design was developed to gauge the potential social and economic impacts of neighborhood redevelopment on Red Hook residents and businesses. The research design consists of a three-step process in obtaining and analyzing neighborhood development:

(1) First, the history of neighborhood redevelopment is analyzed to understand the catalysts and impacts of social and economic change in similar neighborhoods. The analysis is based on a synthesis of: current past and present literature; past and present planning policies; research studies on New York City gentrification since the 1970s; and past and present demographic data. The literature primarily consists of books, peer-reviewed journals, and articles written by scholars that follow urban change: sociologists, geographers, and urban planners. The research studies on gentrification and displacement were conducted by independent researchers affiliated with major universities and published in peer-reviewed journals, books, or in collaboration with a New York City agency. Demographic and economic data was gathered from the U.S. Census Bureau and primarily came from the 1990, 2000, and 2010 Decennial Censuses.

(2) Second, common catalysts of neighborhood change that lead to redevelopment are distilled through a review of urban planning literature and New York City history, and interviews with local urban scholars.

(3) Third, the economic and social impacts of neighborhood redevelopment are analyzed. The economic impacts focus primarily on changes in median home values,

percent of non-family households, average household size, number of housing units, vacancy rates, and renter occupancy rates to gain an understanding of the economic condition of the neighborhood. Where data is available, employment rates, income, and industry sectors are also considered. Social impacts are considered based on changes in population, race, poverty, and percent of female head-of-households with children. If education level can be obtained from existing data, it is also considered.

III.2.2 Data Collection Techniques

This thesis uses a mixed-method research approach and relies primarily on qualitative data to fill in the gaps of neighborhood change that is occurring in Red Hook and the socio-economic impacts associated with redevelopment. U.S. Census Data is the major quantitative source, and the qualitative data adds richness to the numbers. A triangulation method was applied to provide cross-validation with at least two sources of data. In the social sciences, the triangulation method can be traced back to Campbell and Fiske who “argued that more than one method should be used in the validation process to ensure that the variance reflected that of the trait and not of the method” (Jick, 1979, p. 602).

The U.S. Census provided quantitative data primarily between 1990 and 2010 to compare neighborhoods and develop trends seen in neighborhoods experiencing gentrification. Census data for 2000 and 2010 was retrieved from the U.S. Census Bureau’s American FactFinder. The Bureau for Disease and Control website provided 1990 Census Data, but it was limited. Additional Census Data was provided in a study conducted by the New York City Department of Research, Policy and Program Development related to displacement and gentrification in New York City. All Census

Data for the neighborhoods in question was compiled by census tract in order to separate areas with large public housing complexes and maintain neighborhood boundaries. The neighborhood boundaries (Figure 2) were determined by New York City neighborhood designations and rezoning districts.

Figure 2. *Battery Park City, the Lower East Side, and Western Williamsburg Census Tracts (2010)*
(U.S. Census Bureau, 2010)

Qualitative data for the purposes of triangulation came primarily from published works on urban planning and neighborhood change in New York City: books, and articles from peer-reviewed journals and periodicals. New York City-based urban planning scholars were interviewed to provide a second point of triangulation with the mixed research methods. The interviews were conducted in person, over the telephone, and via email. Because each of these scholars has studied the neighborhoods in question, the interviews included questions pertaining to their specific published works (see Appendix for a list of interviewees and questions).

In a few instances, the 1990 and 2000 census tracts differed from 2010 census tracts as shown in Figure 3. For example, Red Hook consisted of census tracks 55, 57, 59, and 85 through 2000 and then the tracts changed to 53, 59, and 85 in 2010. When comparing data by tracts, 55 and 57 were combined to create census tract 53. In Battery Park City, one census tract became two as the population grew. In Williamsburg and Red Hook, the number of census tracts slightly declined in 2010 because the waterfront tract (containing primarily manufacturing use) was omitted and the minimal waterfront population was captured in adjacent or newly established tracts.

Figure 3. *Red Hook Census Tracts (1990-2010)*
(City of New York, 2012); (U.S. Census Bureau, 2010)

Based on availability, the quantitative data that could consistently be compared across all four neighborhood cases came from U.S. census data by tract for 1990, 2000, and 2010. The common demographic data points included total population and population by race. Housing and economic data included ratio of non-family households, average household size, number of housing units, vacancy rates, renter occupancy rate,

percent female head-of-households with children, and poverty. This data will help to identify trends that may create social and economic impacts for neighborhood residents.

IV. THREE CASES OF NEIGHBORHOOD REDEVELOPMENT

An analysis of three centrally-located New York City waterfront manufacturing neighborhoods illustrates the influence of public policy, community development initiatives, and the real estate market on the recent evolution of the city's waterfront. The first of these neighborhoods is Battery Park City, which evolved in the 1980s from docking piers along southwestern Manhattan that were in disrepair into a 92-acre residential and commercial infill project. The second neighborhood is the Lower East Side of Manhattan, which was selected for analysis because it illustrates the magnitude of change that is possible through private investment and urban redevelopment in New York City neighborhoods with large public housing complexes. The neighborhood exemplified the urban decay that plagued many of New York City's low-income neighborhoods in the 1970s and 1980s and was transformed into a restaurant and nightlife destination in the 1990s (Abu-Lughod, 1995). And perhaps the most relevant case study to the discussion of Red Hook, Brooklyn is Williamsburg, which grew from a manufacturing and residential community to a neighborhood that primarily supports luxury residential living near the East River. Like Red Hook, Williamsburg is an industrial waterfront neighborhood in the borough of Brooklyn and, also similar to Red Hook, the changes occurring there are recent and ongoing.

The three case study neighborhoods, shown in Figure 4, were selected because of their historical importance to the manufacturing industry, proximity to New York Harbor and the center of New York City, and evidence of recent change. Each neighborhood is analyzed through a three step process: (1) a summary of the neighborhood's history of reinvestment, (2) identification of the catalysts of change and (3) potential economic and

Figure 4. *Location and Boundaries of Case Study Neighborhoods*
(City of New York, 2012)

social impacts of neighborhood change. The analysis of the neighborhood history of reinvestment identifies catalysts of change that can be projected on Red Hook to

determine potential impacts of neighborhood change on Red Hook. This three-step approach sheds light on the important role of planning in New York City's changing neighborhoods, which is then applied to a consideration of the future of Red Hook in Chapter V.

IV.1. Battery Park City

Battery Park City is a \$4-billion mixed use development on 92 acres of landfill in the Hudson River adjacent to the west side of lower Manhattan (Russell, 1994). The neighborhood is bordered on three sides by the Hudson River and is cut off from the rest of lower Manhattan by the West Side Highway (also called West Street) to the east. Before Battery Park City was developed, New York City's 1961 Zoning Resolution zoned the working docks and adjacent neighborhood manufacturing, however since its creation in 1981 it has been designated a special purpose district by the City Planning Commission. In accordance with the city's master plan, the Special Battery Park City District was created to generate extensive residential and commercial development along the Hudson River near the lower Manhattan business district (Figure 5) (The City of New York, 2012).

Between 1990 and 2010, Battery Park City's population increased by 140.9 percent since 1990 from 5,556 residents to 13,386 residents and the neighborhood's number of housing units increased by 91.9 percent from 4,056 units to 7,785 units (U.S. Census Bureau, 2010). Although Battery Park City contains only a small fraction of Manhattan's 1,585,873 residents, the neighborhood has grown more rapidly than the Borough of Manhattan, which increased by 6.6 percent between 1990 and 2010 (The City of New York, 2012).

Figure 5. *Special Battery Park City District Plan*
(The City of New York, 2012)

Today, Battery Park City includes north and south residential complexes, a centralized commercial financial center, and designated park space along the water. The neighborhood contains Stuyvesant High School, Governor Nelson A. Rockefeller Park, the World Financial Center, the Winter Garden (a 120-foot-high vaulted atrium sheltering sixteen tall palm trees and a grand marble staircase), the Battery Park Esplanade, the Museum of Jewish Heritage, the Skyscraper Museum, a multiplex cinema, Robert F.

Wagner Jr. Park, and several high end hotels such as the Ritz-Carlton New York (Fainstein, 2001).⁹

IV.1.1 History of Reinvestment

Lower Manhattan was a thriving port in New York Harbor from the days of Dutch settlement until the Port Authority of New York and New Jersey built modern docks at Port Elizabeth near Newark, New Jersey after World War II (Gordon, 1997). As a result of the relocation of the Port to New Jersey, the piers in southwestern Manhattan along the Hudson River became inactive. Concurrently, a large migration of whites of various European ancestries migrated from lower Manhattan to the more racially homogeneous suburbs of Long Island, Connecticut, and New Jersey, a phenomenon that sociologists referred to as “white flight.” These social and economic changes in the 1950s led to a lack of investment in lower Manhattan, which further exacerbated the decline of this part of the city. Then, by the late-1950s political leaders began to reexamine urban priorities and prominent business leaders, such as David Rockefeller, got involved by initiating Urban Renewal efforts to revitalize lower Manhattan’s Financial District (Fainstein, 2001).

In 1958, David Rockefeller, head of Chase Manhattan Bank, established the Downtown-Lower Manhattan Association (D-LMA) by consolidating two civic groups, the Downtown Manhattan Association and the Committee on Lower Manhattan (D-LMA, 2009). D-LMA commissioned the architecture firm of Skidmore, Owings and

⁹ Stuyvesant High School is a New York City public school that specializes in mathematics and science. It was located on Manhattan’s east side until 1992 when it moved to its current location at the northern edge of Battery Park City. Stuyvesant is noted for its strong academic programs and is ranked among America’s best public high schools.

Merrill to draw up plans for revitalizing lower Manhattan. In response to the city's interest in pursuing the development of Manhattan's southwestern waterfront property, three other entities prepared proposals: (1) the New York City Department of Marine and Aviation, which operated the piers, (2) the New York Planning Commission, which is the city's planning and land use authority, and (3) New York State, led by David Rockefeller's brother, Governor Nelson Rockefeller (Gordon, 1997).

The interests of several powerful organizations complicated the design process and delayed the development along the southwestern Manhattan piers through the 1960s. In the end, the city and state governments emerged as the two most influential development forces: New York City owned the land, had statutory power to regulate urban development, and had prepared a superior development plan; Governor Rockefeller had financial provisions, legislative authority, and a determination to develop lower Manhattan (Gordon, 1997). In 1966, Governor Rockefeller and David Rockefeller proposed the development of Battery Park City, which was to include two office towers and 14,000 residential apartments built upon 92 acres of landfill in the Hudson River (Figure 6) (Rosler & Wallis, 1991).¹⁰ Given the difficult situation of competing proposals for the proposed development, it became apparent that the city and state would need to work together if Battery Park City was to be built; nevertheless the debate ensued on what organization should ultimately build the new neighborhood (Fainstein, 2001).¹¹

¹⁰ Of the proposed 14,000 apartments, approximately 6,000 were designated luxury, 6,000 moderate-income, and 2,000 low-income apartments.

¹¹ The name Battery Park City came from the gun emplacement, the West Battery, which was located overlooking the New York Harbor to guard the city from naval attack.

Figure 6. *Location and Proposed Plan of Battery Park City*
(Downtown-Lower Manhattan Association [D-LMA], 2009)

Both the city and state agreed on the development strategy to build a predominantly residential community on landfill adjacent to the new World Trade Center site. The conflict between the two governments was a disagreement over urban design preferences and policy implementation, and ultimately was a matter of who would have control of Battery Park City's development (Gordon, 1997). In an attempt to stifle the city-state debate, the state legislature created the Battery Park City Authority (BPCA) in 1968 under the Urban Development Corporation Act. BPCA was set up as a public-benefit corporation intended to improve the Battery Park City Project Area by creating cooperation with the city and private sector (Rosler & Wallis, 1991).

At first, the newly founded authority seemed to be making progress when a joint city-state master plan was presented in 1969. The 1969 master plan called for a new modern neighborhood with a set of office buildings (that would connect via a skyway) and residential apartment buildings with nearly 20 percent of the units reserved for families with incomes below the city median (Fainstein, 2010). In 1970, demolition of the dilapidated piers began. The site started with 24.7 acres of fill from the adjacent World

Trade Center excavations and by 1976 the enlarged landfill of 92 acres was complete (Rosler & Wallis, 1991). The site progressed slowly until major problems emerged in the late 1970s. The 1969 master plan proved to be too complex to implement, and a struggling economy eliminated the market for the planned office space. Both the city and the state were in a fiscal crisis that paralyzed access to funds and resources of public development agencies (Gordon, 1997).

By 1979, the real estate market was depressed, the city was near bankruptcy, and the state had to spend over \$130 million to pay off development bonds to prevent the project from defaulting. After addressing political problems between the city and state, the state re-established BPCA as an independent organization with a president and small staff (Gordon, 1997). The state financed the bond obligations while BPCA looked for private investors and retained Alexander Cooper Associates to develop the 1979 master plan. The 1979 master plan extended the New York City street grid, parcelized land as typically found in Manhattan, and focused on the quality of public spaces (Russell, 1994). Construction of Battery Park City finally began in June 1980, nearly fifteen years after its inception (Gordon, 1997).

In July 1980, BPCA invited development proposals for the commercial area and selected Olympia and York Properties (O&Y) as the developer for a billion-dollar, 6.3 million square foot complex to be called the World Financial Center (Fainstein, 2001).¹² In 1981, O&Y began constructing the World Financial Center with a ten-year tax

¹² O&Y was a major international property development firm based in Canada that owned more New York commercial property than any other landlord at the time. The company's greatest achievement may have been the World Financial Center in Battery Park City as they constructed a project large and luxurious enough to constitute an entirely new business center and offered sufficient incentives to attract tenants.

abatement from the Urban Development Corporation in return for developing the project in half the amount of scheduled time (Rosler & Wallis, 1991).¹³ BPCA continued to own the land and leased it to the developers. A unique feature of the site was that with the creation of BPCA, Battery Park City is on state land so the lessees did not need to pay real estate taxes to the city. Instead, the lessees developing the sites were required to make annual payments in lieu of real estate taxes (or called PILOT for payment in lieu of taxes) to BPCA based on the value of the commercial and residential properties (Fainstein, 2001).¹⁴ PILOT sums were comparable to Manhattan real estate taxes (Rosler & Wallis, 1991).

In 1982 Gateway Plaza, Battery Park City's first phase of residential development, was completed, and three years later the World Financial Center opened as a corporate headquarters with four office towers, a winter garden, a public plaza, and a yacht harbor on the Hudson River (Rosler & Wallis, 1991). The residential development did not contain the originally proposed amount of low-income housing units. Political leaders had justified the exclusion of low-income households (and the granting of tax subsidies for the office towers and luxury apartments) by indicating that increased proceeds would support the development of more low-income housing in areas of the city where land was cheaper (Fainstein, 2001).

As a result, in 1986 under Governor Mario Cuomo's direction, the Housing New York Program was developed (backed by excess BPCA revenues) to create low- and

¹³ The total value of the deferred tax was \$117 million over a ten-year period. Ten years after O&Y's last building was completed, O&Y was to begin a 15-year payback of \$76 million, which is estimated to be a final savings of \$85-90 million for the developer.

¹⁴ Although the tax abatements initially limited the amounts received.

moderate-income housing in the city (Rosler & Wallis, 1991). BPCA issued \$400 million of revenue bonds for low-income housing and promised to provide more financial support in future years (Fainstein, 2010).¹⁵ In December 1987, Mayor Edward Koch and Governor Cuomo agreed to set aside enough of BPCA's future rental income to pay back a \$1 billion bond issued for low- and moderate-income apartments in areas of abandonment such as the South Bronx and Central Harlem (Frieden & Sagalyn, 1989). The city and state had chosen to not integrate affordable housing into the project site or have inclusionary housing requirements.¹⁶

By 1996 Battery Park City was considered a successful example of urban waterfront redevelopment that exhibited modern urban design and showed strong financial gains for the city. Over 7,000 residents, 30,000 employees, and thousands of visitors used and enjoyed the new neighborhood every day (Gordon, 1997). As shown in Figure 7, the neighborhood had been developed into a six-million-square-foot commercial center with three 50-story office towers. The residential areas were organized on small east-west cross streets originating from the lower Manhattan street grid and had nearby open spaces, with Rector Place, South Cove, and Battery Place by the south residences, and North End Avenue and Chambers Park near the north. A 1.2-mile esplanade (which has since been extended) also ran the length of the development along the Hudson Riverfront providing access and views to the water (Russell, 1994).

¹⁵ BPCA did provide future payments, however the city government chose to place the money received after 1986 in the general fund rather than committing it to affordable housing initiatives.

¹⁶ A map of areas designated for inclusionary housing in the city can be found in Figure 25.

Figure 7. *Development of Battery Park City*
(Perkins Eastman, 2012)

For the most part, Battery Park City's design (Figure 8) has received very positive reviews from professional critics and the public, but public opinion on the aesthetic and social success of the neighborhood is more varied. Critics have claimed that the neighborhood is too polished and luxurious, and it lacks the architectural contrasts of the early-twentieth century city. Urban planning professor Susan Fainstein (2001) called the Battery Park City development "the antithesis of the naturally developing, heterogeneous urban district prescribed by Jane Jacobs," (p. 171) yet adds that the neighborhood incorporates many of Jacobs' conditions of generating diversity as it is dense, mixes residential and commercial uses, has short blocks, builds along the street line, and provides small accessible parks.

Figure 8. *Examples of Battery Park City Architecture*
(Holman, 2011); (flickr, 2012)

Since the initial development in 1980s, the population continues to increase (Figure 9) and construction continues on high-rise residential and commercial buildings. In the 1990s, six new buildings were constructed: five residential and one commercial. Despite the environmental and economic impact on the community from the collapse of the neighboring World Trade Center Towers on 9/11/2001, thirteen additional buildings were built after 2000: eight residential, three mixed use, and two commercial (Emporis GMBH, 2000-12). The 2010 U.S. Census Bureau shows that an additional 3,729 housing units were constructed since the reported 4,056 units in 1990. The cumulative total of 7,785 residential units is still short of the original proposal for 14,000 residences, which may indicate that more growth is to come for the neighborhood. Although Battery Park City does contain some affordable housing, the median residential real estate value is \$889,005, which is an increase from the \$500,001 median home value in 1990 and is 7.6 percent higher than Manhattan's median home value of \$825,900 (U.S. Census Bureau, 2010).

Figure 9. *Battery Park City Population by Race (1990-2010)*

(National Center for Disease Control and Prevention [CDC], 1990); (U.S. Census Bureau, 2010)

IV.1.2 Catalysts of Change

The neighborhood change, which can be traced backed to the period after World War II and continues today is the result of actions from various contributors including the city and state of New York, individual investors and visionaries, and real estate developers. In the conceptual phase of the Battery Park City project, the Port Authority of New York and New Jersey and the influence of David Rockefeller instigated the change of the deteriorating manufacturing district. With change and interest that arose from their actions, the state of New York became involved and created the BCPA. BCPA leveraged their relationship with investors and leased land to developers to create the neighborhood that exists today.

The Port Authority of New York and New Jersey's decision to relocate shipping in and out of New York Harbor from lower Manhattan to Port Elizabeth, New Jersey was the initial catalyst for developing the waterfront property adjacent to the piers of Manhattan and Brooklyn. With the Port Authority's relocation of its main port entry and

the decline of manufacturing and waterfront industry more generally throughout the country, the piers were not utilized. Because the city owned the real estate where the piers were located, it was the initial force driving the Battery City Park project.

David Rockefeller, who had a vested interest in the future success of the area with his corporate financial headquarters positioned in lower Manhattan, brought leadership, vision, and financial support to bring the Battery Park City project to fruition. Rockefeller's downtown redevelopment organization, which was focused on revitalization and economic growth, was critical for gaining investors and the support of the city in the early stages of the project. His local influence and his political connections at the state level aided the neighborhoods evolution, by getting the state involved through new public policy and financial backing.

The state passed the Urban Development Corporation Act (UDCA), which was the catalyst for some of New York City's largest projects including Battery Park City, and overrode local government and citizen participatory mechanisms in urban planning (Strom & Mollenkopf, 2007). In the case of Battery Park City, the UDCA allowed the state legislature to create the BPCA, which was given authority over landownership and development. The city abandoned the traditional regulatory role in planning and relied on the BPCA for quality control of public spaces and private buildings (Gordon, 1997). No citizen participation was involved in the planning of Battery Park City and private developers ultimately dictated the outcome of the urban design (Fainstein, 2010). Notwithstanding the efforts of the city and David Rockefeller during the earliest phase of conception, the state-enacted policy and investment by developers were the strongest drivers in creating neighborhood change in Battery Park City.

IV.1.3 Economic and Social Impacts

Generally speaking, the development in Battery Park City has created positive economic and social impacts for the neighborhood through the creation of jobs, livable spaces, and accessibility to amenities and resources. As recent as 2010, the neighborhood showed evidence that it continued to grow in the number of jobs and residents. The types of jobs created are compatible with the residents that live in the neighborhood, and the vast open space, retail and cultural amenities provide the neighborhood with recreational and social gathering opportunities. The population of the neighborhood is racially homogeneous and contains a poverty rate 10.3 percent lower than that of Manhattan as a whole.

The World Financial Center, located in Battery Park City, attracts the industry sectors of finance, insurance, and real estate (referred to as FIRE), which employ one-third of the neighborhood's residents (U.S. Census Bureau, 2010). The continued development in the area provides employment in the lender services, construction, and real estate industries, as well as increases job opportunities by providing commercial space targeting retail, finance, and insurance companies.

According to 2010 U.S. census data, residential real estate in Battery Park City is consistently priced with the borough at a median home value of \$889,005, which is 7.6 percent higher than Manhattan's \$825,900 median home value. The neighborhood's median home value rose by 77.8 percent from 1990 to 2010, which is slightly higher than Manhattan's increase of 75.5 percent (U.S. Census Bureau, 2010). The ratio of mean household income to mean home value in Battery Park City is 24.9 percent, while it is

only 14.4 percent in Manhattan. This number, however, may be misleading as it includes income of renters as well.

Census data from 2010 indicates that the majority of residents in Battery Park City rent their apartments, which is consistent with the rest of Manhattan. The residential vacancy rates for the neighborhood were 16 percent, which is 6 percent higher than Manhattan. The neighborhood's higher vacancy rate may be a result of the continued construction that puts a large number of new units on the rental market or may indicate a sign that renters are choosing other neighborhoods based on price, location, or other factors.

The early development plans of Battery Park City called for subsidizing at least half of the 14,000 proposed apartments to create low- and moderate-income households. With lax enforcement and a struggling economy, developer subsidies instead went toward financing office buildings (in the form of tax abatements) and the housing plans changed to primarily luxury apartments by the 1979 master plan (Frieden & Sagalyn, 1989). Under the urging of Governor Mario Cuomo, BPCA suggested that revenue bonds support affordable housing within the project, but Mayors John Lindsay and Edward Koch chose to direct the funds to the city's neighborhoods with the greatest need of rehabilitation (Gordon, 1997). While directing funds to needy areas is an understandable approach, revenue bonds could have supplemented developers' cross-subsidies within the buildings.¹⁷ Such a policy would allow developers to provide below-market units (that

¹⁷ Cross-subsidization is the practice of charging higher prices to one group of consumers in order to subsidize lower prices for another group.

ideally remain at below-market) in every residential structure in the district (Fainstein, 2010).

As a result of the lack of low- and moderate-income housing options, Battery Park City evolved into a neighborhood with an economically and socially homogenous group of residents. When compared to Manhattan as a whole, recent census data indicates that Battery Park City contains primarily white, well-educated, non-family renters who make high incomes and support the financial, insurance, and real estate industries (Table 2). For example, the white, non-Hispanic race constitutes 67 percent of the population in Battery Park City compared to only 48 percent in all of Manhattan. Also, the neighborhood population is well educated. Over 83 percent of the district's residents have at least a bachelor's degree and there is a low unemployment rate of 1.6 percent compared to the Manhattan's rate of 9.2 percent. Battery Park City's mean household income of \$221,074 is 85.5 percent Manhattan's \$119,199 mean household income.

Trends in the U.S. Census Data between 1990 and 2010 (Table 3) indicate that the number of housing units in Battery Park City has grown at a rate of 91.9 percent, increasing the neighborhood's residential housing density. The neighborhood's households are shifting toward becoming a majority of family households as the number of nonfamily households has decreased by 54.7 percent. Unlike many gentrifying neighborhoods, the poverty rate has increased, but remains the lowest out of all case study neighborhoods.

Table 2. *Comparison of Battery Park City and Manhattan Census Data (2010)*

<i>Category</i>	<i>Battery Park City</i>	<i>Manhattan</i>	<i>Difference</i>
Median Age	35	36	(1)
Percent White, Non-Hispanic	67%	48%	19%
Percent Bachelor's Degree ¹⁸	83.1%	58.1%	25.0%
Percent Living in Poverty	6.1%	16.4%	(10.3%)
Percent Unemployed	1.6%	9.2%	(7.6%)
Percent Non-Family Households	79%	60%	19%
Average Household Size	2.04	1.99	0.05
Household Vacancy Rate	16%	10%	6%
Renter Occupancy Rate	79%	77%	2%
Median Home Value	\$889,005	\$825,900	7.6%
Percent Working in FIRE ¹⁹	34%	16%	18%
Percent Working in Professional Services ²⁰	28%	19%	9%
Mean Household Income	\$221,074	\$119,199	85.5%

Note. Shaded rows indicate at least a 10% difference, and brackets indicate Battery Park City's negative difference. (U.S. Census Bureau, 2010)

¹⁸ The "Percent Bachelor's Degree" represents the population 25 years and older that contains a Bachelor's Degree or higher level of education.

¹⁹ FIRE represents the civilian employed population over 16 years who work in finance, insurance, real estate, rental, and leasing.

²⁰ Professional Services represents the civilian employed population over 16 years who work in professional, scientific, management, administrative, and waste management services.

Table 3. *Battery Park City Economic and Demographic Data (1990-2010)*

<i>Subject</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>	<i>Percent Change</i>
Households	3,389	4,419	6,562	93.6%
Housing Units	4,056	5,382	7,785	91.9%
Median Home Value	500,001	--	889,005	77.8%
Vacant Units	659	963	1,223	85.6%
Vacancy Rate	16.2%	17.9%	15.7%	-0.5%
Percent Living in Poverty	3.9%	5.5%	6.1%	2.2%
Female Head-of-Households with Children (FHHC)	27	137	223	725.9%
Percent of FHHC	0.8%	3.1%	3.4%	2.6%
Nonfamily Households	2,163	2,609	3,347	54.7%
Percent Nonfamily Households	63.8%	59.0%	51.0%	-12.8%
Renter Occupancy	2,740	3,639	5,183	89.2%
Percent Renter Occupancy	80.7%	82.3%	79.0%	-1.7%

Note. A dash indicates that data was not obtained. (CDC, 1990); (U.S. Census Bureau, 2010)

IV.2. The Lower East Side

The Lower East Side is a primarily residential neighborhood on the eastern side of lower Manhattan historically known for immigrant populations that supported the nearby garment industry and resided in its tenements and low-income housing. The neighborhood was built on swampland adjacent to the ports along the East River and is bounded by 14th Street to the north, 4th Avenue to the west (known as The Bowery), the East River to the east, and Canal Street and the Manhattan Bridge to the south.²¹ The

²¹ In the past the area between the Brooklyn Bridge and Manhattan Bridge was sometimes considered to be part of the Lower East Side, but by the 21st century it was called Two Bridges and associated with

neighborhood's mostly four- to six-story residential buildings have a prime location between the commercial skyscrapers of Midtown to the north and Wall Street to the south (Figure 10).

Figure 10. *Lower East Side Location and Boundaries*

The neighborhood contains four zoning districts: medium- and high-density residential, commercial, manufacturing, and park. Despite the clear boundaries of the zoning designations set by the city in 1961 and 2008, the use of the land is sporadic and varied and includes, in addition to the four zoned uses, a fifth use called mixed use (Figure 11). To promote Mayor Michael Bloomberg's planning goals in the 2000s, the New York City Planning Commission proposed to rezone over 110 blocks in the Lower East Side. The goals of the city were to preserve the neighborhood's character and scale with height limits, while also providing opportunities for modest growth and affordable

Chinatown, which lies east and south of the Lower East Side. The area between the bridges currently consists of three census tracts primarily containing housing projects and was not included in the analysis of 1990, 2000, and 2010 Census Data.

housing along main mass-transit corridors. In November 2008, the City Council adopted the East Village/Lower East Side Rezoning after three years of debate and dialogue with Community Board 3, residents, local elected officials, and civic organizations (The City of New York, 2012).²²

Figure 11. *Lower East Side Zoning and Land Use*
(The City of New York, 2012)

Sociologist Christopher Mele (2000) claimed that in the early 20th century, the Lower East Side was the most densely populated location in the world, referring to it as an “evolving respite for immigrants” (p. 22). The neighborhood’s history does reflect a pattern of migration with new social and ethnic groups moving in over the decades of the 20th century. The first half of the 20th century was a true melting pot of immigrants from various parts of the world, including Irish and Russian Jews, Ukrainians and other Eastern Europeans, and, later, Puerto Ricans. The area saw an influx of activists and artists in the late 1960s and early 1970s, which then led to a period of gentrification in the

²² For the East Village/Lower East Side 2008 rezoning boundaries, see Figure 16.

last decades of the century and the beginning of the 21st century (Mele, 2000). Prior to the wave of gentrification that began in the late 1970s, the Lower East Side was comprised of a highly diverse population differentiated by age, ethnicity, income, values, and lifestyles (Abu-Lughod, 1995).

Today the neighborhood is split into two districts: the East Village to the north of Houston Street bordering the buildings of New York University's (NYU) campus and containing Tompkins Square Park, the East River Promenade, and the Jacob Riis and Lillian Wald Public Houses; and the area below Houston Street bordering Little Italy and Chinatown, and containing Manhattan's largest New York City Housing Authority (NYCHA) development (the Baruch Houses) with 17 buildings, as well as over a dozen large public housing complexes built in the 1940s to 1960s, including Vladeck, LaGuardia, and Rutgers (New York City, 2012). Within the two districts, NYCHA provides housing for over 45,000 low-income residents, which is one third of the neighborhood's 136,971 residents (U.S. Census Bureau, 2010). Census Data for the period of 1990 to 2010 illustrates the diverse racial make-up of the neighborhood as shown in Figure 12.

Figure 12. Lower East Side Population by Race (1990-2010)

(CDC, 1990); (U.S. Census Bureau, 2010)

IV.2.1 History of Reinvestment

In the early 1800s, the Lower East Side (known at that time as the “Dry Dock”) contained acres of swampland and access to the East River. Hundreds of thousands of immigrants entered the United States through New York City from 1850s to 1920s, and many resided with relatives and friends (and later settled) in the downtown industrial areas, including the Lower East Side (Rosler & Wallis, 1991).

In half of a century (from 1855 to 1905), the neighborhood increased in population by two and a half times, from just under 200,000 in 1855 to more than 518,000 by 1905, and peaked at 542,000 in 1910 (when nearly 2 out of every 3 residents were foreign born) (Abu-Lughod, 1999). The new immigrant labor supported the city’s growing garment industry and intensified Manhattan’s cultural and linguistic diversity. Five-story multi-family “tenement-houses” were built to accommodate the large number of poor immigrants (abud Abu-Lughod, 1999).

The housing stock was often poorly constructed, unventilated, and tightly confined (Figure 13). By 1904, tenement residents, having learned from their ongoing struggle to form labor unions, organized themselves against unjust evictions and rising rents. Residents established a broad political base to protect decent and affordable housing for the neighborhood (Rosler & Wallis, 1991). Despite efforts to keep rents affordable, the population of the Lower East Side declined during the 1930s. This was a result of household vacancy due to rental increases and a natural process of “uncrowding” the very cramped living quarters (Jacobs, 1961).

Tenements on Houston Street at 1st Avenue (1937)

Family inside Tenement Housing

Figure 13. *Lower East Side Tenement Houses*

(Abbott & McCausland, 1973); Photo at right from Jacob A. Riis, Museum of the City of New York (Feininger & Lyman, 1964)

After the 1930s, tenements along the waterfront were cleared by the city for the development of large-scale low-income public housing projects. Beyond the city's low-income housing redevelopment efforts, development did not occur in the neighborhood for decades and the Lower East Side suffered from intense disinvestment through the 1960s (Abu-Lughod, 1995). Several factors contributed to the lack of development in the Lower East Side: first, many property owners were abandoning in their properties, and the few that were interested in investing were limited by credit-blacklisting maps established by financial lenders; In addition, real estate developers had little interest in investing in the area because of its lack of aesthetic appeal and small property lots (Jacobs, 1961)

By 1960, the Lower East Side contained approximately 200,000 residents, which was a loss of roughly 242,000 people in half of a century. Lower rents (than nearby neighborhoods such as Greenwich Village and SoHo) attracted a growing Puerto Rican population through the 1960s and 1970s (N. Marwell, personal communication, May 31, 2012). During the same time period, artists and musicians began inhabiting the area north

of Houston Street partly due to the neighborhood's reputation for raucous behavior and adventurous living (Smith & DeFilippis, 1999). By the late 1960s, the area north of Houston Street had become so trendy that it had developed its own identity known as the East Village (Abu-Lughod, 1995). At first, it was the social circles of the art, fashion, music, and design communities that found the character of the East Village desirable, and later, portions of the city's middle class population, specifically young professionals seeking alternatives to living in the upper class buildings in upper Manhattan (Mele, 2000). Despite the East Village's increasing popularity among certain social groups, the Lower East Side's population had shrunk to 174,532 by 1970 (DeGiovanni, 1987).

Between 1976 and 1978, the East Village experienced its peak vacancy rates due to abandonments from the city's fiscal crisis, and 800 buildings were in tax arrears (Rosler & Wallis, 1991). As measured by the rate of property-tax delinquency, disinvestment from residential buildings peaked in 1976 and again in 1980, but fell continuously throughout the 1980s with a sustained decade-long period of reinvestment shown in Figure 14 (Sorkin, 1992).

Figure 14. *Lower East Side Housing Arrears (1975-1996)*
(Smith & DeFilippis, 1999)

In the early stages of reinvestment, homeowners began to pay city property tax arrears, which was a positive indication of renewed interest in the neighborhood. Another sign of neighborhood reinvestment was the increase in the number of banks, savings and loans, and other lending institutions in the area as speculators reinvested in the neighborhood by purchasing one or more properties, often solely for the purpose of a quick resale to make a profit (Abu-Lughod, 1995). This property investment by hundreds of homeowners was a large contributor to the redevelopment of the Lower East Side during the 1980s (Mele, 2000).

With an increased interest from property owners and the middle class, real estate developers began larger scale residential conversions from rental units into condominiums and cooperatives. The neighborhood's large number of rent-regulated housing units presented a challenge for landlords because New York State laws protected renters, but landlords developed tactics to empty and transform buildings (Mele, 2000).²³ To offset the loss of affordable rental units, the city utilized its real estate capital of over 200 properties, which it had obtained through private property tax foreclose (Rosler & Wallis, 1991). In 1981, the Department of Housing Preservation and Development solicited proposals for an Artist Homeownership Program, and in 1982 announced a renovation project that would yield 120 housing units in sixteen buildings.²⁴ Five artist

²³ For example, New York State Law requires that a certain proportion of apartment occupants agree to the building's cooperative conversion, which they do by buying their apartment; in the East Village, few residents had the financial resources to buy their units so owners wanting to convert their buildings kept vacated apartments empty to meet the state-required necessary proportion for the buy-out plan (Abu-Lughod, 1995).

²⁴ The housing units were to each cost an estimated \$50,000 and target artists that earned at least \$24,000 a year. According to Mayor Edward Koch, the purpose of the renovation was to renew the strength and vitality of the community.

community groups and two developers were selected by the city to assist with executing the \$7 million plan (Sorkin, 1992). These efforts by the city seem to reflect a recognition of the importance of maintaining a certain balance in the neighborhood – rather than merely letting redevelopment run rampant, the city took steps to preserve some housing for low-income residents, and thereby some of the character of the area.

By 1984, there was evidence of significant real estate change in the neighborhood as property sales prices rose 146.4 percent in a five year period, in contrast to the 43.8 percent rise in property sales prices in the five year period immediately prior between 1968 and 1979 (Sorkin, 1992). Public concern and protest led New York City's Department of Research, Policy and Program Development to conduct a study on displacement pressures facing residents in the Lower East Side (DeGiovanni, 1987). The study was designed to answer two questions: (1) what are the types and magnitudes of pressures for residential displacement, and (2) what causes these pressures. To answer these questions, data was collected through interviews; real estate data (from 1968 to 1984) including transactions, housing code violations and property tax arrears; and U.S. Census data for 1970 and 1980 (DeGiovanni, 1987). In 1987, the Community Service Society published a working paper about the study, which concluded:

The demographic changes and levels of real estate activity observed in the Lower East Side indicate very clearly that gentrification – the immigration of higher income households into low-income neighborhoods with a concomitant increase in property values – is well underway in the area. Among the most dramatic change is the sharp escalation in real estate prices – 146 percent – that occurred

between 1979 and 1984, compared to only a 44 percent increase during the previous eleven-year period.

The study reveals that substantial pressures for displacement confront many Lower East Side residents of all income and educational levels.

(DeGiovanni, 1987, p. v-vi)

By the summer of 1988, residents feeling the pressures of the changing real estate market were demonstrating in Tompkins Square Park and homelessness in the area was growing. City police enforcement in the area was inconsistent and conflicts between police officers, the homeless, and residents frequently occurred.²⁵ On August 5, 1988, several hundred police assembled near the park, apparently misinformed that a demonstration, actually planned for the following night, was going to occur. The next night the second Tompkins Square police riot (the first occurred in 1875) broke out along the edges of the park as the police and a diverse mix of anti-gentrification protestors clashed (Rosler & Wallis, 1991). The protestors saw the city's enforcement of the park curfew as an act of government trying to tame and domesticate the neighborhood to facilitate the already widespread gentrification. In the next few months, the neighborhood's loosely organized anti-gentrification and squatters' movements grew quickly and began to establish connections with local housing groups (Sorkin, 1992).

The national recession of 1989 led to a dramatic decrease in reinvestment, and the housing crisis of the late 1980s put an increasing number of homeless people onto the

²⁵ The city announced it was going to enforce the 1 AM curfew on the park; however the Community Board 3 refused to support the law despite its request for additional police presence on weekends to address resident complaints of noise, litter, drugs, and growing numbers of homeless people. As a result of the difficult situation between enforcers and residents, homeless were often allowed to enter the park again after cleared out at 1 AM.

streets and into Tompkins Square Park, intensifying the squatters' movement (Abu-Lughod, 1995). Several Lower East Side buildings (by 1988 New York City owned some 500 vacant buildings and lots) occupied by squatters were demolished, and in July 1989 periodic police raids (as a result of new parks department rules prohibiting tents or shelters) destroyed the tents, shanties, and belongings of those living in the park (Sorkin, 1992).²⁶ After several years of sporadic riots and conflict between the police and park users, the New York City Police Department took control of Tompkins Square Park on the morning of June 3, 1991 throwing out everyone and announcing that the park would undergo a total renovation (Abu-Lughod, 1995). The 1980s reinvestment wave, which some urban researchers considered to be gentrification, peaked at the same time as the historic 1991 police riot occurred. Tompkins Square Park underwent a two-year publicly financed renovation and reopened in 1993 as a cleaner, more controlled open space. By 1994, the real estate market had begun to recover and housing tax arrears in the Lower East Side declined once again, as previously illustrated in Figure 14 (Smith & DeFilippis, 1999).

Based on a study of the Lower East Side disinvestment and reinvestment from 1975 to 1996, Neil Smith and James DeFilippis (1999) described the neighborhood during this period as “undeniably unique,” explaining:

... its social structure is unusually diverse in terms of class, race and ethnicity; its politics disproportionately liberal and historically volatile; it hosted the cutting edge of the city's culture industry; and it incubated the most aggressive anti-

²⁶ This occurred during a period when over 40 tents and other structures were located in the park housing as many as 300 people (Rosler & Wallis, 1991).

gentrification and anti-homeless resistance, the most concentrated squatters' movement of the period, and a significant part of the AIDS and ACTUP activism responsible for the imaginative citywide protests of the decade. (p. 640)²⁷

Smith and DeFilippis' research indicated that an economic recovery on Wall Street in 1994 and citywide increased housing prices spurred reinvestment once again in the Lower East Side. To illustrate the post-1988 disinvestment and reinvestment in the neighborhood, Smith and DeFilippis mapped patterns of low and high turning points of arrears data (Figure 15).²⁸ Disinvestment after the early-1980s wave of investment affected virtually the entire neighborhood between 1988 and 1990, especially the area north of Houston Street and surrounding Tompkins Square Park. Smith and DeFilippis concluded that the entire neighborhood experienced a reversal of disinvestment by 1996.

Despite the multiple waves of reinvestment in the Lower East Side, the neighborhood did not turn into a high-rent district like Battery Park City and has maintained diversity in race. This is possibly due to the city's rent control regulations, the small property lots, and massive existing low-income housing projects, which acted as an obstacle between residents and the waterfront (Abu-Lughod, 1995). The rezoning changes by the city in November 2008 also protected more than half of the neighborhood from redevelopment by instituting building height restrictions as shown in Figure 16.

²⁷ ACTUP (also seen as ACT UP) is an abbreviation for the international advocacy group AIDS Coalition to Unleash Power.

²⁸ During times of disinvestment building owners commonly did not pay property taxes, which is an investment strategy that provides property owners with access to capital. As landlords and owners gained confidence that reinvestment in the neighborhood would occur, they reclaimed property by paying property taxes to the city again. Where buildings are seriously in tax arrears, property owners had to pay back taxes to prevent foreclosure by the city (Abu-Lughod, 1995).

Disinvestment *Reinvestment*

Figure 15. *Disinvestment and Reinvestment in the Lower East Side (1988-1996)*
(Smith & DeFilippis, 1999)

Figure 16. *Lower East Side Rezoning (2008)*
(City of New York, 2012)

IV.2.1 Catalysts of Change

With the continuous influx of immigrants into New York City ports, the tenement and lower-rent apartment buildings in the Lower East Side have historically housed working-class migrant residents since the early 19th century. The neighborhood changed with each wave of new immigrants, but the change that began to transform the neighborhood from a low-income residential neighborhood experiencing disinvestment to a neighborhood attracting real estate investors and better-educated residents with higher incomes was not due to changing demographics. Rather, in the 1980s, real estate speculators, property owners, and, eventually, developers instigated this transformation. The city, a large landowner, influenced redevelopment in the neighborhood through policies such as property tax abatement incentives and zoning. Local residents (including the homeless population, artists, musicians, and others in creative industries) also played a role in creating and then trying to prevent the Lower East Side's progression toward an upscale neighborhood.

Historically, the small lots (typically 25 feet wide by 100 feet deep) found in the Lower East Side were deterrents for real estate speculators and developers because they limited investment opportunity and were not as desirable as larger blocks located in other areas of the city. As developers increasingly invested in neighborhoods around the perimeter of the Lower East Side, interest and speculation of rising real estate prices in the neighborhood grew among property owners (Mele, 2000). Due to the poor condition of the often poorly constructed tenements, redevelopment was costly and required resources beyond the means of many neighborhood landlords. Major property owners (such as Martin Baumrind and Peter Jakobson) and real estate developers (such as Harry

Skydell with Hudson Park Management) took the lead in this expensive redevelopment. Developers were able to avail themselves of capital from institutional lenders, which prior to 1980 was difficult because commercial lenders considered the neighborhood high-risk (Abu-Lughod, 1995).

The city became more involved with the redevelopment of the Lower East Side as speculation and property resale values rose through the 1980s. From 1978 to 1989, Mayor Koch's administration pursued a development strategy that favored large corporations and developers by relying on loan and tax-incentive programs (such as the J-51 Program), and by providing developers direct access to city planning officials with little to no public involvement (Abu-Lughod, 1995).^{29, 30} The city provided support to building owners in the Lower East Side in the form of tax breaks to offset redevelopment and building improvement costs. However, many small private owners were not able to take advantage of the government assistance because the incentives were often granted after construction started so funding was not available for upfront costs such as licensing, architectural drawings, and adherence to building code requirements (Abu-Lughod, 1995).

The sporadic waves of reinvestment in the Lower East Side during the 1980s and 1990s created uneven development patterns, which were due to city and state regulations, city ownership, and public activism. For example, New York State rent control and

²⁹ Because of access that large city developers were given to city officials, it is reported that there was a large development plan for the Lower East Side, which was worked out between the city and developer Samuel J. LeFrak and only became public knowledge after a city council representative overheard about it (Abu-Lughod, 1995).

³⁰ The J-51 Program was offered to property owners through the NYC Department of Housing Preservation and Development and the NYC Department of Finance. The Program encouraged the renovation of residential apartment buildings by giving partial property tax exemptions and abatement benefits.

renewable lease laws protected the homes of many residents in the neighborhood, which prohibited redevelopment.³¹ Also, a disproportionately high number of city-owned properties in the neighborhood delayed reinvestment because the abandoned properties and large public housing complexes created unattractive environments for investors.³² Eventually, as the housing market began to show profit-making opportunity, the city sold land to developers. The city also transferred properties to its Department of Housing Preservation and Development, which in 1982 privatized some land under an Artists' Home Ownership Program to help artists fight abandonment (Abu-Lughod, 1995). The creative community also helped to change the general public's perception of the Lower East Side: from an area of urban disrepair to trendy, up and coming neighborhood. This more positive neighborhood image helped to stimulate further change (Sorkin, 1992).

IV.2.2 Economic and Social Impacts

The redevelopment and change experienced in the Lower East Side has not produced as dramatic or as positive results as the development of Battery Park City. The existence of the Lower East Side's large low-income residential population located in a prime lower Manhattan location created disputes between real estate developers and affordable housing proponents. U.S. Census Data, as well as a study conducted by the city, indicate that real estate significantly appreciated during periods of change, which

³¹ Two renewable tenant bills renewed in 1991 governed the regulation of rents on apartments in New York City: the Emergency Tenant Protection Act of 1974 and the Rent Stabilization Law of 1969. Efforts from housing proponents and general popular pressure protected the two bills; however the trend is for a greater number of apartments to be decontrolled and destabilized with time (Abu-Lughod, 1995).

³² Two contributors to the city's large property holdings in the Lower East Side were the widespread owner abandonment through tax arrears in the 1970s when the city took control of abandoned and occupied properties, and the New York City Housing Authority management of a large number of public housing units (Abu-Lughod, 1995).

positively impacts landlords and negatively impacts renters. Also, scholars concluded that increased commercialism in the form of lending agencies and retail chains entered the neighborhood, while the existing garment industry suffered from increased rents. There is additional evidence that existing residents have experienced displacement pressures, as the neighborhood's poverty level continues to decline. The diverse racial makeup of the residents and the defining architectural characteristic of the neighborhood, its 4- to 6-story tenement style buildings, so far, remain intact.

Periods of change in the Lower East Side have led to increased property values, which can cause displacement pressures and increased home sales. Based on sales activity in the Lower East Side between 1968 and 1984, the appreciation in home value was 254.3 percent. In particular, the significant period in appreciation was after 1978, when the appreciation value was 146.4 percent (DeGiovanni, 1987). According to low-income housing advocates and critics of gentrification, the city stimulated rising rents and home values through its J-51 Program (which included between 10,000 and 15,000 units of Lower East Side housing), and did not protect low-rent housing in 1983 when the state legislature allowed certain districts to be excluded from the J-51 eligibility (Abu-Lughod, 1995). Data from the 1990 and 2010 U.S. Census Bureau indicated that median home values north of Houston Street (called the East Village) rose by 31.2 percent, which is substantially less than the 75.5 percent rise of the median home value for all of Manhattan (Table 4).³³ These data indicate that housing units in the past two decades have not rose as quickly in the Lower East Side as they did in all of Manhattan.

³³ Sufficient data for the 1990 median housing value south of Houston Street was not able to be obtained, but 2010 Census Data indicates the area south of Houston Street had a \$559,400 median house value.

Table 4. *Comparison of Median Home Values in Manhattan (1990-2010)*

<i>District</i>	<i>1990</i>	<i>2010</i>	<i>Percent Change</i>
Manhattan	\$470,700	\$825,900	75.5
Battery Park City	\$500,001	\$889,005	77.8
The East Village	\$500,001	\$655,900	31.2

(U.S. Census Bureau, 2010)

As real estate speculation and resale values rose through the 1980s, the city reassessed property values and property taxes were increased (Mele, 1995). The higher taxes priced many small businesses out of the neighborhood and increased the number of retail chains and commercial establishments. Historically the garment industry was a major economic contributor to the neighborhood, but due to rising rents and lack of industrial space from loft conversions, the garment contractors now existed at a smaller scale and continued to face challenges to remain in the area (Lin, 1995).

The large property owners and landlords began converting properties to condominiums and cooperatives through a process called “warehousing” where many of the neighborhood’s low-income renters were bought off or evicted (Abu-Lughod, 1995).³⁴ As a result of such practices, the New York City Department of Research, Policy and Program Development issued a study in 1987 to determine whether there were substantial pressures for displacement that affected residents of all income and

³⁴ Warehousing is a process where an investor builds up a holding of shares in an attempt to take it over in the future. A study of warehousing conducted in 1985 by the New York State Attorney General’s Office found that a significant number of unoccupied housing units were being kept off the market for the purpose of condominium and cooperative conversion. Experts on homelessness contend that the warehousing of vacant apartments in New York City greatly contributed to the increase in the number of homeless, especially homeless families (Abu-Lughod, 1995).

educational level in the Lower East Side. The study found substantial pressures for displacement existed among residents with pressures including:

- More than one half of the households paid 30 percent or more of their income for rent in 1984;
- A substantial proportion of the respondents indicated that their buildings have experienced maintenance problems. Examination of the relationship between building deterioration and property transactions suggests very strongly that deterioration may be an integral part of the reinvestment process in the Lower East Side;
- Twelve percent of the respondents reported that fires of suspicious origins had occurred in their buildings;
- Nearly 16 percent of the respondents indicated that their landlord was purposefully keeping vacant apartments off the market;
- Approximately 29 percent of the households interviewed reported the existence of a combination of building problems and owner or managing agent behavior that suggest very strongly that owners or their agents have recently harassed tenants in an attempt to force them from their residences. Possible harassment also appears to be part of the reinvestment process, since the existence of this problem is linked to property turnover. (DeGiovanni, 1987, p. vi-viii)

While New York City's population living in poverty has remained at between 20 and 21 percent over the past thirty years, the level of poverty in the Lower East Side (as seen in Table 5) has continuously dropped (and the census tracts without public housing

contain a poverty level equal to the city's level for 2010 Census Data). 0 illustrates the drop in poverty in the Lower East Side from 32.8 percent of the population in 1980 to 23.9 percent in 2010. According to the 2010 Census Data, the average poverty level in the Lower East Side excluding the public housing is 20.4 percent, which is a 6.4 percent decrease since 1990.

Table 5. *Lower East Side (excluding public housing) Economic and Demographic Data (1980-2010)*

<i>Subject</i>	<i>1980</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>	<i>Percent Change (1980-2010)</i>	<i>Percent Change (1990-2010)</i>
Households	36,012	38,278	41,766	43,704	21.4%	14.2%
Housing Units	--	40,596	43,641	46,423		14.4%
Median Home Value	--	425,000	--	631,750		48.6%
Vacant Units	--	2,297	1,875	2,719		18.4%
Vacancy Rate	--	5.7%	4.3%	5.9%		0.2%
Percent Living in Poverty	--	26.8%	24.5%	20.4%		-6.4%
Female Head-of-Households with Children (FHHC)	--	2,424	1,952	1,559		-35.7%
Percent of FHHC	--	6.3%	4.7%	3.6%		-2.8%
Nonfamily Households	--	21,294	25,618	28,231		32.6%
Percent Nonfamily Households	--	55.6%	61.3%	64.6%		9.0%
Renter Occupancy	--	34,914	36,014	36,681		5.1%
Percent Renter Occupancy	--	86.0%	82.5%	79.0%		-7.0%

Note. A dash indicates that data was not obtained or reported. (CDC, 1990); (U.S. Census Bureau, 2010)

Note. New York City data for 1990 and 2000 was not obtained so no line is indicated.

Figure 17. *Neighborhood Poverty over Time (1980-2010)*

(CDC, 1990); (U.S. Census Bureau, 2010)

Even with the massive public housing projects in the Lower East Side, which housed approximately one-third of the neighborhood's population, the percentage of residents living in poverty decreased since the 1980s while the neighborhood's population increased and maintained a diverse racial population (Figure 12). Figure 18 shows the change in population by area (north of Houston, south of Houston, and public housing) for Lower East Side compared to Manhattan. Despite the reinvestment in the neighborhood since the 1990s, the Lower East Side still has not recovered from the 17.9 percent drop in population between 1970 and 1980, which indicates the problem of residential overcrowding prior to 1970 has probably lessened. The change in population for the Lower East Side between 1970 and 2010 was only 2.0 percent, but between 1990 and 2010 the population change was 6.1 percent with the population north of Houston (known as the East Village) steadily increasing.

Figure 18. *Lower East Side Population Change over Time (1970-2010)*

(DeGiovanni, 1987); (CDC, 1990);(U.S. Census Bureau, 2010)

IV.3. Williamsburg

Williamsburg is a neighborhood in the borough of Brooklyn that lies directly across the East River from the Lower East Side. Williamsburg and the adjacent neighborhood of Greenpoint create the northwest corner of Brooklyn (Figure 19). Williamsburg is well connected to lower Manhattan by the L subway line and the Williamsburg Bridge.

Figure 19. *Location of Area of Study in Williamsburg*

Historically, Williamsburg has contained a range of zoning districts as shown in: residential, industrial, and mixed residential-industrial-commercial (Figure 20). The land use is also mixed with the waterfront primarily used for manufacturing and residential existing about two blocks from the East River (Figure 21). In 2005, the city rezoned a section of Greenpoint and Williamsburg west of the Brooklyn-Queens Expressway to permit additional residential and commercial development in areas zoned manufacturing. The part of Williamsburg that was rezoned is the area of study referred to here as Western Williamsburg. As of 2010, Western Williamsburg had a population of 26,069 with 11,812 households and 14,244 housing units (U.S. Census Bureau, 2010).

Figure 20. Existing Zoning Prior to Greenpoint-Williamsburg 2005 Rezoning (2003)
(City of New York, 2012)

Figure 21. *Williamsburg Land Use (2004)*

(City of New York, 2012)

IV.3.1 History of Reinvestment

The northwestern part of Brooklyn was originally settled by farmers, but by the mid-19th century Williamsburg was a center for New York City industry and shipping (Wolf-Powers, 2005). From 1840 to 1850 the neighborhood's population increased from 5,094 to 30,780 as Williamsburg became a popular suburb for industrialists and professionals primarily of European decent (Jackson, 2010).³⁵ When the Williamsburg Bridge was completed in 1903 linking the neighborhood to lower Manhattan, large factories moved into Williamsburg and tens of thousands of working-class Eastern European immigrants took residence in nearby tenement buildings to work in the newly established factories (Wolf-Powers, 2005).

As the number of tenement homes increased in the neighborhood, wealthier residents moved out of their brownstone homes and, by 1917, Williamsburg was home to some of the most densely populated blocks in New York City (Marwell, 2007). Williamsburg's population peaked in 1920 at 260,000, which was a 147.6 percent increase from the 1900 population of 105,000 (Jackson, 2010). The loss of the wealthier residents combined with the economic impact of the Great Depression through the 1930s bankrupted many early Williamsburg businesses and the neighborhood evolved into a low-income manufacturing district (Marwell, 2007).

After World War II, Hasidic Jews settled in Williamsburg, followed by the 1950s migration of Puerto Ricans. At the same time, Brooklyn reached its peak as a manufacturing center with over a quarter of a million people working in places of

³⁵ During the 1800s Brooklyn was an independent city and considered a suburb of New York City until it was annexed by the city and became a borough on January 1, 1898 (Jackson, 2010).

employment along the waterfront, including mills, breweries, garment factories, and shipyards (Marwell, 2007). In 1957, the construction of the Brooklyn-Queens Expressway bisected the neighborhood, and by 1966 the height of Brooklyn's manufacturing period ended when the Brooklyn Navy Yards, located immediately south of Williamsburg, closed (Jackson, 2010).³⁶

The neighborhood went through a period of disinvestment in the 1970s and 1980s with the decline of the maritime and manufacturing sectors, but remained heavily industrial through the 1980s. In recognition of the neighborhood's mixed-use character, the city established two special districts in the 1970s: Special Northside Mixed Use District (N) and Special Franklin Street Mixed Use District (FR) (The City of New York, 2012).³⁷ The city's intent in creating two zoning districts was to protect the neighborhood's residential and industrial areas by requiring special permits for any nonconforming use.³⁸ Since 1975, industrial use has become nearly nonexistent in the FR district and new residential apartment buildings have developed (The City of New York, 2012).

Artists and musicians from the East Village began moving to Williamsburg in the 1980s and early 1990s as rents increased in Manhattan (Jackson, 2010). According to a study of displacement in New York City conducted by Kathe Newman and Elvin Wyly

³⁶ The closing of the Brooklyn Navy Yards was significant to the adjacent neighborhood of Williamsburg, because during World War II it was the largest naval construction facility in the United States. By 1944, more the 71,000 men and women worked in shifts around the clock to build aircraft carriers and auxiliary vessels, but by 1965 fewer than 7,000 people worked at the shipyard (Jackson, 2010).

³⁷ Zone N and FR appear in the Greenpoint-Williamsburg zoning map shown in Figure 20.

³⁸ Zone N had two sections, one that was primarily residential and one that was primarily industrial. Zone FR was primarily a residential zone. With a special permit industrial was allowed to build in residential (and vice versa) in these two mixed-use zones.

(2006), between 1989 and 2002, more than 15 percent of all residential renters moving into Greenpoint-Williamsburg were previously displaced from their original homes. Many of the new residents found Williamsburg attractive because of the neighborhood's transportation links into lower Manhattan (Wolf-Powers, 2005).

As the city's economy emerged from recession in the mid-1990s, the changing real estate market, combined with an increase in residential interest, created less favorable conditions for industrial uses (Wolf-Powers, 2005). Residential development proceeded near the waterfront and the U.S. Superfund contributed to a cleanup of industrial pollution near the river (Jackson, 2010).³⁹ In the late 1990s, Mayor Rudy Giuliani's administration worked to create a large-scale housing and redevelopment agreement to satisfy the growing demands of the neighborhood's expanding Latino and Hasidic Jew communities. With the help of social activist groups and NYC Community Board 1, the city agreed to build residences in the Latino section of the neighborhood (Southside and East Williamsburg), and to provide zoning changes in the area adjacent to the Hasidic families in southernmost Williamsburg. The zoning changes allowed owners and developers to convert industrial buildings to residential condominiums (Marwell, 2007).

By the end of the 20th century, development interest to convert large industrial buildings into residential lofts and utilize manufacturing zoned waterfront property for residential condominiums had grown, and more residential properties began to develop in

³⁹ Despite the continued interest of residential development along Williamsburg's waterfront and some cleanup supported by the U.S. Superfund (which was a 1980 federal law enacted to cleanup sites contaminated with hazardous substances), waste transfers stations still existed along the river including one that handled radioactive materials.

Williamsburg. For example, in 1999 the vacant brewery of Schaefer Brewing Company, which had become the property of New York City, was turned into residential apartments (Figure 22). The first units in a mixed-income development, called Schaefer Landing, opened for occupancy in 2004. The mixed-use development consisted of two high-rise towers containing 210 luxury condominiums, 140 affordable rental units, and 10,000 square feet of commercial space (L+M Development Partners Inc., 2008).⁴⁰ The city and state paid \$6.7 million for the environmental cleanup of the Schaefer Landing site and provided the developers with \$38 million in tax credits and development incentives (Hammett & Hammett, 2007).

F. & M. Schaefer Brewing Company (1948)

Schaefer Landing (present)

Figure 22. *Williamsburg Waterfront Development*

Photo at left from Library of Congress (Colorants History, 2011); photo at right from L+M Development (L+M Development Partners Inc., 2008)

⁴⁰ Schaefer Landing consists of two buildings and contains a total of 350 apartments, 40 percent of which are considered affordable. The tenants for the low-income affordable units were chosen by lottery with at least half being rented to existing residents of Williamsburg earning less than 60% of the census district's median income.

Although the development of residential units in industrial zones was prohibited under the city's zoning code, developers acquired industrial property in the 1990s and 2000s at prices more aligned with residential property values, hoping to convert the property through the city's variance process (Wolf-Powers, 2005). Property owners who converted legally prior to rezoning applied through a mayor-appointed board called the Board of Standards and Appeals (BSA). The BSA granted 80 residential variances in industrially zoned areas of Williamsburg and Greenpoint between 1995 and 2002, according to a count by NYC Community Board 1 (Hammett & Hammett, 2007).

With a growing economy in the late 1990s that provided developers with greater access to development capital, escalating rents in nearby Manhattan made Brooklyn more appealing to middle-income residents, and Williamsburg experienced a spike in demand for property that could be developed as housing for middle- and upper-class professionals (Wolf-Powers, 2005). By the turn of the 21st century, neighborhood redevelopment was evident in Williamsburg by the social and physical change in environment that occurred due to residential and business displacement from lease buyouts and refusals, zoning changes, and increasing rents (Curran, 2007). Subsequently, in the summer of 2003, the New York City Department of City Planning contributed to the neighborhood's redevelopment trend when it publicly announced the city's plans to rezone western Greenpoint and Williamsburg near the East River (Wolf-Powers, 2005).

The city's rezoning plan (adopted in 2005) reclassified some manufacturing-zoned industrial areas along the abandoned waterfront as residential, which allowed for the development of high-rise apartment buildings that included affordable units (Figure 23) (Jackson, 2010). In upland areas (areas not along the waterfront) formerly zoned as

industrial or mixed use, the city adopted a modified mixed-use zone called MX (Wolf-Powers, 2005).⁴¹ The 45 blocks of MX permitted both residential and light manufacturing uses, which the city claimed would preserve industry. The MX zone replaced a special purpose district that previously required property currently used for manufacturing to stay as manufacturing despite ownership changes (Hammett & Hammett, 2007).

Figure 23. Greenpoint-Williamsburg Rezoning (2005)

(New York City, 2012)

The city's 2005 rezoning plan also provided for neighborhood parks and a waterfront esplanade as part of a waterfront access plan. Since the 2005 rezoning, the

⁴¹ The MX zone was the city's attempt to maintain the neighborhood's mixed-use character, which is a stated goal of the community board. According to urban planner Laura Wolf-Powers (2005), the MX zone is more accurately seen as a transitional area that industrial users gradually cannot afford.

waterfront in Williamsburg has increasingly been transformed into a residential area with significant public access to the East River (Hammett & Hammett, 2007). In June 2007, the National Trust for Historic Preservation named Brooklyn's industrial waterfront an endangered historic district as a result of the number of industrial buildings that had been demolished for residential redevelopment (Jackson, 2010).

IV.3.2 Catalysts of Change

Brooklyn's manufacturing decline and nearby Manhattan's escalating rents influenced Williamsburg's redevelopment beginning in the late 20th century. The first catalysts of change were the pioneering residents that infiltrated the traditionally industrial and mixed-use areas because of lower housing costs and the neighborhood's proximity to lower Manhattan. Realizing the potential of New York City waterfront views, access to transportation options, and abandoned industrial buildings, real estate speculators and developers contributed to the reinvestment of the neighborhood. As community groups (such as Los Sures, El Puente, and the Fair Housing Committee) and developers applied pressures to rezone non-residential properties, the city got more involved with the redevelopment process and contributed significantly to the neighborhood's change in the 21st century.⁴²

During the 1980s and 1990s, the migration of the creative population (artists, musicians, and writers) from Manhattan to Brooklyn created an interest in Williamsburg and provided developers assurance that residential construction would have a market (Zukin, 2010). Trends in U.S. Census Data indicate a 31.7 percent increase in residents

⁴² Los Sures is a community-based non-profit organization that supports community leadership. El Puente is a Brooklyn-based community initiative founded in 1982 to support diverse people.

living west of the Brooklyn-Queens Expressway from 19,800 in 1990 to 26,069 in 2010 (Figure 24).⁴³ During this 20-year span, Manhattan had increased in population by 6.6 percent and Brooklyn by 8.9 percent, both substantially lower than the increases that occurred in Western Williamsburg.

Figure 24. *Western Williamsburg Population by Race (1990-2010)*
(CDC, 1990); (U.S. Census Bureau, 2010)

The possibility of zoning variances led to a speculative market in Williamsburg's industrial areas because unused manufacturing space could be converted to residential use if it had not been used for manufacturing for three years (Curran, 2007). Similar to the Lower East Side, landlords paid pre-existing industrial tenants to relocate and kept buildings vacant so properties could be redeveloped (Traster, 2003). Property owners also discouraged industrial tenants from remaining in the neighborhood's loft buildings

⁴³ 1990, 2000, and 2010 Census Data were captured for census tracts located in Williamsburg west of the Brooklyn-Queens Expressway and north of the Williamsburg Bridge. These tracts were chosen because they fall within the area that was affected by the city's 2005 rezoning. The nine census tracts include: 515, 517, 519, 523, 549, 551, 553, 555, and 557.

because the value of the space for industrial use did not compare to the potential value as high-end residential and retail (Wolf-Powers, 2005).⁴⁴ Hence, the real estate speculators, property owners, and developers played a role in shaping the use of Williamsburg's waterfront.

City planners enabled the real estate speculation market by providing variances and rezoning in the neighborhood (Wolf-Powers, 2005). In New York City, developers and property owners can apply to change designated development standards through one of two ways: a one-time variance or a permanent change to the city's Zoning Resolution (Marwell, 2007).⁴⁵ For Williamsburg, the city utilized both of these policy methods with the most significant effort being the 2005 rezoning of nearly 200 blocks along the waterfront of Williamsburg and neighboring Greenpoint (Marwell, 2007).⁴⁶ The city's participation in the rezoning efforts of Williamsburg's waterfront facilitated the development that continues today.

IV.3.3 Economic and Social Impacts

The redevelopment of Williamsburg's waterfront has altered the neighborhood's economy by eliminating industrial jobs and increasing real estate values. The actions of

⁴⁴ To discourage industrial tenants, land provided month-to-month leases and raised rents. As the industrial tenants vacated, property owners did not attempt to rent the space for industrial use but kept it off the market in anticipation of selling to residential developers.

⁴⁵ Development standards refer to the allowable land use, building height, and building density for property in New York City, which is regulated by the city's Zoning Resolution.

⁴⁶ Although both the variance and rezoning processes require multiple steps for approval, the rezoning requires a significant effort from both the city and public to be adopted. A variance requires an application to the local Community Board. An application to change the Zoning Resolution must pass through the City's arduous Uniform Land Use Review Procedure (ULURP). The Zoning Resolution process entails four distinct levels of approval, with public hearings at each step (Marwell, 2007).

the city and property owners, combined with market demands, contributed to a loss of the neighborhood's industry while increasing the number of residential units and the median home value. A socio-economic impact was the decreased rate of poverty in the area, which may or may not have been the result of residential displacement. The neighborhood's social characteristics were impacted through an increased population density and change in racial composition.

With increased real estate interest and residential demand, the industrial presence in Williamsburg was threatened. According to the manager of the East Williamsburg Industrial Park, more than 500,000 square feet of space within the industrial park had been illegally converted to housing prior to the city's 2005 rezoning (Wolf-Powers, 2005). This is an example of industrial space that was no longer available to manufacturing tenants. With the 2005 rezoning, the city did not eliminate industrial uses from the neighborhood, but expanded the opportunities for residential development. From a study on industrial displacement in Williamsburg, Curran (2007) found that manufacturers were the most affected by the reinvestment in the neighborhood as many of them were unable to renew their leases or sold their properties to make a profit. From the displaced manufacturers, Curran (2007) determined that garment businesses were the most numerous losses, and a large number of food manufacturers had been displaced despite the city's expanding food service industry.⁴⁷ The loss of urban manufacturing centers can have a negative impact on the local economy because industrial-related jobs

⁴⁷ In Curran's (2007) study of industrial displacement, 21 out of the 29 manufacturers that were identified as leaving Williamsburg had staid within Brooklyn, which indicated a desire to stay within the city. The larger businesses typically went to New Jersey where rents were cheaper and facilities were larger. All but four manufacturers relocated within the city and eight stayed in Williamsburg by finding space along its borders.

provide employment for a less educated and largely immigrant workforce, one that still exists in Brooklyn today (Curran, 2007).

Although there were incentives for developers to include low- and middle-income housing in the rezoned areas of Williamsburg (Figure 25), this inclusion was not a requirement by the city (City of New York, 2012).⁴⁸ Low-income families in the neighborhood, especially in the Latino community, were affected by the rising rents and prices of the changing neighborhood (Marwell, 2007). According to U.S. Census Data (as seen in Table 6), the Latino population declined by 28.9 percent from 12,093 in 1990 to 8,595 by 2010. During the same period, the white, non-Hispanic population increased by 129.5 percent from 6,373 in 1990 to 14,629 by 2010, an indication of gentrification. Median home values in the neighborhood rose by 325.9 percent from \$150,000 in 1990 to \$638,900 by 2010 compared to Brooklyn's 191.2 percent rise from \$194,600 in 1990 to \$566,700 by 2010 that indicates Western Williamsburg had a greater increase in real estate values than other neighborhoods in Brooklyn (U.S. Census Bureau, 2010).

The demographic composition of the neighborhood has experienced significant change since the 1990s (Table 6). The percent poverty among Western Williamsburg residents is down 8.8 percent to 19.9% and the percentage of female head-of-households with children dropped by 10.8 percent to 4.1 percent. The percentage of renter occupancy also declined from 82.2 percent to 67.8 percent that indicates more homebuyers are

⁴⁸ As part of the adopted Greenpoint-Williamsburg 2005 rezoning, the Commission and the City Council included an Inclusionary Housing program, which reflected recommendations made during the public review process. The program promoted affordable units in both rental and condominium developments, encouraged preservation of existing affordable units, and targeted affordable housing for a range of income levels. Developers were provided floor area ratio (FAR) bonuses along waterfront properties when affordable housing was incorporated (New York City, 2012).

entering the neighborhood (probably as a result of the newly built condominium units).

With shifting populations, increasing housing units, and changing uses, the neighborhood of Williamsburg is likely to continue to experience substantial change.

Table 6. *Western Williamsburg Economic and Demographic Data (1990-2010)*

<i>Subject</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>	<i>Percent Change (1990-2010)</i>
Households	7,310	8,869	11,812	61.6%
Housing Units	7,734	9,301	14,244	84.2%
Median Home Value	150,000	--	638,900	325.9%
Vacant Units	566	432	2,432	329.7%
Vacancy Rate	7.3%	4.6%	17.1%	9.8%
Percent Living in Poverty	28.7%	21.2%	19.9%	-8.8%
Female Head-of-Households with Children (FHHC)	1,091	767	484	-55.6%
Percent of FHHC	14.9%	8.6%	4.1%	-10.8%
Nonfamily Households	2,587	4,493	7,314	182.7%
Percent Nonfamily Households	35.4%	50.7%	61.9%	26.5%
Renter Occupancy	6,355	7,941	9,664	52.1%
Percent Renter Occupancy	88.9%	90.4%	81.8%	-7.1%

Note. A dash indicates that data was not obtained. (CDC, 1990); (U.S. Census Bureau, 2010)

Figure 25. *Inclusionary Housing Designated Areas in New York City*
(City of New York, 2012)

V. THE CASE OF RED HOOK

Red Hook is a waterfront neighborhood located in the southern part of the original city of Brooklyn at the tip of a peninsula between Buttermilk Channel and the Gowanus Canal in the New York Harbor.⁴⁹ The peninsula was settled by the Dutch in the 1600s and was called Roode Hoek (Red Point) for the reddish color of the soil and the shape of the peninsula (Whyte, Gody, Harvey, & Reed, 1982). Red Hook once referred to the entire peninsula (including what is now known as the neighborhood of Carroll Gardens), but today it is used to describe the lower half of the peninsula (Figure 26) cut off from the rest of the borough by two major highways (Kasinitz & Rosenberg, 1996). Similar to the other neighborhoods in this study, Red Hook is a waterfront neighborhood with direct access to lower Manhattan (through the Brooklyn Battery Tunnel, which is just over one mile long).

Figure 26. *Red Hook Location in New York City*

Another characteristic of Red Hook shared with the three case study neighborhoods is that it is a mixed use neighborhood, with multiple zoning districts including lower density residential, medium and higher density residential, mixed use,

⁴⁹ Buttermilk Channel is the mile-long tidal straight between Brooklyn and Governors Island. One legend has it that when the area of South Brooklyn was farmland, dairy farmers would cross the channel by boat to sell their milk in Manhattan markets and the tidal currents were strong enough to churn the milk into butter.

manufacturing, and park. As shown in Figure 27, the city identified eleven primary land uses in the neighborhood (including vacant land and parking), which indicates room for additional development (The City of New York, 2012). The eleven land uses illustrate the neighborhood's diverse use of property and a history of nonconforming uses with the city's current Zoning Resolution, as it has evolved from an active manufacturing port into an area with commercial big-box retailers.

Figure 27. *Red Hook Zoning and Land Use*
(The City of New York, 2012)

Once one of the busiest shipping centers in the nation, the neighborhood was home to dockworkers and their families who lived in tenements, row houses, brick townhouses, and a 39-acre public housing complex called the Red Hook Houses (Figure 28) (Jackson, 2010). As recent as the mid-20th century, Red Hook was a busy neighborhood with wharfs, warehouses, and homes containing families of both European decent and Brooklyn's first Puerto Rican enclave; all of which depended on the waterfront industries (Kasinitz, 2000).

Figure 28. *Examples of Structures and Culture in Red Hook*

(The O'Connell Organization); Photo of Red Hook Houses taken by Chris Curen (Rsguskind, 2007)

According to U.S. Census Data as shown in Figure 29 and Figure 30, the 2010 population of Red Hook was 10,228 with 68 percent of the residents living in the neighborhood's large public housing complex called the Red Hook Houses. The majority of the residents in 2010 were primarily black and/or Hispanic with an equal distribution of 42.7 percent Hispanic and 42.5 percent black. The housing type and location varied drastically by race. The Hispanic population was split between the public and private houses, while the black population primarily lived within the public housing complex. And the neighborhood's 17.0 percent white non-Hispanic minority population lived almost exclusively in private homes near the waterfront.

Figure 29. *Red Hook Population by Race (1990-2010)*

(U.S. Census Bureau, 2010)

Figure 30. *Red Hook Population by Race and Housing Type (1990-2010)*
(U.S. Census Bureau, 2010)

Red Hook has long been regarded as a tough, lower-working class neighborhood with a largely poor population living in public housing and tenements. The rampant presence of drugs and crime in the neighborhood since the 1980s has been widely reported in the media, including a nine-page article in *Life* magazine published in July 1988 entitled “Crack: Downfall of a Neighborhood” (Jackson, 2010). This negative portrayal contributed to neighborhood disinvestment (Kasinitz, 2000). Until the murder of elementary school principal Patrick Daly in December 1992 (who was caught in a drug-related gun crossfire while searching for a student in the Red Hook Houses), many

residents of New York City and the surrounding neighborhoods were hardly aware of Red Hook's existence (Kasinitz & Hillyard, 1995). With reinvestment efforts from the community, city, and commercial service providers, the neighborhood has shown some signs of redevelopment since the 1990s (Sternbergh, 2007). An analysis of current zoning, planning policies, and demographics in Red Hook and a comparison to the social and economic impacts examined in the three case study neighborhoods will inform the discussion of how future development changes may generate the most positive outcomes for the neighborhood.

V.1. Catalysts of Change

From the study of redevelopment and gentrification in Battery Park City, the Lower East Side, and Williamsburg, four common catalysts of change were identified:

- (1) Property owners and residents (existing and incoming);
- (2) Community groups and development agencies;
- (3) Real estate speculators and developers; and
- (4) The City and its agencies (Figure 31).

These catalysts are similar to key contributors of early neighborhood renewal found by Clay (1979), and need to be supported by larger economic trends, such as a strong national economy and available financial lending resources, to provoke neighborhood redevelopment.⁵⁰

⁵⁰ In a study of urban renewal, Clay identified the key actors as developers, realtors, local government, financial institutions, and neighborhood organizations.

Figure 31. *Catalysts of Change affecting Neighborhood Redevelopment*

In case study examples, the property owners first show a sign of property disinvestment through abandonment or tax arrears before a trend of reinvestment where property owners sell properties for a profit or convert buildings into luxury residential units. The pattern of the residents as catalysts of change begins with the immigrants who settled in the depressed neighborhoods because of manufacturing jobs and low rents, then evolves with an influx of the creative class (artists, musicians, and designers), and eventually is replaced by the upper-middle class or the gentrifiers. Community groups are social activists and minority groups, Community Boards, and formalized development agencies such as the Downtown-Lower Manhattan Association. Real estate developers emerge with speculation, lending opportunities, strong economies and rezoning that allows large development. The city has ultimate control of development, planning, and zoning. Based on information gathered through the case study neighborhoods, all four catalysts will likely affect future redevelopment in Red Hook, however the level of involvement and the timing of each catalyst's contribution are still to be determined.

According to an April 6, 2007 posting on a Brooklyn real estate blog, a New York City real estate news provider, *The Real Deal*, reported that Red Hook had not

experienced redevelopment because there was not much viable real estate to buy but identified the four catalysts that could influence future change:

Despite hype about the neighborhood being oh-so-hip, a lack of inventory is discouraging buyers. Yet brokers are still hopeful that new projects in the area may help turn the tide...But there are also several obstacles to Red Hook's renaissance. Most of the neighborhood is zoned for industrial, manufacturing, transportation and utility usage. The housing supply for buyers is low, and that won't change without modifications to zoning laws. This would require various interest groups and politicians to agree on the future composition of Red Hook -- a task that has been left unfinished for the last 20 years. (apud Rsguskind, 2007, para. 2)

This brief explanation of some of Red Hook's challenges relates to the four catalysts of future redevelopment in Red Hook; first, the article mentions *discouraged buyers* (i.e. future potential residents); followed by the *brokers' development speculations*; the role of *interest groups*; and finally, intermittently affirming the importance of zoning, which is controlled by the *city*. Sean Zielenbach (2000) found that one catalyst alone could not revitalize a neighborhood. To better understand how the four catalysts may impact redevelopment in Red Hook, each will be explored more fully in the following sections.

V.1.1 Residents

In the analyses of Battery Park City, the Lower East Side, and Williamsburg, three types of residents were identified as influencing neighborhood change. The existing property owners were the first group of residents. The creative industry renters (including

artists, designers, and musicians) were the second group to influence redevelopment by relocating to the neighborhoods and generating interest. The migration of the artistic community lead to increased investment by real estate investors and the third type of residents, which were higher-income property owners and renters.

In the Lower East Side and Williamsburg, landowners invested in their properties to attract higher rents or sold their property for a financial gain as real estate demand and prices rose. In Red Hook, a comparable catalyst is the owners of the manufacturing properties along the waterfront, owners of commercial or vacant land, and the private property owners of the nearly 1,500 existing households. If Red Hook were to follow the stages of redevelopment seen in the Lower East Side and Williamsburg, property owners would invest in their properties as real estate speculation and demands grow among future buyers and renters. Also, the initial wave of new renters would likely be individuals from the art and music community while the buyers would likely be upper-middle-class whites.

The growing presence of the art and music communities in the Lower East Side and Williamsburg generated cause for reinvestment and improved real estate speculation. Artists have played an important transitional role in the redevelopment of other New York City neighborhoods as well by acting as catalysts that attract real estate speculators and upper-middle-class whites (Kasinitz & Hillyard, 1995). In recent years, Red Hook experienced the substantial growth in artist-related development and activities, including exhibitions by the Brooklyn Waterfront Artists Coalition and 9,000 square feet of commercial workspace leased to Etsy, an online marketplace where artists and craftspeople sell their work (Garner, 2011). Not only has the population of the artist

community in Red Hook grown, but also the white population outside of public housing has increase by 97.5 percent since 1990. These trends indicate a transition toward a more racially white neighborhood, a demographic trend that, according to U.S. Census Data, also occurred in the Lower East Side and Western Williamsburg between 1990 and 2010.

V.1.2 City Agencies

The second major catalyst that is likely to impact the future of Red Hook is the city's planning and development agencies. Tom Angotti, an urban planning researcher in New York City, shared his perspective on the city's involvement with neighborhood planning, stating:

The city doesn't formally engage in 'planning.' Its policies are fragmented among many agencies and they favor private initiatives. The Department of City Planning [DCP] doesn't do plans; they use their zoning powers to facilitate new development that benefits (especially) larger developers, and protect areas that actually need little protection. ...DCP's rezoning in Williamsburg is perhaps the most dramatic example of how zoning is used to bring about change in a hot property market. (personal communication, May 7, 2012)

Rezoning not only in Williamsburg but also Battery Park City allowed for redevelopment to occur in the neighborhoods. The areas were zoned manufacturing, but with a declining industrial industry and increasing pressures by developers and residents, waterfront areas were amended by the city to permit mixed use (in keeping with Angotti's remarks). When asked what created change in Battery Park City, urban planner Lance Freeman responded that redevelopment was "the result of deliberate planning policy" (personal communication, May 22, 2012). Policy implemented by the city has

influenced development in all three case study neighborhoods and has already had some impact in Red Hook through plans put in place by the most recent administration, which is due to change in 2013 with the next mayoral election.

In March 2011, Mayor Michael Bloomberg released *Vision 2020: New York City Comprehensive Waterfront Plan*, which was the first comprehensive 10-year plan for the development of the city's 520 miles of shoreline, including areas in Red Hook (McGeehan, 2011). *Vision 2020* addressed waterfront-planning issues such as public access to New York's waterways and the use of ports and manufacturing areas. According to *Vision 2020*, a decline in industrial jobs in New York City from 1955 to 2009 was accompanied by a rise in port trade. To sustain the remaining industrial uses in New York City, the Bloomberg Administration designated 18 areas in the city as Industrial Business Zones (IBZ), including significant portions of Red Hook (Figure 32) (New York State Department of State, 2011). City planning efforts such as the waterfront access and industrial use designations may shape redevelopment in Red Hook by dictating development and land use criteria. If the city were to amend the zoning in Red Hook to Mixed Use as it did in 2002, development patterns in the neighborhood would likely change based on what occurred in Battery Park City and Williamsburg.

Percent Change in Maritime Trade and Manufacturing Jobs over Time (1955-2009)

Designated Industrial Business Zones in New York City

Figure 32. *New York City Maritime Trade and Industrial Areas*
(New York State Department of State, 2011)

V.1.3 Community Groups

The involvement of community groups in the Lower East Side and Williamsburg led to zoning amendments made by the city. In the Lower East Side, the homeless population and social activists opposed the increasing rents by staging protests and demonstrations in Tompkins Square Park. With input from activists and local community groups, the city rezoned parts of the neighborhood to protect the height, density and character of the existing residential buildings, which affected redevelopment. The involvement of the Latino and Hasidim community groups in Williamsburg led to rezoning for additional residential units, but according to Tom Angotti, “Williamsburg's own community plan was thoroughly undermined by the rezoning” (personal communication, May 7, 2012). This suggests that Red Hook may have to deal with misaligned plans and interests of community groups and city policies. In Battery Park City, David Rockefeller created the Downtown-Lower Manhattan Corporation (D-LMC), which is comprised of downtown stakeholders committed to a vibrant business community. D-LMC provided advocacy for creating the Battery Park City District (Downtown-Lower Manhattan Association, 2009). The involvement of community groups, such as D-LMC, can affect zoning changes, which dictated the future use of the neighborhood.

Based on the three case study neighborhoods, a community group will likely evolve in Red Hook to initiate policy eventually implemented by the city. The community already came together in the 1990s to create the 197-a plan and community members continue to be active through NYC Community Board 6 and the Red Hook Civic Association. Now that several commercial retail and service providers (such as

Home Depot, IKEA, Fairway, Norwegian Cruise Lines, and Pier 41) have developed in Red Hook, it is possible that a business association or economic development corporation in southwestern Brooklyn would arise to generate increased consumer awareness and economic viability in the neighborhood and to serve as a guiding force in future development.

V.1.4 Real Estate Developers

Without the influence of real estate developers, housing units and commercial space would not have increased in the three case study neighborhoods. Developers leased the land in Battery Park City to build high-rise residential apartment buildings and the World Financial Center. Though not at the same scale, the Lower East Side experienced the involvement of developers that purchased apartment buildings and property to build or convert to condominiums and coops. With the waterfront rezoning in Williamsburg, developers built high-rise mixed-use buildings along the waterfront. The growth in residential units from 1990 to 2010 is confirmed by U.S. Census Data (Table 7).

Between 1990 and 2010, the number of privately-owned housing units in Red Hook increased by 49.4% from 1,121 units to 1,675 units (U.S. Census Bureau, 2010). The increasing trend parallels that of the three case study neighborhoods and indicates the neighborhood may already be experiencing similar change. Red Hook, like some other waterfront areas along the East River and New York Harbor, contains vacant land currently zoned for manufacturing. In other waterfront neighborhoods, including Williamsburg, the land remained vacant until housing developers received approval for rezoning (Fedders, 1994). As economic conditions improve and zoning legislation

changes, developers will likely play a role in impacting the future redevelopment of Red Hook's waterfront property.

Table 7. *Red Hook (excluding public housing) Economic and Demographic Data (1990-2010)*

<i>Subject</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>	<i>Percent Change (1990-2010)</i>
Households	1,097	1,116	1,477	34.6%
Housing Units	1,121	1,302	1,675	49.4%
Median Home Value	125,800	--	486,900	287.0%
Vacant Units	105	186	198	88.6%
Vacancy Rate	9.4%	14.3%	11.8%	2.5%
Percent Living in Poverty	41.6%	20.7%	17.6%	-24.0%
Female Head-of-Households with Children (FHHC)	204	203	111	-45.6%
Percent of FHHC	18.6%	18.2%	7.5%	-11.1%
Nonfamily Households	437	435	815	86.5%
Percent Nonfamily Households	39.8%	39.0%	55.2%	15.3%
Renter Occupancy	753	864	1,197	59.0%
Percent Renter Occupancy	74.1%	77.4%	81.0%	6.9%

Note. A dash indicates that data was not obtained or reported. (U.S. Census Bureau, 2010)

The combination of the four catalysts of change has already had an impact on Red Hook. For example, a small section of manufacturing property was rezoned mixed use by the city to allow a developer and local resident to convert a warehouse into luxury rentals and commercial space. Residents and NYC Community Board 6 have also worked with the city to develop a 197-a plan to guide subsequent actions by city agencies. These are signs that Red Hook is evolving and catalysts have influenced the neighborhood like

found in the three neighborhood cases of Battery Park City, the Lower East Side, and Williamsburg.

V.2. History of Development in Red Hook

The history of Red Hook reveals a legacy of vibrant social and economic living conditions where the neighborhood continually reinvented itself with industry and cultural changes. For the first 200 years after the Dutch settled the area in 1636, Red Hook remained marshy undeveloped land until the construction of the Atlantic Basin in the 1840s (see Figure 33) (Jackson, 2010). The Atlantic Dock Company developed piers in the Atlantic Basin and railroad contractor William Beard built wharfs in Red Hook (City of New York, 2012).

Figure 33. *Red Hook Past and Present Land Use*
(City of New York, 2012)

By the 1860s, the Red Hook peninsula had become one of the most intensively developed sections of New York Harbor's waterfront where ships from all over the world were docking to receive and unload cargo, and for repair and maintenance (Jackson, 2010). The area of southern Brooklyn contained the Todd and United Shipyards, the busy State Barge Canal Terminal, and miles of railway tracks for transporting freight (Whyte

et al., 1982). Sailors from hundreds of foreign ports filled the local bars, and immigrant dockworkers and their families lived in nearby poorly constructed residences.

At the turn of the 20th century, the neighborhood was still a bustling port as one generation of immigrant workers replaced another, and the neighborhood developed a reputation of toughness and organized crime. Famous mobsters Al Capone and Joey Gallo frequented the streets of Red Hook (Kasinitz & Hillyard, 1995). Similar to Williamsburg and other ports in lower Manhattan, the basin prospered through the 1940s when it employed over 7,000 people. This changed when three major public works and housing decisions debilitated the neighborhood in the mid-20th century, causing its population to fall to nearly half (City of New York, 2012).

The Red Hook Houses and Recreation Center was the first neighborhood Urban Renewal project in Red Hook, which was supported by Mayor Fiorello LaGuardia and initially well received by the public. The project contained the largest New York City Housing Authority development in Brooklyn with low-income residences and a park that were originally built for dockworkers and their families (City of New York, 2012). The project consisted of 27 buildings (2- and 6-stories high) providing 2,562 apartments that rented for as little as \$6 per room for some 5,654 residents (Whyte et al., 1982). The 58.5 acre park opened in August 1936 to a crowd of 40,000 area residents, and the city's first high-rise public housing complex (encompassing 33.34 acres) was completed in November 1939 (City of New York, 2012). Another three buildings on a 5.63-acre site were constructed in 1955 providing public housing for an additional 864 residents (New York City, 2012).

The construction of three major transportation arterials at the now northern boundary of Red Hook during the mid-20th century composed the second major public project that contributed to the deterioration of the once vibrant neighborhood. Begun in the late 1940s and completed by 1964, the Gowanus Expressway was built under the leadership of Robert Moses (De Avila, 2010). The Brooklyn Battery Tunnel that connects vehicular traffic from lower Manhattan fed into the Gowanus Expressway which ultimately joins to the Brooklyn-Queens Expressway, completed in 1957 (Jackson, 2010). These highways cut off the neighborhood from the rest of the borough, including its access to subway stations, making it secluded and therefore an undesirable location for residents and visitors seeking easy access to Manhattan (De Avila, 2010).

The third contributing factor to disinvestment was the Port Authority of New York and New Jersey's decision in the early 1960s to move its containership terminals to a newly constructed Port in New Jersey, which left many of Brooklyn's ports unused and eventually abandoned (Abu-Lughod, 1999). This relocation of the Port to New Jersey was the end of Red Hook's significant contribution to New York Harbor's maritime industry; and container shipping (centered in New Jersey) displaced the neighborhood's chief means of employment, break-bulk shipping. After reaching 25,000 in 1960, Red Hook's population declined and stood at just over 11,000 by 1990 (Jackson, 2010).

Since the 1960s, although the wages of waterfront workers have increased, the maritime and shipping industry of the neighborhood no longer supported local residents. Deindustrialization and automation sharply decreased the numbers of employees and

longshoremen were no longer required to live near the wharves.⁵¹ Despite the neighborhood's long-standing industrial past, its residents had little relationship to the remaining waterfront industry (Kasinitz, 2000). During the 1950s and 1960s, the demographics and culture of Red Hook changed with an influx of Puerto Rican and black residents moving into the low-income residences while the neighborhood experienced housing abandonment and "white flight" (Kasinitz & Rosenberg, 1996). As in most New York City public housing projects, the population of the Red Hook Houses remained highly stable while the area outside of the public housing complexes steadily declined through the 1980s (Kasinitz, 2000).⁵² By the 1980s, the neighborhood had become desolate and poor with few employment opportunities and some 90 percent of the population was made up of minorities that were black or Hispanic. In 1985, the Todd Shipyards closed down, which had provided employment opportunities since the 1860s and contained one of the largest graving docks in the country (Jackson, 2010).⁵³ The closure further limited local employment opportunities in the neighborhood.

Gunfire became a common occurrence in the neighborhood in the 1990s and was a constant concern for residents living in public housing (Kasinitz, 2000). In December 1992, Patrick Daly, a local elementary principal, was killed as he walked into the

⁵¹ Since the city's 1954 reforms of the Waterfront Commission of New York Harbor and the federal government's 1966 legislation for a guaranteed annual income, longshoremen are no longer typically local residents and the jobs are highly prized and filled by union members.

⁵² The average tenancy for New York City Housing Authority projects is 15.2 and in 1990 the mean length of tenancy for the Red Hook Houses was just slightly under 16 years.

⁵³ A graving dock, also known as a dry dock, is a basin that can be flooded and drained for the construction, maintenance, and repair of ships and watercraft. The Todd Shipyard graving dock in Red Hook had historical significance and a replacement value of roughly a billion dollars. It became a public controversy in the 2000s when the city approved a plan that allowed furniture retailer IKEA to fill in the graving dock for a 1,400 car parking lot (The Municipal Art Society of New York, 2007).

crossfire of a dispute between teenage drug dealers on the mall of the Red Hook Houses. By gaining the attention of the city and nation, Daly's death was a significant neighborhood event because it brought community members together from various races to mourn the loss of a respected leader and publicized Red Hook's violence and crime problem (Kasinitz, 2000). Although a tragic event, Daly's death was a turning point for the neighborhood's future and forged a way for community members and the city to work together.

After Daly's death, the Red Hook community, in conjunction with NYC Community Board 6, began forming a 197-a plan entitled *Red Hook: A Plan for Community Regeneration*, which was approved and adopted by the City Planning Commission and City Council in 1996.⁵⁴ The intent of a 197-a plan is to guide future planning actions by city agencies (The City of New York, 2012). Specifically, the goal of Red Hook's 197-a plan was to create an "economically, socially, and physically integrated community" through addressing issues of housing, economic development, community facilities, transportation, open space, the waterfront, landmarks, zoning, and quality of life. Community members hoped that the 197-a plan would generate investment in the neighborhood, but a problem with the 197-a plans is that it does not guarantee neighborhood change. Philip Kasinitz worked with Community Board 6 to create Red Hook's 197-a plan. He recalls, "The great disappointment was when the

⁵⁴ Under section 197-a of the New York City Charter community boards (as well as borough boards, the Mayor, the City Planning Commission, the Department of City Planning, and borough presidents) are authorized to sponsor plans for the development, growth, and improvement of neighborhoods. The affected community board, borough president, and the City Planning Commission and City Council review the proposed 197-a plan. Once approved by the Commission and adopted by the City Council, 197-a plans are published and distributed so that they may guide subsequent actions by city agencies (The City of New York, 2012).

residents found out that a 197-a plan doesn't come with any money to do anything; it was just a plan – none of this [outlined in the 197-a plan] was actually going to happen – it was simply a plan” (personal communication, May 7, 2012). Red Hook needed more than “simply a plan” to generate redevelopment in the neighborhood.

As New York's real estate market rebounded in the 1990s and real estate speculators and developers started to look to lower-class neighborhoods that offered redevelopment opportunities (such as the Lower East Side and Williamsburg), Red Hook caught the attention of investors. Greg O'Connell, Red Hook's largest landowner, started acquiring land in Red Hook in 1982 after he realized the neighborhood contained some of the same characteristics as the gentrified neighborhood of SoHo in Lower Manhattan. In the early 1990s, O'Connell bought over 28 acres of waterfront property from the Port Authority and now holds over one million square feet of land in Red Hook (Popper, 2008).

The New York artist community began to make a presence in Red Hook in the early 1990s as the Brooklyn Waterfront Artists Coalition started showcasing art exhibits in the neighborhood and artists moved into the area in search of cheaper rents and studio space (Kasinitz, 2000). Further press highlighted property investment in Red Hook when the *New York Times* reported that a well-known real estate icon in the city, Barbara Corcoran, former president of Corcoran Real Estate, bought a three-story building on Van Brunt Street (Red Hook's main commercial corridor) in 2005. And local papers started covering stories on reasons to move to and visit Red Hook, such as its views of lower Manhattan and eating establishments that received highly rated reviews from food critics (Sternbergh, 2007).

In January of 2002, The New York City Planning Commission rezoned 3.5 blocks of Red Hook near the waterfront for a Special Mixed Use District (MX), a designation that was used to encourage investment in existing neighborhoods with mixed residential and industrial uses (Figure 34) (The City of New York, 2012). In 2006, despite opposition from some local residents, O’Connell converted an 1860’s brick warehouse into a residential-commercial mixed-use building with 150 luxury loft apartments and a Fairway supermarket, which provided more than 200 union jobs. The commercial development, made possible by the city’s zoning change, set the precedent for the development of big box retail stores in the neighborhood (Rogan, 2000). That same year, the city secured a deal with the Port Authority of New York and New Jersey to develop a \$30 million passenger-ship terminal in Red Hook servicing multiple commercial cruise lines (Crain's New York Business, 2005). Finally, the most controversial recent change in the neighborhood occurred when the New York City Planning Commission and City Council approved the redevelopment of the historic Todd Shipyard’s site into a 352,000 square foot IKEA (Figure 35) (The City of New York, 2012).⁵⁵

⁵⁵ IKEA is the world’s leading home furnishings retailer featuring Scandinavian modern style furniture and accessories, which are popular in urban and studio-sized apartments. The big box retailer’s closest location to Manhattan was Elizabeth, New Jersey until it opened its largest U.S. store in Red Hook in June 2008. The construction of the store created controversy over the disruption to the neighborhood and the destruction to one of the largest working graving yards in the New York Harbor.

Figure 34. Red Hook Zoning Map with Mixed Use Zone MX-5 (2011)
(City of New York, 2012)

Figure 35. Recent Development in Red Hook
(flickr, 2012); (Brooklyn Cruise Terminal); (Aurora Contractors, Inc.)

Despite signs of redevelopment, the neighborhood did not experience a condominium boom like that of Williamsburg in the 2000s, because much of Red Hook was still zoned for industrial activity. However, a few smaller condominium projects were developed in recent years, demonstrating a trend toward redevelopment (De Avila, 2010). Although the neighborhood has not yet experienced levels of redevelopment equal to Battery Park City or Williamsburg, scholars agree that the neighborhood has changed in the last 25 years. When asked how much the neighborhoods in question had changed, Philip Kasinitz responded, “they have all changed a lot since the 1980s; Red Hook

probably the most profoundly simply because in the 1980s Red Hook was really a very forgot place” (personal communication, May 7, 2012).

So far, redevelopment can be attributed mostly to neighborhood characteristics, including cheaper rents than surrounding neighborhoods; proximity to business districts; sense of isolation in an urban environment; attraction to industrial features such as warehouses, lofts and piers; and the views of lower Manhattan and the Statue of Liberty across the Upper New York Bay (Sternbergh, 2007). A review of the planning processes, policies, and contributors related to redevelopment in the three case study neighborhoods of Battery Park City, the Lower East Side and Williamsburg identified four common catalysts of change: residents, the city, community groups, and real estate developers. Assuming these four catalysts would influence Red Hook in a similar way, comparisons can be drawn to determine the likely future social and economic impacts of redevelopment on the neighborhood.

V.3. Economic and Social Impacts

Assuming the four catalysts will continue to create change in Red Hook, social and economic impacts similar to those found in the case study neighborhoods will likely occur. The impacts that may occur include loss of industry, increase of commercial jobs, higher property values, additional housing units, reduction of poverty, a decreased ratio of families to nonfamily residences, and a rising trend of homeowner occupancy. While Red Hook has been slow to evolve (possibly due to inadequate public transportation options and the recent economic recession) data on key neighborhood variables indicate a trajectory of change similar to Battery Park City, the Lower East Side, and Williamsburg.

The manufacturing jobs in the city have experienced a steady decline since the 1950s and Red Hook is no exception. In 1960, manufacturing accounted for 40 percent of all employment in Red Hook, but by 1990, it accounted for only 8 percent among public housing residents and 16 percent in the rest of the neighborhood (Kasinitz, 2000). Due to the efforts of the Bloomberg Administration to preserve industrial business zones in the neighborhood, Red Hook may not experience industry loss to the degree that Williamsburg did, but the city's decision to allow variances or rezoning will determine the future outcome of Red Hook's maritime waterfront. If additional areas within Red Hook are rezoned mixed use as was the strategy in Battery Park City and Williamsburg, then commercial, retail, and residential units will increase in existing manufacturing districts. The result would be displacement of existing manufacturing businesses as well as a transition from blue-collar industrial jobs. If the trend of commercial "big-business" continues in the neighborhood, John McGettrick, head of the Red Hook Civic Association, warned that the neighborhood would become a retail center filled with large parking lots (Crain's New York Business, 2005). For significant industry change to occur in Red Hook (such as manufacturing to commercial), a zoning change will likely need to occur, so the major future economic producers (beyond the big chain retailers) cannot yet be determined.

Since 1990, the number of housing units increased by 49.4 percent in Red Hook from 1,097 in 1990 to 1,477 in 2010 (Figure 36). When compared to the three case study neighborhoods, Red Hook grew at a slower rate, but surpassed Manhattan, which had a decline of 2.7 percent in total housing units from 1990 to 2010 (U.S. Census Bureau,

2010).⁵⁶ Because Red Hook contains under-developed and vacant residential property, the housing units in the neighborhood will continue to increase with investment (Sternbergh, 2007).

Figure 36. *Increase of Neighborhood Housing Units over Time (1990-2010)*
(U.S. Census Bureau, 2010)

The housing stock in Red Hook is in short supply and consists of many older rundown homes with issues such as termites and flooding basements. However, similar conditions existed in Williamsburg (Sternbergh, 2007). With increased investment and development additional housing units, residents will relocate to Red Hook and median home values will likely continue to rise. Red Hook's median home values have been increasing consistently and similar to Manhattan, yet they remain lower than the other case study neighborhoods at \$486,900 compared to the next cheapest home values in the Lower East Side at \$631,750 (Figure 37) (U.S. Census Bureau, 2010). The crime and

⁵⁶ Census tracts including large public housing complexes were excluded from the analysis, because the number of public housing units remained consistent during between 1990 and 2010. By eliminating the public housing areas, the privately owned real estate could be compared for evidence of change.

poverty that are associated with the Red Hook Houses may slow the neighborhood's growth and rising home values, but ultimately redevelopment will likely occur beyond the borders of public housing as it did in the Lower East Side and nearby Brooklyn neighborhoods such as Boerum Hill and Fort Greene (Sternbergh, 2007).

Figure 37. *Comparison of Neighborhood Median Home Values (1990 and 2010)*
(U.S. Census Bureau, 2010)

Similar to what occurred in the Lower East Side and Williamsburg, as property values increase, homeowners in Red Hook will likely sell for a profit and renters will be forced to relocate because of renovations, conversions to cooperatives or condominiums, and higher rents. Census data show that the ratio of apartment renters declined in the case study neighborhoods and in all of Manhattan from 1990 to 2010 (Figure 38). During the same time period, Red Hook experienced change in occupancy, but with an increase in renter ratio, which may be due to a migration of the artist community seeking cheaper rents outside of Manhattan. As Red Hook experiences redevelopment, the neighborhood

will experience an increase in homeowner occupancy and the renter occupancy ratio will decline.

Figure 38. *Neighborhood Renter Occupancy over Time (1990-2010)*
(U.S. Census Bureau, 2010)

The demographic trends existing in Red Hook and examined in the case study neighborhoods suggest that Red Hook's population will increase and experience change as a result of redevelopment. The demographic change among Red Hook's residents will likely be an increased presence of whites, a lower percentage of residents living in poverty, and a decrease in the ratio of family households. As shown in Figure 39, the percentage of white non-Hispanic residents in Red Hook living outside of the public housing complexes increased since 1990 at a rate similar to Williamsburg. During this time period, the percentage of the Hispanic population in Red Hook's privately owned homes decreased by 25.1 percent while increasing by 12.4 percent in the public houses. Such a substantial change in demographics might lead to racial segregation in the neighborhood, with whites becoming the majority in non-public housing.

Figure 39. *White Non-Hispanic Neighborhood Population over Time (1990-2010)*
(U.S. Census Bureau, 2010)

As of 2010, the percentage of residents living in poverty for all four neighborhoods was below Manhattan's poverty level of 24.2 percent and three neighborhoods had experienced at least a 6 percent decline since 1990 (Figure 40). The decline in the poverty rate indicates that these neighborhoods have changed to contain a higher ratio of middle- and upper-income residents. As Red Hook redevelops, it is likely that it will continue to experience a decline of poverty similar to the Lower East Side and Williamsburg through the 2000s.

Figure 40. *Neighborhood Residents Living in Poverty over Time (1990-2010)*
(U.S. Census Bureau, 2010)

In 1990, the percentage of non-family privately owned households in Red Hook was 39.8 percent, indicating that the majority of the residents lived with family members. As of 2010, the non-family residents had increased to 55.2 percent and became the majority. Similar trends were seen in the Lower East Side and Williamsburg during periods of redevelopment. While Battery Park City developed into a neighborhood that is attractive to families, the older, traditionally mixed-use family neighborhoods of Williamsburg and Red Hook appear to be seeing a decline in the number of older family households (Figure 41).

Figure 41. *Neighborhood Non-Family Households over Time (1990-2010)*
(U.S. Census Bureau, 2010)

Although there is an inherent amount of uncertainty in how Red Hook will change or be impacted in the future, the neighborhood has already experienced some substantial changes since 1990 that when compared to neighborhoods with similar characteristics helps to draw an informed prediction of the likely social and economic outcomes of additional development and change. The change in industry and demographics may result in displacement of residents and businesses as redevelopment occurs in the neighborhood, or what some scholars label as gentrification. Other negative impacts identified by scholars such as Zukin include loss of identity, destruction of character, or increased segregation. On the other hand, there may be significant positive outcomes of such change, including an increase of available jobs for local residents, the decline of neighborhood poverty, and an increase in the number of newer, more attractive residences. As Red Hook continues to develop, experts will continue to debate the socio-

economic impacts of change on a neighborhood rich in history and culture yet also struggling with crime, poverty, and urban decay.

VI. CONCLUSION

VI.1. Comparative Analysis and Findings

The manufacturing-residential waterfront neighborhood of Red Hook, Brooklyn has experienced change in the past several decades and is likely to face even more substantial change in the future as the result of redevelopment. The likelihood of additional redevelopment in Red Hook is supported by the neighborhood's proximity to redevelopment in bordering areas, where formerly working-class neighborhoods experienced considerable change (Kasinitz & Hillyard, 1995). Characteristics that support Red Hook's vulnerability to change include its central New York City location, inventory of vacant and underutilized land, and views of Downtown Manhattan, the New York Harbor and the Statue of Liberty. Despite these indications that Red Hook is a prime location for redevelopment, Red Hook also faces some potential obstacles to substantial change, not the least of which is the downturn of the nation's economy and the financial crisis of New York City's Wall Street in the late 2000s. The neighborhood may evolve differently from the case study neighborhoods of Battery Park City, the Lower East Side, and Williamsburg because Red Hook suffers from a lack of access to public transportation, seclusion from the rest of Brooklyn due to major expressways, a shortage of privately owned housing, Brooklyn's largest public housing development, and a history of industrial contamination. Nonetheless there are still trends seen from the case study neighborhoods and the study of gentrification that relate to redeveloping neighborhoods and can be applied to Red Hook.

Urban scholars and planners study neighborhood redevelopment and gentrification for varying reasons, including the social and economic impacts of change

such as displacement, segregation and fairness. The process of redevelopment can have similar impacts across different neighborhoods or can end with quite different outcomes. Urban planning scholar Tom Angotti compared the four cases of neighborhood change discussed in this thesis, stating:

Battery Park City is an entirely new neighborhood created since the 1980s. Unlike the other areas, it was planned, built with huge government subsidies, and has become an exclusive and privileged enclave. The other three neighborhoods have been working class neighborhoods for many generations and have struggled for generations without the kind of public resources that the newer, exclusive neighborhoods have received. The Lower East Side has gradually and partially gentrified since the '80s, and remains a sharply divided neighborhood in which Latino and Asian minorities are increasingly marginalized. Williamsburg was the city's classical mixed-use neighborhood that has suffered a major blow by gentrification in the last decade, displacing many Latino residents and many industries. Red Hook has changed the least, though it has gentrified at the edges and its prize waterfront has begun to get bitten off by big box stores (personal communication, May 7, 2012).

The general theme from the case study analysis of three evolving waterfront manufacturing neighborhoods near lower Manhattan is that as industrialization waned and middle-class interest in the city revived, neighborhoods experienced renewal and attracted more mixed use upscale occupants.

The concept of gentrification has existed in New York City for over half of a century, and Red Hook is a neighborhood that exhibits signs of socio-economic change

such as a recent presence of the creative class, increase of housing units, increase of the white population, and decline in poverty. These indicators of gentrification are debated among experts in urban studies and sociology, but previous research has revealed that neighborhoods in which gentrification is occurring typically experience increases in the following types of residents: college graduates, higher income people, professional or managerial workers, white people, and smaller households (DeGiovanni, 1987). This study did not measure all of these characteristics, but instead focused on race, poverty, and housing units. This research was not conducted to determine if gentrification was occurring in Red Hook, but rather to understand the common catalysts associated with gentrified neighborhoods and impacts of change associated with neighborhood redevelopment.

Since 1990, Red Hook has experienced the following shifts:

- A demographic shift in its white and Hispanic communities;
- A decrease in poverty;
- An increase in housing units;
- An increase in the ratio of household renters with the influx of artists;
- A decline in manufacturing jobs along the waterfront since the 1950s; and
- An increase in big-box retailers that with the help of variances or rezoning took advantage of large vacant lots along the waterfront.

Based on these social and economic changes as well as current zoning, planning policies and techniques, and additional demographic data, this thesis suggests that with the involvement of residents, development corporations, the city, and real estate developers,

Red Hook's manufacturing presence will slowly be replaced by upper-middle class residents and commercial jobs.

The four commonly identified catalysts of change (residents, community groups, real estate developers, and city agencies) have the power to direct Red Hook's future development, but a strong regional economy and financial lending capability are necessary components as well. This is consistent with Clay's (1979) findings with early neighborhood renewal where five key actors were identified: developers, realtors, financial institutions, neighborhood organizations, and local government. From the study of the three neighborhoods, it also became evident that a consensus between catalysts is necessary to formulate a plan that will create the best outcome for the neighborhood. Angotti explained that neighborhood planning in New York City is not done using a "top-down" approach, but rather the city's planning department uses its zoning powers to facilitate redevelopment from a "bottom-up" approach utilizing residents, development agencies, and developers to create change during hot property markets.

According to John McGettrick, local resident and chair of the Red Hook Civic Association, local residents did not want a wealthy community built on the water like in Battery Park City, but instead desired a lower-middle-class neighborhood with public access to the waterfront and a maintained industrial base (Fedders, 1994). In line with these needs of local residents, scholars recommend neighborhood redevelopment that will improve the public schools, make neighborhoods safer, and provide housing incentives designed to encourage racial and ethnic integration or attract middle-income residency (Kromer, 2000). Redevelopment in Red Hook may take a variety of forms, from a destination neighborhood in New York City with culture and tourism to an isolated,

rundown mixed-use community that evolves lot-by-lot through zoning variances and additional big-box retail stores. The various possible scenarios generate debate on the benefits and negative consequences each might create, but a wise starting point that will benefit all interested parties is for the catalysts to work together to generate change that provides a mix of jobs and residences meeting the needs of the existing and future residents.

Many development scenarios could come to fruition with the right financing, support, and leadership, but New York City's history of neighborhood redevelopment since the 1980s indicates that rezoning efforts typically allowed real estate developers to create mixed-use waterfront communities for upper-middle-class residents. As Freeman and Braconi pointed out in their study of gentrification in New York City neighborhoods, development of housing that attracts upper-middle-class residents does not always displace low-income residents and can bring social and economic benefits to a neighborhood suffering from disinvestment. In Red Hook, future development-focused policies put in place by the city and the actions of the developers should involve community members in each step of the redevelopment process so as to ease concerns of displacement. If the catalysts of change work together to create more neighborhood investment among more educated and affluent residents while providing jobs for existing blue-collar lower- and middle-class residents, the neighborhood will experience minimal job and residence displacement as well as an improved economy and society.

Perspectives on gentrification in New York City highlight the effects of massive redevelopment (as seen in Williamsburg) and large financial investors on transforming neighborhoods beyond Manhattan's center. In *Naked City*, Zukin (2010) describes the

breakdown of a neighborhood's economy and culture as redevelopment continues throughout the city stating:

... when one neighborhood after another goes upscale and new residents are not just fixing up old houses and lofts but also moving into newly built luxury condos and mom-and-pop stores are replaced by bank branches, trendy restaurants, and brand-name chains, we're looking at more than a single trend in gentrification. Neil Smith calls this "gentrification generalized." I think that it is really a broad process of re-urbanization, with changes that loosen the grip of old industries and their ways of life and expand the space taken up by white-collar men and women and their preoccupation with shopping and other kinds of consumption; bringing new residents, their tastes, and their concerns into the city's mix; and creating not just an economic division but a cultural barrier between rich and poor, young and old. This is what happens when a city loses its soul. (p. 9)

So that Red Hook does not suffer from a similar cultural loss, new construction and renovation should reflect the neighborhood's longstanding maritime and manufacturing industry by preserving significant buildings and establishing design guidelines to protect the neighborhood character.

If the history of urban neighborhood change and gentrification continues to repeat itself, Red Hook will continue to evolve as it has since the 1990s, but no significant change will likely occur until there is a substantial redevelopment effort by more than one catalyst. Abandonment has already been identified in Red Hook, but according to Smith and Marcuse, long-term investment and new construction must exist for gentrification to occur. At such time, Red Hook may experience a total transformation similar to Battery

Park City or it may maintain its character similar to the Lower East Side. Regardless of the outcome, the debates over gentrification will likely surface with redevelopment and ignite fears and concerns among existing residents and businesses. The goal of New York City and its residents should be to generate public policy and public involvement that creates non-inflated property values, a mix of rents, jobs that support the neighborhood, and a diverse population of age, race, and gender. There are an infinite number of possibilities for the future of Red Hook and although it is not possible to predict the future, a carefully considered approach to planning and implementing redevelopment will likely lead to a vibrant community that simultaneously preserves its history and embraces the ever-changing city that it is part of.

VI.2.Limitations of Research

As with any research project, there are limitations and shortcomings to this study. Due to the schedule and location of the master's program, time and access to the case study areas was a major constraint. The research sources and data were collected, studied, and presented within a seven-month span, which limited the amount of follow-up research and analysis that could be done based on preliminary findings and research. Additional time could have been allotted for further literature review on gentrification, quantitative data discovery, and interviews with residents. Although the author is a resident of New York City, a minimal amount of time was spent in the city during the study, hence limiting access to New York City resources.

Within these time constraints, a limited review of gentrification was conducted to provide a basis on the definition and outcomes of the phenomenon as it related to New York City neighborhoods between the 1970s and 2010s. Additional research and

understanding of gentrification would provide a richer foundation for understanding future change of Red Hook.

Due to limited time, U.S. Census Data was retrieved via electronic source opposed to hard copy. Although the U.S. Census Bureau provides access to an extensive amount of population, housing, economic, and geographic information through the on-line resource American FactFinder, data only covers the 21st century. Through the National Center for Disease Control and Prevention website, 1990 Census Data from source file STF3A was retrieved. This data was compared to Census Data from 2000 and 2010 for all case study areas to determine trends of gentrification and neighborhood redevelopment. The 1990 data accessed did not include household income data or population education levels and is a limitation in this study since these are two attributes often tracked in gentrifying neighborhoods. For research dedicated to identifying and proving that gentrification is occurring in the neighborhood, additional quantitative data would be needed to make such a claim. Additional information on real estate trends and business turnover would also provide analytical data for measuring gentrification.

Qualitative data outside of books and articles was partial to local New York City scholars that had studied changing neighborhoods in recent years. Additional interaction and correspondence with residents and businesses of the case study neighborhoods is prudent to understanding the succession and implications of change. Access to locals in Red Hook is a challenge as the majority of the population lives in a public housing project; however the residents are an integral part in the study of neighborhood change and the omission of their insight is a significant gap in this research. This research should

be used as a foundation for understanding the future of Red Hook before taking research to the necessary next stage of community member involvement.

VI.3.Future Research

This thesis focused on the possible social and economic impacts of redevelopment in Red Hook without addressing physical aspects and implications on society. Future research on neighborhood change may include a study on how redevelopment affects the design, identity, or character of a neighborhood and the social implications of such change. Red Hook also has some unique characteristics that could be further explored to generate plans that reflect the neighborhood's history and demographics. For example, organizations such as the Metropolitan Waterfront Alliance (MWA) act as the voice of over 620 organizations with ties to the city's waterways to preserve the access and use of Red Hook's waterfront. Maritime advocates such as MWA President and CEO, Roland Lewis, seek to preserve the city's waterfront for maritime use yet little research has been conducted to understand the demand and economic viability of marinas and other maritime facilities (personal communication, May 8, 2012). Additional research on the urban maritime activity and use would provide information to support the possibility of preserving Red Hook's maritime waterfront.

Two additional characteristics of Red Hook that could be further researched to determine future redevelopment are crime and public housing. According to sociologist Philip Kasinitz, crime has been down in Red Hook since the 1990s (personal communication, May 7, 2012). What is not fully understood is whether crime rates and drug use have really declined in the neighborhood since the national publicity in 1992 or if drug dealing and other crime have merely received less attention. The study of crime in

the neighborhood is relevant to Red Hook's redevelopment because the potential resident demographics and home values may vary with crime rates. More information could be gathered to understand the transition of the public housing in Red Hook from a place for the European immigrant dockworkers and their families to a community consisting primarily of African-Americans and Latinos. Studies of the impacts of other large urban low-income housing projects would reveal how the Red Hook Houses may impact Red Hook's future redevelopment and culture and how gentrification may impact the adjacent public housing. A study of U.S. housing and welfare reform laws would also be advantageous for understanding the impacts to public housing and redevelopment in Red Hook. If the New York City Housing authority is faced with revenue losses because tenants stop receiving welfare assistance then the future of the Red Hook Houses will be affected. The impacts of HOPE VI, a distressed public housing project redevelopment program, should be studied when considering future potential change in Red Hook. The resultant mixed-income developments would change the economic and social structure of Red Hook.

There are three additional areas of study that would contribute to an understanding of future impacts of redevelopment in industrial Brooklyn neighborhoods such as Gowanus. Additional urban planning study of similar neighborhoods that have not yet experienced gentrification would ensure that redevelopment does not create negative social or economic impacts such as segregation, displacement, or total industry loss. Additional study should include the succession leading to gentrification, ways to measure gentrification, and neighborhood risks of gentrification. The loss of industry in New York City could also be studied to project future impacts on the city's economy.

And finally, a study on neighborhood redevelopment impacts of economic trends such as the most recent national recession would be important to understand how the redevelopment of Red Hook stalled and whether it will re-set itself.

REFERENCES

- Abbott, B., & McCausland, E. (1973). *New York in the thirties*. New York, NY: Dover Publications, Inc.
- Abu-Lughod, J. L. (1995). *From urban village to East Village: The battle for New York's Lower East Side*. Malden, MA: Wiley-Blackwell Publishers Inc.
- Abu-Lughod, J. L. (1999). *New York, Chicago, Los Angeles: America's global cities*. Minneapolis, MN: The University of Minnesota Press.
- Association of American Geographers. (1999). *The urban growth machine: Critical perspectives two decades later*. (A. E. Jonas, & D. Wilson, Eds.) Albany, NY: University of New York Press.
- Aurora Contractors, Inc. (n.d.). *Aurora Contractors*. Retrieved 2012 May, from <http://www.auroracontractors.com/>
- Battery Park City Parks Conservancy. (n.d.). *Battery Park City Parks History*. Retrieved May 2012, from www.bpcparks.org
- Brooklyn Cruise Terminal. (n.d.). *Queen Elizabeth 2*. Retrieved May 2012, from <http://inredhook.com/cruises/queen-elizabeth-2/>
- Brown-Saracino, J. (. (2010). *The gentrification debates: A reader*. New York, NY: Routledge.
- City of New York. (2012). *City of New York Parks and Recreation*. Retrieved May 2012, from <http://www.nycgovparks.org/about/history/historical-signs/listings?id=12487>
- Clay, P. L. (1979). *Neighborhood renewal: Middle-class resettlement and incumbent upgrading in American neighborhoods*. Lexington, MA: Lexington Books.

Colorants History. (2011). *Brooklyn, New York Dye Industry*. Retrieved May 2012, from <http://www.colorantshistory.org/BrooklynDyeIndustry.html>

Crain's New York Business. (2005, June 6). Residential commercial collision. *Crain's New York Business* , 21 (23), p. A107.

Curran, W. (2007). 'From the frying pan to the oven': Gentrification and the experience of industrial displacement in Williamsburg, Brooklyn. *Urban Studies* , 44 (8), 1427-1440.

De Avila, J. (2010, November 6). Property -- open house: Pluses and minuses of Red Hook's seclusion. *Wall Street Journal* , p. A18.

DeGiovanni, F. F. (1987). *Displacement pressures in the Lower East Side*. Pratt Institute, Department of Research, Policy and Program Development. New York: Community Service Society of New York Working Papers.

Downtown-Lower Manhattan Association. (2009). *Downtown-Lower Manhattan Association*. Retrieved May 2012, from <http://www.d-lma.com/>

Emporis GMBH. (2000-12). *Emporis Buildings*. Retrieved May 2012, from <http://www.emporis.com/neighborhood/batteryparkcity-manhattan>

Fainstein, S. S. (2001). *The city builders: Property development in New York and London, 1980-2000*. Lawrence, KS: University Press of Kansas.

Fainstein, S. S. (2010). *The just city*. Ithaca, NY: Cornell University Press.

Fainstein, S. S., Fainstein, N. I., Hill, R. C., Judd, D., & Smith, M. P. (1986). *Restructuring the city: The political economy of urban redevelopment*. Whiteplains, NY: Longman Inc.

Fedders, B. (1994). Blue collar revival? *City Limits* , 19 (3), 18-19.

- Feininger, A., & Lyman, S. E. (1964). *The face of New York: The city as it was and as it is*. New York, NY: Crown Publishers, Inc.
- flickr. (2012). *flickr from Yahoo*. Retrieved May 2012, from <http://www.flickr.com/>
- Freeman, L. (2006). *There goes the 'hood: View of gentrification from the ground up*. Philadelphia, PA: Temple University Press.
- Freeman, L., & Braconi, F. (2004). Gentrification and displacement: New York City in the 1990s. *Journal of the American Planning Association* , 70 (1), 39-52.
- Frieden, B. J., & Sagalyn, L. B. (1989). *Downtown, Inc.: How America rebuilds cities*. Cambridge, MA: The MIT Press.
- Frug, G. E. (1999). *City making: Building communities without building walls*. Princeton, NJ: Princeton University Press.
- Garner, D. (2011, March 18). The last townie. *New York Times* .
- Gordon, D. L. (1997). *Battery Park City: Politics and planning on the New York waterfront*. Amsterdam: Gordon and Breach Publishers.
- Gratz, R. B. (2010). *The battle for gotham: New York in the shadow of Robert Moses and Jane Jacobs*. New York, NY: Nation Books.
- Hammett, J., & Hammett, K. (2007). *The suburbanization of New York: Is the world's greatest city becoming just another town?* New York, NY: Princeton Architectural Press.
- Holman, T. (2011, November 16). World Financial Center shut down to non-employees; OWS plans day of action. *Downtown* .
- Jackson, K. T. (2010). *The encyclopedia of New York City* (2nd ed.). New Haven, CT: Yale University Press.

- Jacobs, J. (1961). *The death and life of great American cities*. New York, NY: Random House, Inc.
- Jick, T. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative Science Quarterly* , 24 (4), 602-611.
- Johnstone, Q. (1958). *Federal Urban Renewal Program*. Yale Law School. New Haven: Faculty Scholarship Series.
- Kasinitz, P. (2000). Red Hook: The paradoxes of poverty and place in Brooklyn. *Research in Urban Sociology* , 5, 253-274.
- Kasinitz, P., & Hillyard, D. (1995). The old-timers' tale: The politics of nostalgia on the waterfront. *Journal of Contemporary Ethnography* , 24 (2), 139-164.
- Kasinitz, P., & Rosenberg, J. (1996). Missing the connection: Social isolation and employment on the Brooklyn waterfront. *Social Problems* , 43 (2), 180-196.
- Kromer, J. (2000). *Neighborhood recovery: Reinvestment policy for the new hometown*. New Brunswick, NJ: Rutgers University Press.
- L+M Development Partners Inc. (2008). *Featured Projects*. Retrieved May 2012, from <http://www.lmdevpartners.com/featured-projects.html>
- Lin, J. C. (1995). The changing economy of the Lower East Side. In J. L. Abu-Lughod, *From urban village to East Village: The battle for New York's Lower East Side* (p. Chapter 2). Malden, MA: Wiley-Blackwell Publishers Inc.
- Marcuse, P. (1986). Abandonment, gentrification, and displacement: the linkages in New York City. In N. Smith, & P. Williams (Eds.), *Gentrification of the city* (pp. 153-177). Boston, MA: Allen & Unwin Inc.

- Marwell, N. (2007). *Bargaining for Brooklyn: Community organizations in the entrepreneurial city*. Chicago, IL: The University of Chicago Press.
- McGeehan, P. (2011, March 14). 520 miles of waterfront to get long-range plan. *New York Times*, p. A22.
- Mele, C. (2000). *Selling the Lower East Side: Culture, real estate, and resistance in New York City*. Minneapolis, MN: University of Minnesota Press.
- Mele, C. (1995). The process of gentrification in Alphabet City. In J. L. Abu-Lughod, *From urban village to East Village: The battle for New York's Lower East Side* (p. Chapter 8). Malden, MA: Wiley-Blackwell Publishers Inc.
- Merriam-Webster Inc. (2012). *Merriam-Webster Online*. Retrieved May 2012, from www.merriam-webster.com
- National Center for Disease Control and Prevention. (1990). *1990 Census Data by zip code, county, census tract and block group*. Retrieved May 2012, from <http://www2.cdc.gov/nceh/lead/census90/house11/download.htm>
- New York City. (2012). *New York City Housing Authority*. Retrieved May 2012, from <http://www.nyc.gov/html/nycha/html/home/home.shtml>
- New York Industrial Retention Network. (n.d.). *Made in NYC*. Retrieved May 2012, from <http://www.madeinnyc.org/aboutnyc.cfm>
- New York State Department of State. (2011, March). *Vision 2020: New York City comprehensive waterfront plan*. Retrieved May 2012, from New York City Planning Department: http://www.nyc.gov/html/dcp/pdf/cwp/vision2020_nyc_cwp.pdf

- Perkins Eastman. (2012). *EE&K Portfolio*. Retrieved May 2012, from <http://www.eekarchitects.com/portfolio/4-mixed-use-master-plans/15-battery-park-city>
- Popper, B. (2008, June 16). The hero (or villain?) of the Red Hook IKEA. *The New York Observer*.
- Rogan, H. (2000). Red Hook catches the wave. *New York*, 33 (31), pp. 47-51.
- Rosler, M., & Wallis, B. (Eds.). (1991). *If you lived here: The city in art, theory and social activism*. Seattle, WA: Bay Press.
- Rsguskind. (2007, April 6). *The Gowanus Lounge*. Retrieved May 2012, from <http://gowanuslounge.blogspot.com/2007/04/check-out-red-hook-from-above.html>
- Russell, F. (1994). Battery Park City: An American dream of Urbanism. In B. C. Scheer, & W. F. Preiser (Eds.), *Design review: Challenging urban aesthetic control* (pp. 197-209). New York, NY: Chapman & Hall.
- Siegel, F. (1997). *The future once happened here: New York, D.C., L.A., and the fate of America's big cities*. New York, NY: The Free Press.
- Smith, N. (1996). *The new urban frontier: Gentrification and the revanchist city*. New York, NY: Routledge.
- Smith, N., & DeFilippis, J. (1999). The reassertion of economics: 1990s gentrification in the Lower East Side. *International Journal of Urban & Regional Research*, 23 (4), 638-653.
- Smith, N., & Williams, P. (Eds.). (1986). *Gentrification of the city*. Boston, MA: Allen & Unwin Inc.

- Sorkin, M. (Ed.). (1992). *Variations on a theme park: The new American city and the end of public space*. New York, NY: Hill and Wang.
- Sternbergh, A. (2007, November 12). The embers of gentrification. *New York* , 40 (41), pp. 28-109.
- Strom, E. A., & Mollenkopf, J. H. (Eds.). (2007). *The urban politics reader*. New York, NY: Routledge.
- The City of New York. (2012). *New York City Department of City Planning*. Retrieved May 2012, from <http://www.nyc.gov/html/dcp/home.html>
- The Municipal Art Society of New York. (2007). *Save Brooklyn's Industrial Heritage*. Retrieved 2012 May, from http://saveindustrialbrooklyn.org/red_hook.html
- The O'Connell Organization. (n.d.). *Red Hook Waterfront*. Retrieved May 2012, from <http://www.redhookwaterfront.com/>
- Traster, T. (2003). Special report commercial real estate: Hot Brooklyn properties put a freeze on industry. *Crain's New York Business* , 19 (19), p. 39.
- U.S. Census Bureau. (2010). *American FactFinder*. Retrieved April 2012, from <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>
- U.S. Department of Housing and Urban Development. (2012). *HUD History*. Retrieved May 2012, from http://portal.hud.gov/hudportal/HUD?src=/about/hud_history
- Wertz, S. (2001). Manufacturing in New York City? *Oculus* , 63 (9), 20.
- Whyte, W. H., Gody, L., Harvey, C. D., & Reed, J. (Eds.). (1982). *The WPC Guide to New York City: The Federal Writers' Project Guide to 1930s New York*. New York, NY: Random House, Inc.

- Wolf-Powers, L. (2005). Up-zoning New York City's mixed-use neighborhoods. *Journal of Planning Education and Research* , 24 (4), 379-393.
- Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed., Vol. 5). Thousand Oaks, CA: Sage Publications, Inc.
- Zielenbach, S. (2000). *The art of revitalization: Improving conditions in distressed inner-city neighborhoods*. New York, NY: Garland Publishing, Inc.
- Zukin, S. (2010). *Naked city: The death and life of authentic urban places*. New York, NY: Oxford University Press.

APPENDIX

List of Interviewees and Date of Communication

- (1) Philip Kasinitz, CUNY Graduate Center – May 7, 2012
- (2) Thomas Angotti, Hunter College – May 7, 2012
- (3) Roland Lewis, Metropolitan Waterfront Alliance – May 8, 2012
- (4) Lance Freeman, Columbia University – May 22, 2012
- (5) Nicole Marwell, Baruch College CUNY – May 31, 2012

List of Interview Questions

- (1) How familiar are you with Battery Park City, the Lower East Side, Williamsburg, and Red Hook?
- (2) How much do you think they have changed since the 1980s?
- (3) How much of these changes resulted from deliberate planning-related policies?
- (4) How much of the changes resulted from the action of community groups?
- (5) How much of these changes resulted from real estate market pressures?
- (6) What are your thoughts about the future of Red Hook given the present policies, real estate pressures, and social movements?
- (7) How do you think the city should face these trends?