CHAPTER 9. SOCIOECONOMIC CONDITIONS

9.1 INTRODUCTION

9.1.1 CONTEXT

The World Trade Center (WTC) and the World Trade Center Memorial and Redevelopment Plan (Proposed Action) share common ground and both were born out of an effort to revitalize Lower Manhattan through redevelopment. The WTC was originally conceived in the early 1960s by the Downtown-Lower Manhattan Development Association to revitalize the seedy "radio row" dominated by electronic stores. Chase Manhattan Bank chairman David Rockefeller, founder of the development association, and his brother, New York governor Nelson Rockefeller, pushed hard for the project, insisting it would benefit the entire city. In 1962, the Port Authority of New York and New Jersey (the Port Authority) began plans to build the WTC, and selected architect Minoru Yamasaki to design the project, architects Emery Roth & Sons to handle production work, and, at the request of Yamasaki, the firm of Worthington, Skilling, Helle and Jackson to serve as engineers. The Port Authority envisioned a project with a total of 10 million square feet of office space. To achieve this, Yamasaki considered more than a hundred different building configurations before settling on the concept of twin towers and three lower-rise structures. Critics charged that a modern monolith would rob New York of character, ruin the skyline, disrupt television reception, and strain city services. However, the project was approved and construction began in 1966.

In order to create the approximately 16-acre WTC superblock bounded by Vesey, Church, and Liberty Streets and Route 9A (WTC Site), 164 buildings were demolished and five streets were eliminated. Construction required the excavation of more than 1.2 million cubic yards of earth, which contributed to the creation of 23.5 acres of land along the Hudson River in Lower Manhattan (the foundation of Battery Park City). The North Tower of the WTC was opened in December 1970 and the South Tower in January 1972; they were dedicated in April 1973. While the Twin Towers had high vacancy rates for several years due to a slumping economy in the mid-1970s, during most periods they were about 85 percent occupied. Their occupancy levels grew during boom times of the early 1980s, and again in the late 1990s through September 10, 2001, when the occupancy rate was at its highest level of approximately 96.6 percent. In addition to the structures at the WTC Site, the WTC complex grew with the completion, in 1987, of the office tower at 7 WTC built by Silverstein Properties. The WTC served as a catalyst for other major development projects in the area, including Battery Park City and the World Financial Center, which likely would not have occurred without the WTC.

By the turn of the century, the WTC complex was a major economic driver in Lower Manhattan and the Twin Towers were symbols of commercial vitality, representing the strength of the Financial District and New York City as a world leader in trade and finance. Located at the heart of the nation's third-largest business district, the WTC complex employed over 42,000 workers, and contained approximately 14 million square feet of commercial office space within the Twin

Towers and four adjacent office buildings, as well as hotel and conference facilities, open space, and one of the most successful enclosed specialty retail centers in the country.

The September 11 attacks had devastating economic impacts on Lower Manhattan and the New York City region. The destruction of the WTC complex resulted in the loss of thousands of lives, the elimination and relocation of tens of thousands of jobs from Lower Manhattan, and the destruction of approximately 13.4 million square feet of office space and 500,000 square feet of retail space, a majority of which was in the underground mall of the WTC complex. The attacks also damaged an additional 21 million square feet of office space and devastated residential neighborhoods in the vicinity of the WTC Site. Area residents and businesses faced both economic uncertainty due to the costs associated with the disaster and community instability due to the sudden vacancies and the burdens associated with remaining in the area. Lower Manhattan experienced limited traffic access and parking for months following September 11, which had immediate negative impacts on tourist-related stores and restaurants, as well as industries that depend on quick turn around, such as the garment industry in Chinatown. The attacks resulted in the subsequent loss of billions of dollars in revenues for New York City and State, as well as the specific costs associated with the immediate recovery efforts.

As part of the efforts toward rebuilding and revitalizing New York City in the wake of September 11, numerous policy initiatives were enacted, including the New York Liberty Bond Program, which offers tax-exempt financing for the construction and renovation of commercial and residential properties in Lower Manhattan. New federal, state, and city government-led initiatives have also been established to provide financial assistance to the Lower Manhattan population. These programs were set up to help retain existing and attract new residents, retail store owners, small businesses, and large corporations by providing grants, tax benefits, and other incentive packages. The residential grant program, in particular, provided financial incentives that resulted in greater economic diversity in relatively homogenous census tracts surrounding the WTC Site.

Despite these ongoing efforts, many sectors of the New York City economy are still struggling to recover from the diffuse adverse economic effects brought about by September 11. Approximately 25,000 jobs, or about 18 percent of the jobs displaced by the September 11 attacks, have been lost from New York City, and almost half of all the displaced employees relocated outside of Lower Manhattan. Due to the direct displacement and relocation, as well as the economic downturn accelerated by the terrorist attacks, Lower Manhattan lost approximately 71,256 employees between 2000 and 2002—almost 17 percent of its year 2000 workforce. Retailers lost approximately 13,440 employees, or 11 percent of its 2000 workforce base over the same time period. By far, the greatest loss was in the finance, insurance, and real estate sectors, which decreased by approximately 34,370 employees between 2000 and 2002, a decrease of over 25 percent. The loss of life, jobs, and commercial space affected the vitality of the Financial District, and continues to pose a threat to the continuation of Lower Manhattan as the financial core of the City. Over 55 percent of the employment in buildings damaged or destroyed by the terrorist attacks was in the finance sector, and another 9 percent was in the insurance industry. In addition, the lasting economic effects of the terrorist attacks are not just felt in New York City, given that the financial services and international trade conducted in Lower Manhattan are important to the nation and the world. A widespread sentiment arose in the city, the state, and the nation for rebuilding to restore the iconic center of Lower Manhattan's Financial District, and to honor those who died there on September 11, 2001 and on February 26, 1993.

This chapter examines the Proposed Action in the larger context of the economic recovery from September 11, and the role of the Proposed Action's various components in furthering the effort to rebuild and revitalize Lower Manhattan and support a vital, mixed-use neighborhood. The Proposed Action would introduce a combination of uses to the Project Site different in scale and composition from the existing largely undeveloped property, as well as the commercial mix that existed prior to September 11. It would provide for the construction of a WTC Memorial and memorial-related improvements, up to 10 million square feet of commercial office space, up to 1 million square feet of retail space, a hotel with up to 800 rooms and up to 150,000 square feet of conference space, new open space areas, museum and cultural facilities and certain infrastructure improvements, including below-grade parking for automobiles and buses, security facilities, the reopening of Greenwich and Fulton Streets through the WTC Site, and the reconfiguring of Cedar and Washington Streets through the Southern Site.

This chapter analyzes the potential impacts of this development on the social and economic characteristics of Lower Manhattan, including commercial office and retail activity, residential resources, and employment trends. The analysis considers both the potential adverse and beneficial effects of the proposed mix of uses, and how each component of the proposed development would contribute to one of the primary objectives of the Proposed Action: to re-establish the Project Site as a locus of commerce, civic space, and amenities, including appropriate commercial and retail uses for the Downtown area. Given that the Proposed Action would result in substantial redevelopment, including replacement office space, an increased retail presence, and new non-commercial land uses, the analysis also considers the potential effects on employment in Lower Manhattan.

In analyzing potential adverse effects, the chapter considers whether the Proposed Action could alter one or more of the underlying forces that shape socioeconomic conditions in Lower Manhattan in a manner that would indirectly displace businesses or residents. It examines how the introduction of the uses planned for the Project Site under the Proposed Action could affect rents and occupancy in the Lower Manhattan residential, commercial office and retail markets, and whether any potential changes could lead to the displacement of existing residents and businesses. The analysis evaluates the impacts on retail sales in the context of the anticipated increase in employment in Lower Manhattan, as well as the expected demand that would likely be generated by the visitors to the Memorial, museum, cultural facilities, and retail components of the Proposed Action. The analysis considers the potential for indirect displacement of residential tenants based on the potential for the Proposed Action to alter or accelerate existing residential market trends.

The Proposed Action would generate enormous economic benefits from the construction and operation of the planned uses, including direct and indirect employment, wages and salaries, business and sales tax, and total economic output (or demand for goods and services). However, the Proposed Action would also place demands on Lower Manhattan's infrastructure, including demands on police and fire safety, which would be required to service the planned uses. This chapter provides estimates of the economic and fiscal benefits, and weighs the projected benefits against likely public sector costs.

9.1.2 CONCLUSIONS

The Proposed Action was analyzed with respect to socioeconomic conditions under two scenarios, the Pre-September 11 Scenario and the Current Conditions Scenario. Through these scenarios, the analysis compares the effects of the Proposed Action to conditions that would exist if the Proposed Action were not developed and to pre-September 11 conditions. Under both scenarios, the Proposed Action would not result in significant adverse socioeconomic impacts. As intended, the Proposed Action would eliminate the blighting effect of the vacant and excavated Project Site, and would produce substantial economic benefits during construction and operation of the new development.

PRE-SEPTEMBER 11 SCENARIO

The Proposed Action would not result in significant direct or indirect residential displacement in either the 2009 or 2015 analysis year. To the contrary, the Proposed Action would restore the office presence on the Project Site to levels comparable to what existed prior to September 11, while the additional retail and other amenities would promote a more vibrant overall presence. Lower Manhattan has long been a center of world finance and a major economic engine for the entire region, but it has more recently become the fastest-growing residential neighborhood in the city. The various amenities planned as part of the Proposed Action reflect an existing and projected need from residents, rather than an effort to alter or accelerate trends in neighborhood character.

The Proposed Action would not result in significant direct or indirect business displacement in either the 2009 or 2015 analysis year. By 2015, the Proposed Action would reintroduce approximately 10 million square feet of office space to the Project Site, which is about 1.9 million square feet less office space than existed prior to September 11. This slightly reduced total square footage would not significantly affect long term rental rates for office space in Lower Manhattan, nor would it adversely alter existing economic patterns. The anticipated office presence would be consistent in scale and types of uses with conditions on the Project Site prior to September 11, and similar to existing buildings in the surrounding area. In addition, the Proposed Action would be consistent with, and would reflect the implementation of, New York City and State policy since September 11 of strengthening Lower Manhattan as an office center. The new office space would accommodate the employment growth critical for sustaining Manhattan’s role as a leading center of commerce and business. The Proposed Action, coupled with existing financial incentives and other physical improvements planned for Lower Manhattan, would represent a clear signal to commercial businesses that the city and state are committed to attracting and supporting new investments in Lower Manhattan.

There would be a greater amount of retail on the Project Site compared to pre-September 11 conditions (350,000–400,000 square feet in the former WTC Mall, depending on occupancy), and a majority of the new retail would be above ground, in the first three floors of the new office towers. This new street-level retail presence on the Project Site would better facilitate trips from the new retail to existing retail in the area surrounding the Project Site, and in Lower Manhattan more generally. In addition, the existing retail stores in Lower Manhattan would benefit from the increased visitation expected at the Memorial, museum, and other places of interest on the Project Site, compared with visitation to the former WTC complex.

By 2015, the Proposed Action would re-introduce a hotel to the Project Site, which would contain approximately 20 fewer rooms than the New York Marriott World Trade Center Hotel that existed on the site prior to September 11, but would have larger conference facilities. While the new hotel space would compete with existing hotels in Lower Manhattan, the substantial project-generated visitation to Lower Manhattan is expected to have a net benefit on existing hotels and would therefore not impair their economic viability.

The Proposed Action would generate enormous economic and fiscal benefits during both the construction and operation of the development. Construction of the completed building program would create about 50,830 person-years[1] of direct construction employment in New York City, as well as an additional 45,698 person-years of indirect employment in New York City and State. Construction activity would have a total effect on the local economy, measured as economic output or demand for local industries, equal to about $15.75 billion in New York State, of which $12.06 billion would occur in New York City. LMDC and the Port Authority have existing policies regarding contracting and procurement of goods and services from minority, disadvantaged, and women-owned businesses, and it is expected that these policies will be applicable to the publicly funded portions of the Proposed Action. These policies are expected to facilitate the distribution of direct jobs and economic benefits to minority, disadvantaged, and women-owned businesses. During operation, the on-site employment of the completed building program is estimated at approximately 39,412 to 40,553 full-time equivalent jobs, as well as an additional 56,057 to 56,460 full-time equivalent jobs generated indirectly in New York City and State. The total effect from the operation of the completed building program is estimated at $31.17 to $31.36 billion annually in New York State, of which $26.78 to $26.94 billion would occur in New York City. The Proposed Action is estimated to generate non-property tax revenues estimated at approximately $1.17 to $1.19 billion annually. Overall, the Proposed Action would restore the economic vitality of the Project Site and the corresponding economic and fiscal benefits to approximately the same levels that existed prior to September 11, or to even greater levels when accounting for the off-site spending by visitors to the site.

CURRENT CONDITIONS SCENARIO

As with the Pre-September 11 Scenario, the Proposed Action would not result in significant direct or indirect residential displacement in either the 2009 or 2015 analysis year under the Current Conditions Scenario. The proposed changes in land use would not adversely affect the local residential real estate market. To the contrary, the amenities associated with the Proposed Action would make the area livelier and would serve as a key component of the broader initiative to make Lower Manhattan a more attractive place to live, work, and visit. The development on the Project Site would be compatible with the surrounding area, and would provide neighborhood amenities to serve the substantial existing residential population as well as the growing residential presence in Lower Manhattan.

The Proposed Action would not result in significant direct or indirect business displacement in either the 2009 or 2015 analysis year. By 2015, the 10.0 million square feet of office space would be a major addition to the Lower Manhattan office market, representing approximately 8.8 percent of the total office space in Lower Manhattan. The anticipated office uses would be consistent with the existing economic activity in the area, and would be of the type and amount that would support renewed economic activity within the third-largest business district in the nation. As described above, the Proposed Action would be consistent with, and would reflect the implementation of, New York City and State policy since September 11 of strengthening Lower Manhattan as an office center.

The substantial employment and visitation generated by the redevelopment of the Project Site would add to the consumer base of both existing retail in Lower Manhattan and the new retail space at the Project Site. In addition, the new retail space would generate the “critical mass” of

[1] A person-year is the equivalent of one person working full-time for a year.

retail required to capture much of the unrealized consumer spending in Lower Manhattan. For many city residents, workers, and visitors, the area surrounding the Project Site does not contain the amount and type of destination retail that would merit a dedicated shopping trip to the area; instead, other locations with a greater retail concentration, or a greater diversity in retail options, are visited. The retail presence at the Project Site could be viewed as an anchor for the Lower Manhattan shopping experience, drawing customers to Lower Manhattan, many of which would then proceed to shop at other Lower Manhattan locations.

By 2015, the Proposed Action would reintroduce a hotel to the Project Site, representing approximately 20.5 percent of the total hotel room count for Lower Manhattan. While this new hotel space would compete with existing hotels in Lower Manhattan, the substantial project-generated visitation to Lower Manhattan is expected to have a net benefit on existing hotels, and would therefore not impair their economic viability.

The enormous economic and fiscal benefits generated by the Proposed Action during construction and operation would be the same as described for the Pre-September 11 Scenario above. Construction of the completed building program would create a total of 96,521 person-years of direct and indirect employment in New York City and State. Construction activity would have a total effect on the local economy equal to about $15.75 billion in New York State, of which $12.06 billion would occur in New York City. During operation, the combined direct and indirect employment generated by the Proposed Action would be approximately 95,469 to 97,013 full-time equivalent jobs in New York City and State. The total effect from the operation of the Proposed Action is estimated at $31.17 to $31.36 billion annually in New York State, of which $26.77 to $26.94 billion would occur in New York City. Finally, the completed building program is estimated to generate non-property tax revenues estimated at approximately $1.17 to $1.19 billion annually.

9.2 METHODOLOGY

9.2.1 BASELINE SCENARIOS AND FRAMEWORK OF ANALYSES

As described in Chapter 2, "Methodology," the Proposed Action is analyzed under two separate scenarios: the Current Conditions Scenario, which assesses probable impacts based on actual current conditions in the study areas; and the Pre-September 11 Scenario, which assesses impacts based on development and socioeconomic conditions that would have been present by 2009 and 2015 had the events of September 11, 2001, never occurred.

For each scenario, the socioeconomic impact analyses begin by describing the baseline demographic characteristics and markets that shape socioeconomic conditions in Lower Manhattan. For the Current Conditions Scenario, 2003 serves as the baseline date, while the second quarter of 2001 is the baseline for the Pre-September 11 Scenario. The discussions of baseline conditions are organized into the following categories: (1) population and housing; (2) the commercial office and retail markets; (3) employment; and (4) the hotel and tourism industries. For each of these categories, the analysis is further organized into geographical areas as described below in the "Study Area Definitions" section.

Development expected in the future without the Proposed Action by 2009 is then discussed, following the same organizational format as the section that describes baseline conditions. While the Current Conditions Scenario accounts for all known planned projects in the study areas, the future without the Proposed Action under the Pre-September 11 Scenario adjusts the second quarter 2001 baseline to account only for projects that had been initiated at that time, and would likely have been completed by the 2009 analysis year.

The descriptions of development expected in the future without the Proposed Action by 2009 establish the conditions under which portions of the development under the Proposed Action would be first operating. In the "Probable Impacts of the Proposed Action" sections, the analyses describe how conditions are expected to change with the Proposed Action for each of the socioeconomic categories: population and housing; the commercial office and retail markets, employment, and the hotel and tourism industries. The analyses then examine the potential adverse and beneficial effects of these changes, and whether the Proposed Action would fulfill its purpose and need without significant adverse impacts to socioeconomic conditions.

After the analyses of probable impacts of the Proposed Action by 2009, the analyses examine the potential effects for the 2015 final build year, when all components of the Proposed Action would be developed and operational. Following the same approach as the 2009 build year analyses, the chapter first describes the development expected in the future without the Proposed Action by 2015, followed by discussions of the probable impacts with the Proposed Action.

For both scenarios and for both the 2009 and 2015 build years, the framework for the analysis of the potential adverse effects of the Proposed Action is based on the *New York City Environmental Quality Review (CEQR) Technical Manual*'s criteria for socioeconomic impact assessment:[1]

1. DIRECT RESIDENTIAL DISPLACEMENT ANALYSIS

Direct residential displacement (sometimes called primary displacement) is the involuntary displacement of residents from the site of (or a site directly affected by) a proposed action. The proposed redevelopment of the Project Site would not directly displace any residential population, given that the site does not contain residents. Therefore, no direct residential displacement would result from the Proposed Action, and further analysis of direct residential displacement is not required.

2. DIRECT BUSINESS AND INSTITUTIONAL DISPLACEMENT ANALYSIS

Direct, or primary business, displacement is the involuntary displacement of businesses from the site of (or a site directly affected by) a proposed action. The proposed redevelopment of the Project Site would not directly displace any businesses or institutions, given that the site would be largely vacant prior to development under the Proposed Action; the temporary WTC PATH station would remain in operation until a permanent WTC PATH Terminal is constructed as part of a separate action, and No. 1/9 IRT subway lines would remain in operation, as would the street-level parking facility at Site 26. Therefore, no direct business and institutional displacement would result from the Proposed Action, and further analysis of direct business and institutional displacement is not required.

3. INDIRECT RESIDENTIAL DISPLACEMENT ANALYSIS

In most cases, the issue for indirect displacement of a residential population is that an action would increase property values and thus rents throughout the study area, making it difficult for

[1] The Proposed Action is not subject to CEQR; however, where appropriate, this analysis employs the methodology set forth in the *CEQR Technical Manual*, as it is considered the most relevant guidance for the assessment of socioeconomic impacts for projects located in New York City.

some existing residents to afford their homes. A development program can indirectly affect a residential population in the following ways:

- A program could add substantial new population with different socioeconomic characteristics compared to the size and character of the existing population;
- It could directly displace uses or properties that have had a "blighting" effect on property values in the area;
- It could directly displace enough of one or more components of the population to alter the socioeconomic composition of the study area;
- It could introduce a substantial amount of a more costly type of housing compared to existing housing and housing expected to be built in the study area by the time the program is developed;
- It could introduce a "critical mass" of non-residential uses (for example, a large office complex), such that the surrounding area becomes more attractive as a residential neighborhood complex; and
- It could introduce a land use that could have a similar indirect effect if it is large enough, prominent enough, or combines with other like uses to create a critical mass large enough to offset positive trends in the study area, to impede efforts to attract investment to the area, or to create a climate for disinvestment.

Given that the Proposed Action would not include any residential development on the Project Site, the analysis of indirect residential displacement is limited to considering the possibility that the Proposed Action would displace a property that has a "blighting" effect on property values in the area, or introduces a "critical mass" of non-residential uses, thereby increasing property values and rents, and making it difficult for some existing residents to afford their homes.

4. INDIRECT BUSINESS DISPLACEMENT ANALYSIS

As with residential displacement, the issue for indirect displacement of businesses or institutions is that an action would increase property values and thus rents throughout the study area, making it difficult for some categories of businesses to remain in that area. An action can lead to such changes if:

- It introduces enough of a new economic activity to alter existing economic patterns;
- It adds to the concentration of a particular sector of the local economy enough to alter or accelerate an ongoing trend to alter existing economic patterns;
- It directly displaces uses or properties that have had a "blighting" effect on commercial property values in the area, leading to rises in commercial rents;
- It directly displaces uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses;
- It directly or indirectly displaces residents, workers, or visitors who form the customer base of existing businesses in the area; or
- It introduces a land use that could have a similar indirect effect, through the lowering of property values if it is large enough or prominent enough or combines with other like uses to create a critical mass large enough to offset positive trends in the study area, to impede efforts to attract investment to the area, or to create a climate for disinvestment.

In addition to the potential adverse effects outlined above, the potential beneficial impact of the Proposed Action on existing retail sales is evaluated in the context of the anticipated increase in employment in the study area, as well as anticipated demand that would be generated by visitors to the Memorial, museum, cultural facilities, and retail components of the Proposed Action.

5. EFFECTS ON A SPECIFIC INDUSTRY

It may be possible that a given action could affect the operation and viability of a specific industry, not necessarily tied to a specific location. An action can lead to such changes if:

- The action significantly affects business conditions in any industry or any category of business within or outside the study area; or
- The action indirectly substantially reduces employment or impairs the economic viability in the industry or category of business.

Following the analysis of potential adverse socioeconomic changes, the chapter presents the projected economic and fiscal benefits that would be generated by the development program during both the construction and operational periods. The analysis includes projections of the total employment generated, as well as the tax benefits that would be realized by New York City and State.

Finally, the chapter estimates the likely public sector costs associated with the redevelopment of commercial office and retail components of the Proposed Action. Public sector costs include infrastructure costs related to the Proposed Action and increased police and fire safety costs that would be required to service the new development.

9.2.2 STUDY AREAS

PROJECT SITE

As described in Chapter 1, "Project Description," the Project Site consists of: (1) the WTC Site, bounded by Vesey, Church, and Liberty Streets, and Route 9A; and (2) the Adjacent Sites, which include the Southern Site and the below-grade portion of Site 26 at Battery Park City (BPC). The Southern Site comprises two adjacent blocks south of the WTC Site—one bounded by Liberty, Washington, Albany, and Greenwich Streets, and the other bounded by Liberty, West, Cedar, and Washington Streets—and portions of two streets: Liberty Street between those blocks and the WTC Site and Washington Street between Cedar and Liberty Streets. Site 26 is on the one-half block of North End Avenue and Murray, West, and Vesey Streets on the eastern side of the Embassy Suites Hotel (see Figure 9-1).

POPULATION AND HOUSING STUDY AREAS

The primary and secondary study areas used for the "Population and Housing" sections conform to the primary and secondary study areas used in Chapter 3, "Land Use and Public Policy." The primary study area consists of four subareas surrounding the Project Site, labeled as: North of WTC Site, Battery Park City, Greenwich South Corridor, and Broadway Corridor. These areas would be most affected by the Proposed Action in terms of population and housing. The primary study area is also the area that experienced the greatest residential impacts from September 11 and its aftermath. The secondary study area covers a larger area of Lower Manhattan and has been divided into four subareas described as: Tribeca, Civic Center, Chinatown, and Brooklyn Bridge to Battery Park. It should be noted that the secondary study area includes only those four subareas, so statistics in this chapter comparing a particular subarea to the secondary study area compare that subarea to a portion of Lower Manhattan, not to Lower Manhattan in its entirety.

A map of the primary and secondary study areas is included in Figure 9-2. The boundaries of each subarea are described in detail in Chapter 3.

COMMERCIAL OFFICE AND RETAIL STUDY AREAS

The study areas used in the "Commercial Office and Retail Markets" (office and retail) sections of this chapter are broader than those used for population and housing. The Lower Manhattan study area for the office and retail market closely resembles the combined primary and secondary study areas used for population and housing—that is, the study area used for office and retail covers the entire Lower Manhattan area from the Hudson River to the East River and from Battery Park to Canal Street.[1] The Proposed Action is expected to most directly affect the commercial office and retail markets within Lower Manhattan, rather than the Manhattan and the New York City regional markets generally. Similarly, the office and retail markets for Lower Manhattan were more profoundly affected compared to Manhattan or the region generally.

For the office analysis, the Lower Manhattan Study Area has been further divided into five submarkets, which are different from the subareas used in the population and housing analyses and conform to those used by the real estate services firm Cushman & Wakefield. These submarkets are mapped in Figure 9-3 below, and are bounded by:

City Hall: Bound by the Brooklyn Bridge, Park Row, Vesey Street, Chambers Street, Hudson River, Canal Street, and the East River.

World Financial: Bound by Albany Street, Hudson River, Chambers Street, Church Street, Vesey Street, Broadway, Liberty Street, and Greenwich Street.

Insurance: Bound by Pine Street, William Street, Liberty Street, Broadway, Park Row, and the Brooklyn Bridge.

Financial West: Bound by Battery Park, Hudson River, Albany Street, Greenwich Street, Liberty Street, and Broadway.

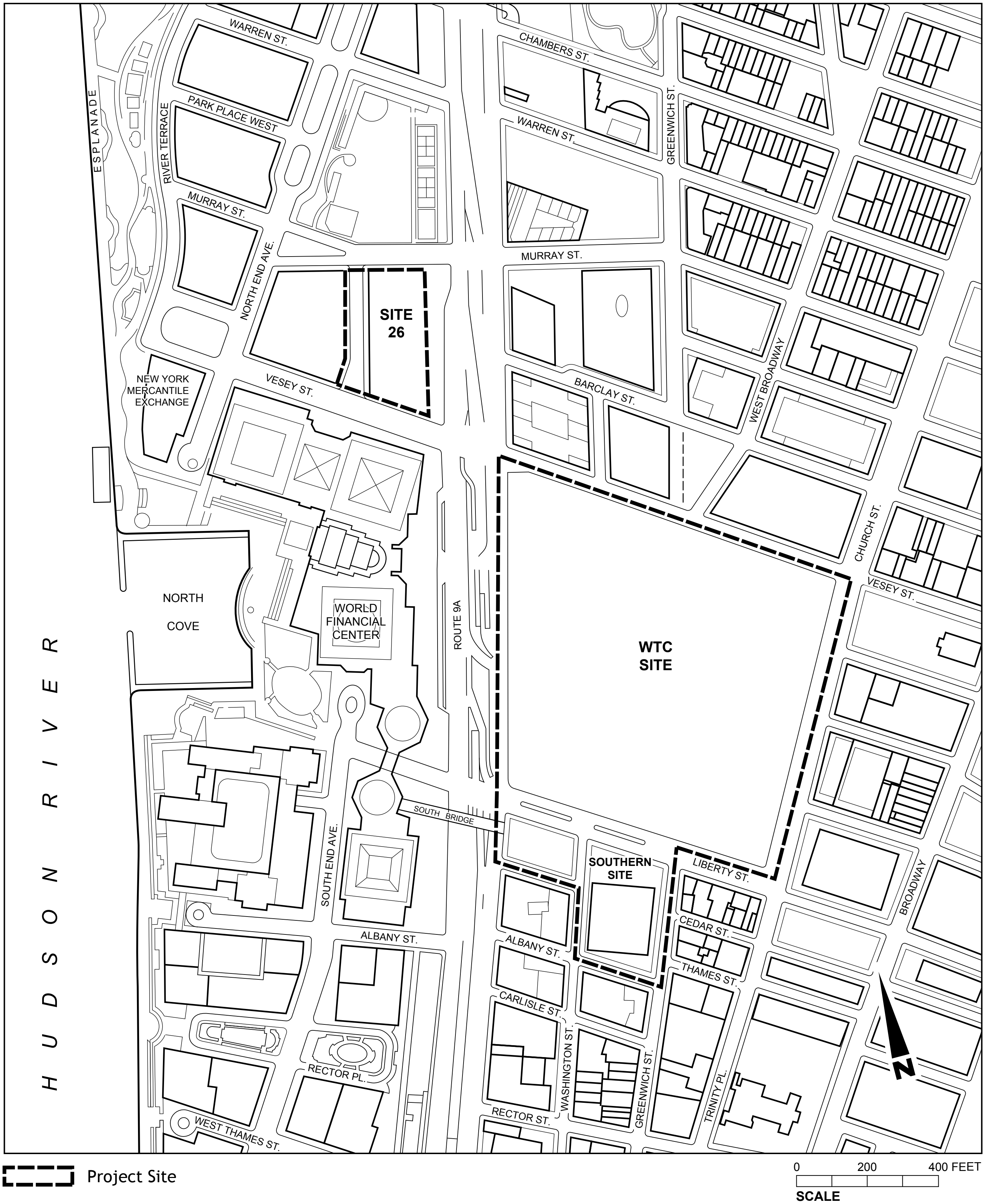
Financial East: Bound by Battery Park, Broadway, Liberty Street, William Street, Pine Street, and the East River.

Information on the office and retail markets in the Borough of Manhattan is presented along with the information on the Lower Manhattan study area. For the office analysis, the Borough of Manhattan is divided into three major submarkets: Lower Manhattan (south of Canal Street), Midtown South (Canal Street to 30th Street), and Midtown (30th Street to 72nd Street). Figure 9-4 shows the boundaries of these subareas.

EMPLOYMENT STUDY AREA

The Lower Manhattan study area for the "Employment" sections of this chapter is the same as the Lower Manhattan study area used for office and retail. However, employment characteristics

[1] The northern boundary line for this definition of Lower Manhattan deviates slightly from the one used in the population and housing section, with the border heading south from Canal Street at the approach to the Manhattan Bridge, rather than at Pike Street. This boundary was chosen because it conforms with those commonly used by Cushman & Wakefield and other real estate research groups to describe Lower Manhattan.

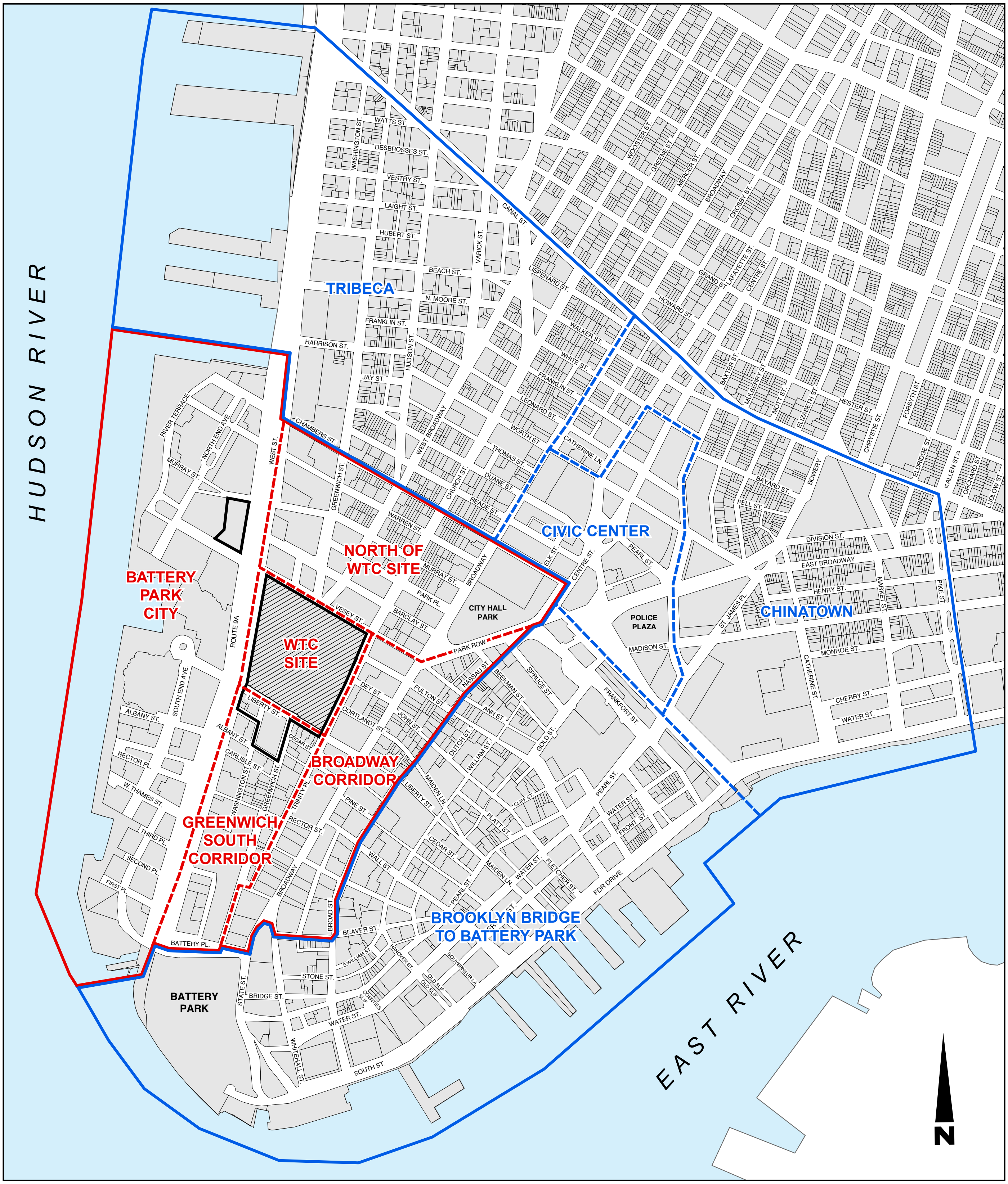


World Trade Center Memorial
and Redevelopment Plan

Project Location

Figure 9-1

11•03



WTC Site

Project Site Boundary

Primary Study Area Boundary

Primary Sub-Area Boundary

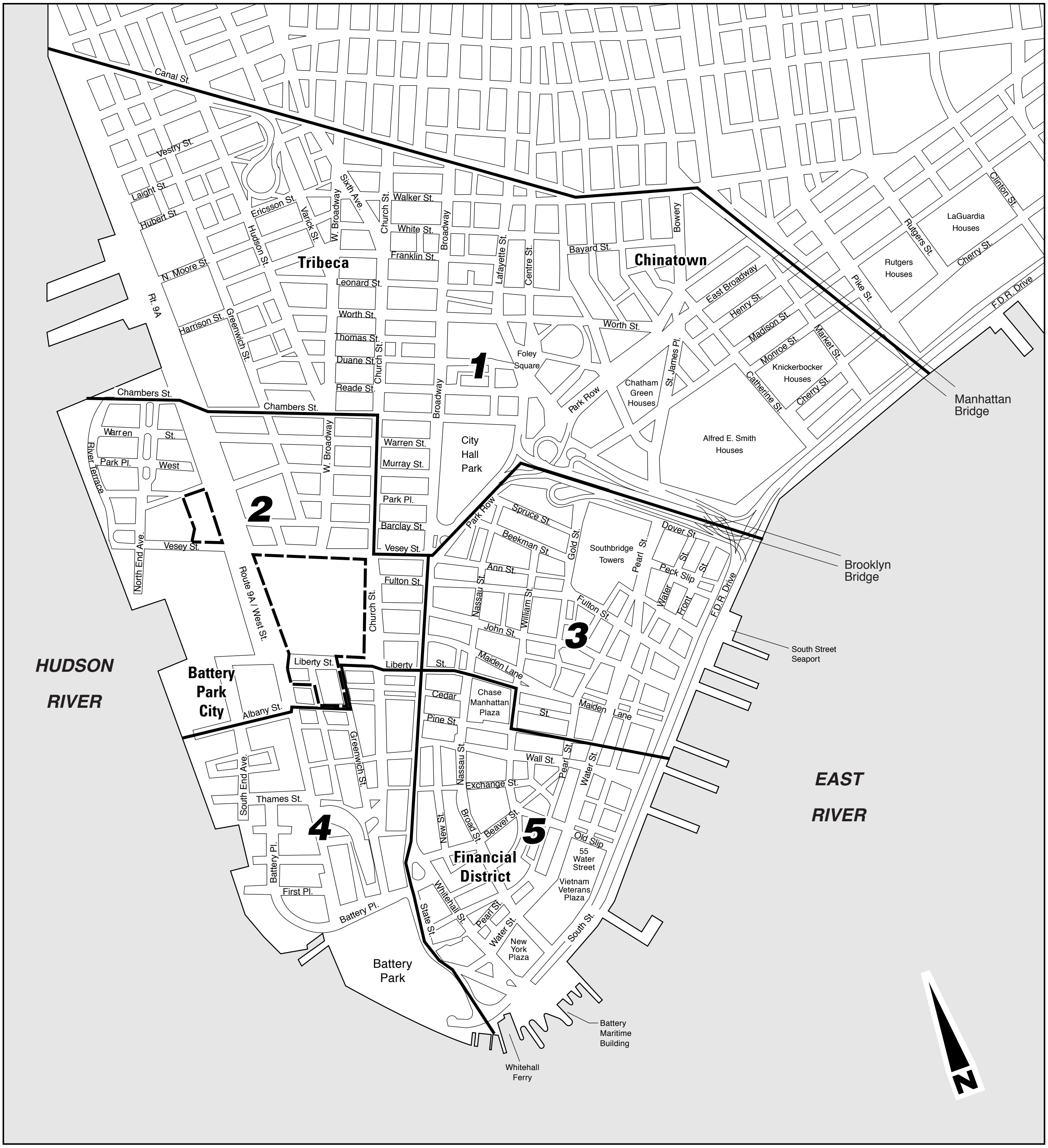
Secondary Study Area Boundary

Secondary Sub-Area Boundary

World Trade Center Memorial and Redevelopment Plan

Land Use Study Areas

Figure 9-2



Project Site

Lower Manhattan Office Market Subarea Boundary

1 City Hall

2 World Financial

3 Insurance

4 Financial West

5 Financial East

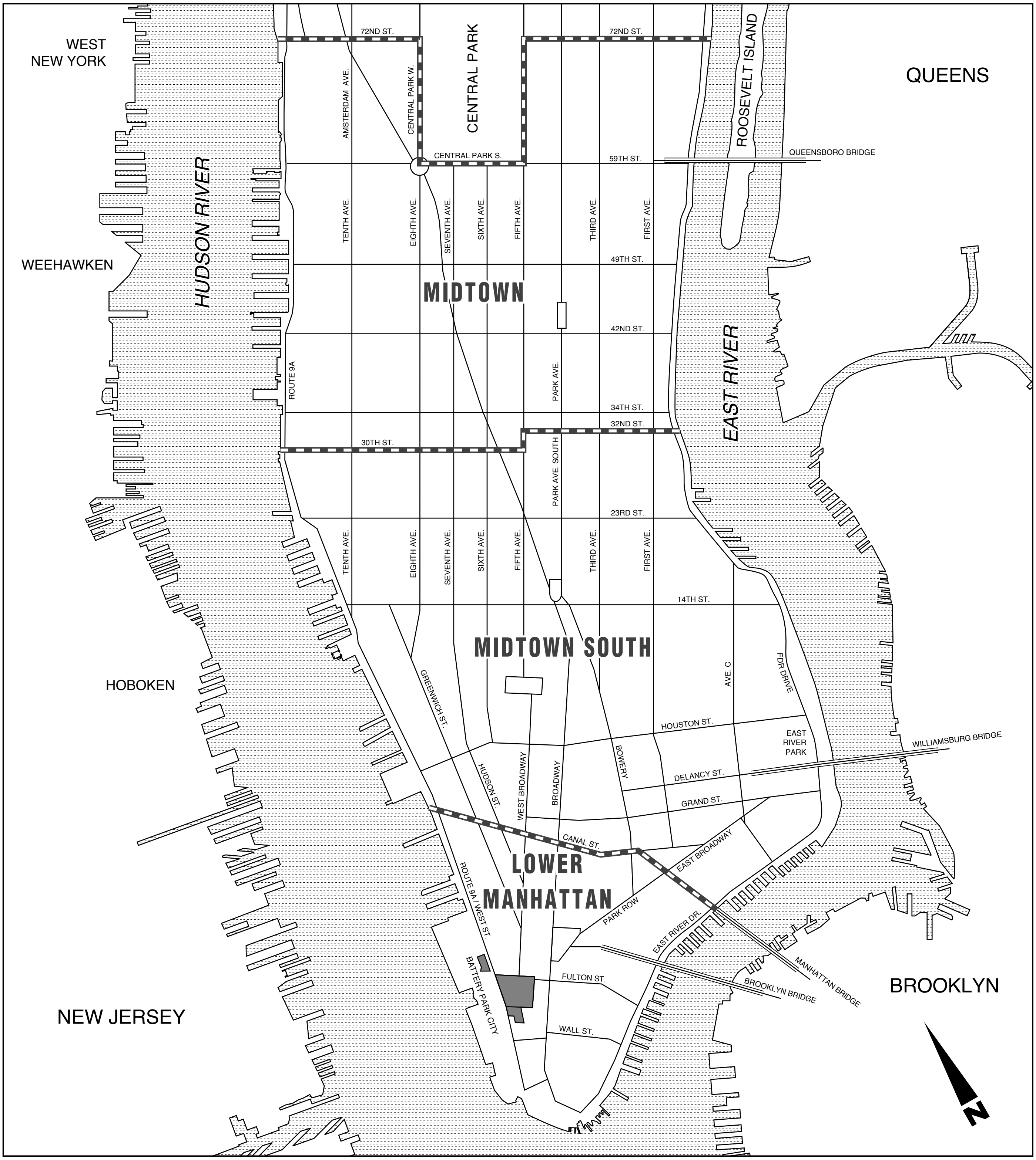
0 1000 FEET

SCALE

Lower Manhattan Office Market Subareas

Figure 9-3

11•03



Project Site

Manhattan Office Submarket Boundary

0 2000 4000 FEET

SCALE

World Trade Center Memorial
and Redevelopment Plan

Manhattan Office Submarkets

Figure 9-4

have not been allocated by Lower Manhattan submarket, as office characteristics were. Lower Manhattan would receive the most direct benefits from the Proposed Action in terms of employment, just as it was the area most adversely affected by the employment loss resulting from the attacks of September 11.

HOTELS AND TOURISM STUDY AREAS

The primary study area for the “Hotels and Tourism” sections of this chapter is the same as the one used for the office and retail sections except that Lower Manhattan data is not divided into submarkets. The secondary study area for hotels and tourism is the Borough of Manhattan.

9.2.3 SOURCES

POPULATION AND HOUSING

The assessment of population and housing trends in the primary and secondary study areas is based on data from the 1990 and 2000 census. The information was grouped into three content areas:

- Population characteristics, including total number, race and ethnicity, and median age;
- Housing characteristics, including number of housing units, housing vacancy and tenure (owner versus renter occupied), median contract rent, and median home value; and
- Household characteristics, including number of households, average household size and income, and percent of households below poverty.

The data have been organized by the subareas comprising each study area. Because the subareas were defined according to land use patterns and commonly used neighborhood definitions, however, subarea boundaries do not always conform to census boundaries (tract, block group, or block). Where census geographic units overlap subarea boundaries, a judgment was made about whether or how much of the census unit to include in the subarea based on land uses in the area and how consistent the characteristic being examined was likely to be across the census unit in question. For example, if the number of housing units in Chinatown was being calculated and a particular census block overlapped the boundary between the Chinatown and Civic Center subareas but the Geographic Information System (GIS) land use map indicated that there were no residential buildings in that portion of the census block within the Civic Center subarea, the entire census block was included in the Chinatown housing unit count.

There is some discrepancy between the precision with which the 1990 and 2000 data conforms to subarea boundaries. Because much of the 1990 census data is reported only at the census tract and block group levels (not at the level of the census block, the smallest geographic unit), the 1990 data is not as precise as the 2000 data for some demographic and housing characteristics. However, every effort was made to ensure that comparisons between 1990 and 2000 data were valid.

The Pre-September 11 Scenario is based primarily on 2000 census data. Because the census is performed only at 10-year intervals, it is impossible to obtain a fully accurate 2003 demographic and housing profile of the study areas. Thus, the Current Conditions Scenario is based largely on 2000 census data, and updated with anecdotal information and survey data compiled by LMDC and various other agencies and organizations involved in the development of Lower Manhattan, such as the Alliance for Downtown New York (Downtown Alliance). Much of the 2003 housing and population update is based on an assessment of housing units built in the study areas between 2000 and 2003, and corresponding population estimates based on 2000 average household sizes for each subarea. The list of recent housing development was compiled from a variety of sources including real estate firms, newspaper articles, Community Board 1 (which serves the Downtown area), the Downtown Alliance, and the New York City Department of City Planning (NYCDCP).

OFFICE AND RETAIL

Office market trends and current conditions for Lower Manhattan (primary study area) and Manhattan as a whole (secondary study area) are presented using data from the real estate services firm Cushman & Wakefield. Four main indicators were used to depict office market conditions: total inventory, average rent, vacancies, and absorption. Wherever possible, these indicators were reported separately for different classes of office space. Office class definitions are as follows[1]:

> *Class A*: Most prestigious buildings competing for premier office users with above-average rents for the area. Buildings have high-quality standard finishes, state-of-the-art systems, exceptional accessibility, and suggest a definitive market presence.
>
> *Class B*: Buildings competing for a wide range of users with average rents for the area. Building finishes are fair to good for the area and systems are adequate, but the buildings do not compete with class A at the same price.
>
> *Class C*: Buildings competing for tenants requiring functional space at below-average rents for the area.

Current conditions were portrayed using data from the second quarter of 2003, and Pre-September 11 conditions were portrayed using data from the second quarter of 2001.

Information regarding office space on the Pre-September 11 WTC Site was obtained from the Port Authority, which owned and managed the office space on the WTC Site.

Information on the Manhattan and Lower Manhattan Retail markets was obtained primarily from the Retail Report series published by the Real Estate Board of New York, and supplemented with information from LMDC's Fulton Corridor study, the Downtown Alliance, Wall Street Rising's Downtown Retail Attraction Program, and various neighborhood marketing materials.

EMPLOYMENT

Employment data for Manhattan and New York City are from the New York State Department of Labor (NYSDOL). Discussion of employment trends in these areas is based on data from 1990, 1995, 2000, and 2002. Second quarter 2000 data were used for the Pre-September 11 Scenario and second quarter 2002 data (the most recent data available) were used for the Current Conditions Scenario.

Employment data for Lower Manhattan (primary study area) is based on employment estimates from the New York Metropolitan Transportation Council (NYMTC) and supplemented with industry-specific data from NYSDOL. It is difficult to accurately quantify employment in Lower Manhattan using NYSDOL data because the data is available only by zip codes, and zip code 10013 is bisected by Canal Street, the northern boundary of the primary study area. Although the NYMTC data in its original form is county-based, the data set has been adjusted to the census

[1] Definitions are those provided in Cushman & Wakefield's Manhattan Marketbeat series.

tract level and used this data for several large-scale transportation projects in Manhattan, with the endorsement of a variety of city agencies. Thus, the NYMTC data was used to quantify employment in Lower Manhattan. Overall, the NYMTC-based private sector employment estimate is approximately 6 percent higher than the NYSDOL-based estimate.

To estimate employment by industry (or Standard Industrial Code—SIC) for Lower Manhattan, the NYSDOL employment distribution was applied to the NYMTC employment estimates for 2000 and 2002. For example: if, according to the NYSDOL, 35 percent of all Lower Manhattan employment in 2000 was in the services sector, then 35 percent of the NYMTC estimate for that year was assumed to be in the services sector.

The NYMTC employment figures include both public and private sector employment, and provide subtotals for both sectors. While private sector employment is based on 2000 data, the public sector employment estimate is based on 1990 data—the most recent year for which public sector employment data is available. However, government employment for New York City as a whole changed only modestly from 1990 to 2000 (decreasing by about 5 percent in magnitude, and from 16 percent to 15 percent of total city employment).

HOTEL AND TOURISM

The hotel and tourism trend discussions are largely based on information presented in a September 2002 summary report prepared for the Port Authority and LMDC titled *Urban Planning and Transportation Study: Lower Manhattan and the World Trade Center Site*. Wherever possible, figures from the report were updated to reflect the most current numbers or projections. In general, updated information was obtained from New York Convention & Visitors Bureau (NYC & Company)—either directly from research staff members, or from the February 2003 publication *Visitors to Lower Manhattan & Upper Manhattan*, a research study prepared for NYC & Company by Audience Research and Analysis.

9.3 CURRENT CONDITIONS SCENARIO

9.3.1 EXISTING CONDITIONS 2003

POPULATION AND HOUSING—2003 CURRENT CONDITIONS SCENARIO

As discussed in "Methodology," above, the Current Conditions Scenario for population and housing is based on 2000 census data coupled with information and data gathered by organizations involved in the daily operation and development of Lower Manhattan and the rebuilding of the Project Site. In order to present a full picture of current population and housing conditions in Lower Manhattan, each portion of this chapter presents 1990 and 2000 census data, highlights major changes that occurred between the two census years, and describes changes that have occurred since the 2000 census, making adjustments to the 2000 data wherever possible to reflect actual current (2003) conditions. For more details on the Project Site and primary and secondary study area boundaries, see section 9.2.2.

Population—Project Site

The WTC Site is currently vacant except for two public transit-related structures: the tunnel for the restored No. 1/9 subway lines and the temporary WTC PATH station. The Southern Site contains a large vacant office building and a vacant lot. No population or housing is present on the Project Site.

Prior to September 11, the Project Site included primarily office, retail, and hotel space. Despite the fact that there were no housing units on the site, both the 1990 and 2000 census show some population at the site, with 55 people there in 2000 and 234 in 1990 (see Table 9-1). These persons are listed as residing in "non-institutionalized group quarters," and because their income levels were so low (see "Income" section below) it is likely that they were homeless and/or individuals receiving assistance from a New York State social service agency with an office at the WTC.[1]

Table 9-1
Population Characteristics at the World Trade Center Site, 1990 and 2000

Year	Total Population								Median Age[3]
	Total	Race (Percent)[1,2]				Ethnicity (percent)			
		White	Black	Asian	Other	Hispanic	Non-Hispanic		
2000	55	12.7	52.7	32.7	1.8	7.3	92.7		21.3
1990	234	32.1	59.8	2.6	5.6	31.6	68.4		N/A

Notes:
1 The race categories of White, Black, Asian, and Other include both Hispanic and Non-Hispanic populations. The Hispanic category includes Hispanic persons of all races.
2 Race categories were reported differently in the 1990 and 2000 census. In order to draw comparisons, the 2000 census Categories of "Asian Alone" and "Native Hawaiian and Other Pacific Islander Alone" were combined into "Asian" and the categories of "American Indian and Alaska Native alone," "Some other race alone" and "Two or more races" were combined into "Other." For 1990 data, the "Other" category combines the categories of "American Indian, Eskimo, or Aleut" and "Other race."
3 Median age is the weighted average of the median ages for each census tract, block group, or block falling within the subarea. Median age can not be calculated for 1990.

Source: U.S. Department of Commerce, Bureau of the Census, 2000 Census, Summary File 1 and 1990, Summary File 1.

Housing—Project Site

No housing units existed on the Project Site in 2000 or 1990.

Income—Project Site

As described above, the 1990 and 2000 censuses both report a small group quarters population on the Project Site. In 2000, 48 of the 58 residents had incomes that put them below the poverty level and in 1990, 61 percent or 142 residents were living in poverty. It is reasonable to conclude, therefore, that these individuals were homeless and/or receiving assistance from a social service agency with offices at the WTC, rather than actually living on the site.

Population—Primary Study Area

In 2000, there were 12,079 people living in the primary study area. The vast majority of residents lived in BPC, which had a total population of about 7,950. Approximately 75 percent of the total study area population was White, and over 16 percent was Asian. Only 5.3 percent of the population was classified as Hispanic. This contrasts sharply with the racial profile of Manhattan as a whole, which was approximately 54 percent White, 17 percent Black, and 9

[1] According to the U.S. Census Bureau, examples of non-institutionalized group quarters include college dormitories, military barracks, group homes, missions, and shelters.

percent Asian, with 27.2 percent of the total population classified as Hispanic.[1] For all subareas except for Broadway Corridor, the White population constituted a smaller percent of total population in 2000 than it did in 1990, while the Asian population grew as a percentage of the total population over that same decade. The average median age (34.8 for the study area) was fairly consistent across neighborhoods.

Table 9-2 presents characteristics of the primary study area population in 1990 and 2000. For more information on the population characteristics of the primary study agenda, see Chapter 20, "Environmental Justice," section 20.3.1.

Table 9-2
Population Characteristics in the Primary Study Area, 1990 and 2000

Primary Study Area	Total Population							Median Age[4]
	Total	Race (Percent)[1,2]				Ethnicity (Percent)[1]		
		White	Black	Asian	Other	Hispanic	Non-Hispanic	
2000								
North of WTC Site	1,601	75.8	3.8	13.9	6.5	5.0	95.0	36.0
Broadway Corridor	1,385	75.7	3.1	16.2	5	4.4	95.6	32.2
Greenwich South Corridor	1,142	75.4	7.7	7.4	9.5	6.8	93.2	32.4
Battery Park City	7,951	75.0	3.0	18.0	4.1	5.3	94.7	35.4
Primary Study Area Total	12,079	75.2	3.6	16.2	5.0	5.3	94.7	34.8
Manhattan	1,537,195	54.4	17.4	9.4	18.9	27.2	72.8	35.7
New York City	8,008,278	44.7	26.6	9.8	18.9	27.0	73.0	34.2
1990								
North of WTC Site[3]	1,218	84.1	4.2	9.9	1.8	5.5	94.5	N/A
Broadway Corridor[3]	497	70.9	10.1	16.2	2.8	7.7	92.3	N/A
Greenwich South Corridor	122	91.8	2.5	4.1	1.6	14.8	85.2	N/A
Battery Park City	5,574	80.6	3.5	14.9	0.9	3.6	96.4	N/A
Total, Primary Study Area	7,411	80.7	4.0	14.0	1.2	4.4	95.6	N/A
Manhattan	1,487,536	58.3	22	7.4	12.3	26.0	74.0	N/A
New York City	7,322,564	52.3	28.7	7	12	24.4	75.6	N/A

Notes:

1 and 2 See notes for Table 9-1 above.

3 Because the 1990 census data is not reported by block, and neighborhood boundaries do not conform with block group boundaries, it was not possible to calculate the exact population or population by race within neighborhood boundaries. The population was derived by calculating the percent of population in each block group living within the neighborhood boundaries in year 2000 and applying that same percent to the 1990 block group population figures. The race percentage is based on racial breakdown of entire block groups into which the neighborhood falls.

4 Median age is the weighted average of the median ages for each census tract, block group, or block falling within the subarea. Median age can not be calculated for 1990.

Source: U.S. Department of Commerce, Bureau of the Census, 2000 Census, Summary File 1 and 1990, Summary File 1.

The primary study area population has gone through some dramatic changes since the 2000 census. In the aftermath of September 11, the population in the primary study area dropped drastically, as people were forced to leave their homes during the beginning phases of the WTC Site cleanup. While some of the area's pre-September 11 residents returned as soon as conditions permitted, others chose to relocate elsewhere, driving vacancy rates upward and keeping the population well below its pre-September 11 level. However, residential grant

[1] The race categories of White, Black, Asian, and Other include both Hispanic and non-Hispanic populations. The ethnic category of Hispanic includes Hispanic persons of all races.

programs were successful in keeping many residents in Lower Manhattan, while enticing former residents to return, and new residents to relocate to Lower Manhattan. As a result, vacancy rates decreased and population began to grow again.

According to the Downtown Alliance, residential vacancy rates in Lower Manhattan have now returned to their pre-September 11 levels.[1] Assuming a) an overall vacancy rate of 5 percent in residential buildings that existed in 2000 as well as those built between 2000 and 2003 (see "Housing" sections below for more detail) and b) that the average housing size remains the same today as it did in 2000, it is estimated that the population in the primary study area has grown by approximately 4,025 persons since the 2000 census. The total population of the primary study area is now approximately 16,100, up 33 percent since 2000. As described below, about 68 percent of this growth occurred in the Greenwich South Corridor subarea.

North of WTC Site

The area north of the WTC Site consists of a variety of land uses, including office, residential, institutional, light industrial/utilities, and open space, as well as vacant land. It is a transition zone between the mainly commercial office buildings to the south and the more residential and institutional development in Tribeca to the north.

In 2000, the North of WTC Site subarea contained approximately 1,600 people, an increase of 24 percent or 383 people over its 1990 population. Like other subareas in the primary study area, the population is predominately White (73 percent).

Since the 2000 census, the estimated population living in the North of WTC Site subarea has increased by over 25 percent to almost 2,040.

Broadway Corridor

The Broadway Corridor subarea is dominated by office and other commercial uses. Class A and B office buildings line Broadway as well as Church Street/Trinity Place, and Nassau/Broad Streets. The subarea contains several notable buildings, such as 140 Broadway, the Bank of New York Building, the New York Stock Exchange, and 1 Liberty Plaza. Residential uses are concentrated in the northern portion of the corridor east of Broadway. Most residential buildings have retail uses at street level.

The Broadway Corridor experienced a 64 percent population increase between 1990 and 2000, growing from about 500 people in 1990 to 1,385 in 2000. Over the 10-year period, the White population grew as a percent of total population (from 70.9 percent in 1990 to 75.7 percent in 2000) while the Black and Hispanic populations decreased in relative terms.

No known housing units have been added to the Broadway Corridor subarea since the 2000 census; its estimated 2003 population remains at 1,385.

Greenwich South Corridor

The Greenwich South Corridor subarea contains a mix of land uses on blocks of varying sizes, including residential, office, educational, and public parking uses as well as the entrance and exit ramps for the Brooklyn Battery Tunnel. In recent years, a number of buildings of various sizes have been converted from office to residential use.

---

[1] Alliance for Downtown New York, *The Downtown Report*, winter 2003.

Of the four subareas in the primary study area, the Greenwich South Corridor is home to the fewest number of people. However, it experienced the most dramatic growth between 1990 and 2000, growing its population from 122 to 1,142 over the 10-year period. It is also the only subarea in which the Black population represented a greater percent of the population in 2000 than it did in 1990. In 2000, the Greenwich South Corridor was 7.7 percent Black (compared with an average of 3.6 percent in the primary study area) while in 1990 it was only 2.5 percent Black.

Of all subareas in the primary study area, the Greenwich South Corridor has seen the greatest population increase since the 2000 census. Since 2000, the subarea has grown by approximately 2,730 people, bringing its estimated 2003 population to 3,870.

<u>*Battery Park City*</u>

The BPC subarea includes a multitude of modern, mid- to high-rise residential apartment buildings. Additions to the residential building stock are ongoing; buildings currently under construction include 20 River Terrace and two buildings on the east side of North End Avenue. In addition to its residential base, the area also contains two hotels, various cultural facilities, and extensive open space.

Of the subareas in the primary study area, BPC experienced the greatest absolute rise in population between 1990 and 2000—an increase of approximately 2,400 people. This is due to the addition of approximately 1,350 housing units in several large buildings constructed in Battery Park City over the 10-year period.

Between 2000 and 2003, the BPC subarea grew by roughly 857 people to about 8,810.

Housing—Primary Study Area

As illustrated in Table 9-3, there were 7,723 housing units in the primary study area in year 2000. Of those, 20 percent were owner-occupied and 80 percent were renter-occupied—a ratio that mirrors the overall Manhattan housing market. Unlike the Manhattan market, a relatively large portion of all housing units in the primary study area were vacant, 16.1 percent. This rate was more than twice the vacancy rate for Manhattan and almost three times the rate for New York City; it may have been affected by the substantial number of units that were added to the housing supply late in the 1990's (see below).

The primary study area's median contract rent (or weighted average of median contract rents for all subareas, as explained in Note 1 of Table 9-3) of $1,796 per month was over twice the median rent for Manhattan.[1] The median home value of $399,072 was approximately 10.5 percent higher than the median for Manhattan and 80 percent higher than the median for New York City.

[1] According to the U.S. Census Bureau, median contract rent is "the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included. For vacant units, it is the monthly rent asked for the rental unit at the time of interview."

Table 9-3
Housing Characteristics in the Primary Study Area, 1990 and 2000

Primary Study Area	Total Housing Units	Housing Vacancy (Percent)	Housing Tenure (Percent)		Median Contract Rent [1, 3]	Median House Value[1, 2, 3]
			Owner	Renter		
2000						
North of WTC Site	761	8.3	58.9	41.1	$1,510	$548,133
Broadway Corridor	841	11.8	16.7	83.3	$1,220	$478,080
Greenwich South Corridor	739	15.8	0.8	99.2	$2,000	$187,500
Battery Park City	5,382	17.9	17.7	82.3	$1,873	$318,600
Primary Study Area Total	7,723	16.1	20.0	80.0	$1,796	$399,072
Manhattan	798,144	7.5	20.1	79.9	$740	$361,100
New York City	3,200,912	5.6	30.2	69.8	$646	$221,200
1990						
North of WTC Site	672	18.1	51.2	48.8	$1,199	N/A
Broadway Corridor	590	7.9	29.4	70.6	$1,237	N/A
Greenwich South Corridor	89	10.1	0.0	100.0	$670	N/A
Battery Park City	4,032	16.3	19.6	80.4	$1,319	N/A
Primary Study Area Total	5,383	17.0	24.3	75.7	$1,287	N/A
Manhattan	785,127	8.8	17.9	82.1	$630	N/A
New York City	2,992,169	5.8	26.6	71.4	$590	N/A

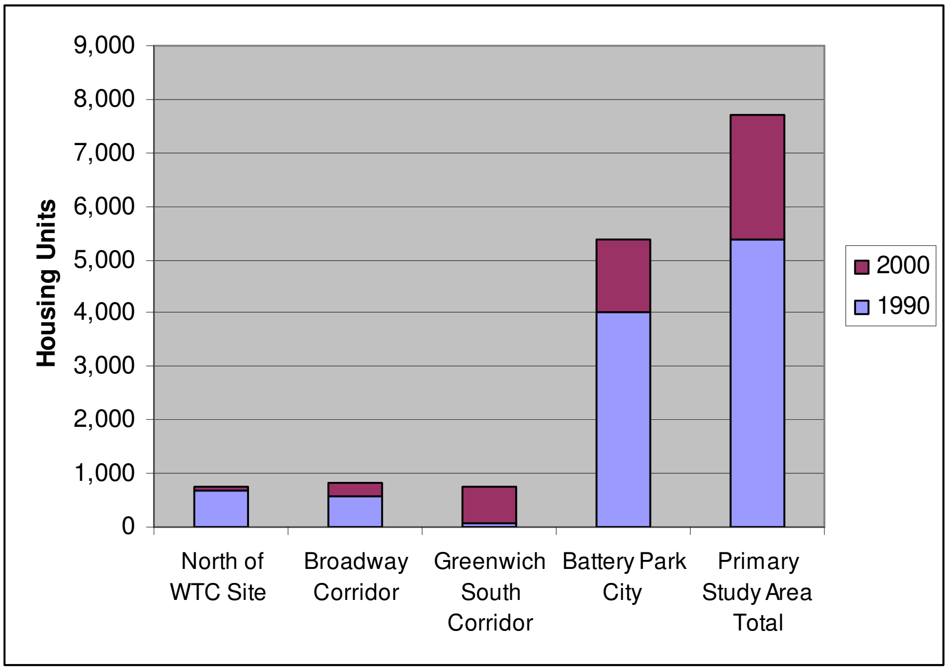
Notes:
1 Values were calculated by taking the weighted average of median # of rooms, median contract rent, and median house value of all the census block groups in a given study area. Because this data is available only at the block group level and block group boundaries do not always align with subarea boundaries, the medians are not exact. Block groups were included or excluded depending on how much of the block group lay within the subarea and whether the housing in the block group was consistent in character with housing in other parts of the subarea.
2 The 1990 median home value is not reported because the 1990 value was based on “specified owner-occupied housing units” only, while the 2000 median was based on all owner-occupied housing units. The two data sets are not comparable.
3 All 1990 values were converted to 2000 constant dollars using the U.S. Department of Labor’s Consumer Price Index for the “New York-Northern New Jersey-Long Island” area.

Source: U.S. Department of Commerce, Bureau of Census, 1990 and 2000 Census, Summary File 1 and Summary File 3.

Between 1990 and 2000, the housing stock in the primary study area increased much faster than it did in Manhattan or New York City. While the number of housing units in the primary study area increased by 44 percent (2,340 units) over this timeframe, the Manhattan housing market grew by only 1.6 percent, and the New York City market, by 6.9 percent. As illustrated in Figure 9-5, the majority of this growth occurred in the BPC and Greenwich South Corridor subareas, which grew by 2,000 units between 1990 and 2000 as new buildings containing anywhere from 150 to 350 units were constructed in BPC, and the Greenwich South Corridor subarea gained housing units in new buildings (such as the 292-unit building on 21 West Street) and renovated/converted structures.

As the number of units increased from 1990 to 2000, the primary study area housing market became more heavily dominated by rental units, shifting from 75.7 percent to 80 percent renter-occupied. The median rent increased by approximately $510 between 1990 and 2000. The overall vacancy rate decreased slightly over the 10-year period, from 17 percent in 1990 to 16 percent in 2000, but remained significantly higher than the vacancy rates for Manhattan and New York City (7.5 percent and 5.6 percent, respectively, in 2000).

Figure 9-5
Housing Units in Primary Study Area, 1990 and 2000



Since the 2000 census, the primary study area has gained another 2,770 units. Approximately 60 percent of those, or 1,690 units, were built in the Greenwich South Corridor. Another 836 units were added to BPC, and about 245 to the North of WTC subarea. Outside of BPC where all, or almost all, new units are in newly constructed buildings, many new units in the primary study area are in buildings that were recently converted from commercial to residential use. Most new units are upscale, with rents equal to or higher than the median rents for their respective subareas.

North of WTC Site

In 2000, the North of WTC Site subarea included 761 housing units, 448 of which were owner-occupied (most of the larger residential buildings in the area contain condominium units) and 313 were renter-occupied. The subarea had a much higher percentage of owner-occupied units than any other subarea in the primary study area and Manhattan as a whole (60 percent in 2000) and its 8.3 percent vacancy rate was almost half of the vacancy rate for the primary study area.

Between 2000 and 2003, approximately 245 housing units were added to the North of WTC Site subarea. The majority of those are located in two buildings: one at 53 Park Place (116 units) and another at 270 Broadway (87 units).

Broadway Corridor

With 841 units in year 2000, the Broadway Corridor encompasses approximately 11 percent of the primary study area's housing units. The median contract rent in the area was $1,220 in 2000, lower than any other subarea in the primary study area but still approximately 60 percent higher than the $740 median rent in Manhattan as a whole.

No known residential units have been constructed or converted in the Broadway Corridor since the 2000 census.

Greenwich South Corridor

There were 739 housing units in Greenwich South Corridor in 2000. Almost all of these units (99 percent) were renter-occupied, and the area's median contract rent of $2,000 per month was higher than the median rent for any other subarea. From 1990 to 2000, the Greenwich South Corridor gained 1,690 housing units, increasing its housing stock to approximately 1,430 units. Most of this growth can be attributed conversion of non-residential building to residential space. Examples of recent conversions include: 21 West Street (292 units), 17 Battery Place (500 units), and 75 West Street (221 units).

The Greenwich South Corridor has continued its fast-growth trend since the 2000 census, gaining 1,690 units since 2000. Five hundred of those units are at 17 Battery Place, a building converted to residential use in 2001. An additional 461 and 292 units are located in 19 Rector Street and 21 West Street, respectively. Both buildings, like 17 Battery Place, are residential conversions.

Battery Park City

With 5,382 units in year 2000, BPC contains approximately 70 percent of all housing units in the primary study area. About 82 percent of the units are rental, and 18 percent are owner-occupied. Median contract rent in 2000 was $1,873—only slightly lower than the median rent in Greenwich South Corridor. Though the Greenwich South Corridor experienced the greatest percent growth in units between 1990 and 2000, BPC experienced the most absolute growth—an increase of 1,350 units over the 10-year period.

Since the 2000 census, BPC has gained another 836 housing units in three buildings: 20 River Terrace, 22 River Terrace, and 13 BPC South.

Households and Income—Primary Study Area

In 2000, there were 6,481 households in the primary study area, and the average household size was 2.0 people.[1] Almost 70 percent of all households (4,419 in number) were located in BPC. The study area's median household income[2] of approximately $106,360 was about 125 percent more than the median household income for Manhattan, and the poverty rate in the area was low (6.8 percent in the study area, compared with 20.5 percent in Manhattan).[3] Table 9-4 presents income characteristics for each subarea in the primary study area.

---

[1] According to the U.S. Census Bureau, a household includes "all the people who occupy a housing unit as their usual place of residence" and household size reflects "the total number of people living in a housing unit."

[2] The median income for the primary study area represents a weighted average of the median incomes of all subareas in the primary study area. The median income for each subarea is the weighted average of median incomes of all census blocks or block groups in the subarea.

[3] The Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level."

Table 9-4
Household and Income Characteristics in the Primary Study Area, 1990 and 2000

Primary Study Area	Housing Characteristics		Income Profile[3]	
	Total Households	Average Household Size	Median Household Income[1]	Persons Below Poverty (Percent)[2]
2000				
North of WTC Site	698	2.1	$127,262	3.7
Broadway Corridor	742	1.9	$88,949	9.6
Greenwich South Corridor	622	1.7	$94,809	15.2
Battery Park City	4,419	1.8	$107,611	5.5
Primary Study Area Total	6,481	1.8	$106,362	6.8
Manhattan	738,644	2.0	$47,030	19.4
New York City	3,021,588	2.6	$38,293	20.8
1990				
North of WTC Site	541	2.1	$94,505	5.3
Broadway Corridor	235	1.9	$67,101	11.3
Greenwich South Corridor	80	1.5	$33,175	0.0
Battery Park City	3,373	1.7	$94,828	3.9
Primary Study Area Total	4,229	1.8	$92,080	5.3
Manhattan	716,811	2.0	$42,511	20.5
New York City	2,816,274	2.5	$39,297	19.3

Notes:
1 The median income represents a weighted average of the median incomes of all the census blocks or block groups in the subarea.
2 The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level."
3 All 1990 values were converted to 2000 constant dollars using the US Department of Labor's Consumer Price Index for the "New York-Northern New Jersey-Long Island" area.
Source: U.S. Department of Commerce Bureau of the Census, 1990 and 2000 Census, Summary Files 1 and 3.

Between 1990 and 2000, the primary study area gained a total of 2,252 households, an increase of 53.3 percent. Median household income increased by 15.5 percent, from $92,080 in 1990 to $106,362 in 2000. As illustrated in Figure 9-6, the most drastic increase in household income occurred in the Greenwich South Corridor, the subarea that also experienced the most dramatic growth in number of households.

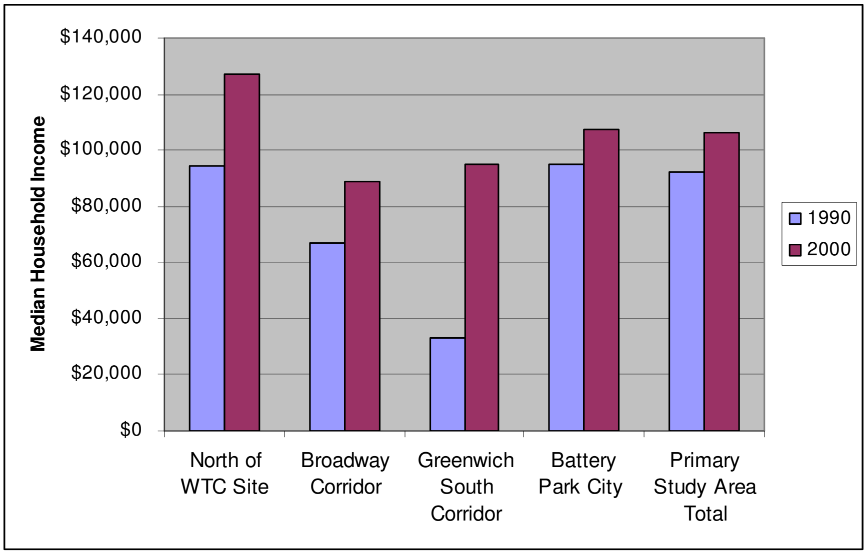
North of WTC Site

The North of WTC Site subarea included 698 households in 2000, or approximately 11 percent of all households in the primary study area. The area had a larger household size, higher median income, and lower poverty rate than any other subarea in the primary study area. Average household size in the area was 2.1; median household income for the subarea was $127,262 (significantly higher than the $106,362 median for the study area as a whole); and the poverty rate was 3.7 percent.

Broadway Corridor

In 2000, households in the Broadway Corridor subarea numbered 698 and had an average household size of 1.9. The median income of $88,949 was the lowest of all subareas in the primary study area, but still almost 90 percent higher than the median income for Manhattan. Approximately 10 percent of the population was below the poverty line in 2000.

Figure 9-6
Median Household Income, Primary Study Area, 1990 and 2000



Greenwich South Corridor

The Greenwich South Corridor included 622 households in year 2000, 542 (or about 675 percent) more than it did in 1990. Household income also increased dramatically in the subarea from 1990 to 2000. In 1990, median household income was $33,175; by 2000, it had grown to $94,809. The subarea's percentage growth in both number of households and median income was larger than in any other subarea in the primary study area.

Battery Park City

As described above, in 2000 BPC contained almost 70 percent of all households in the primary study area. The number of households in the subarea increased by 1,046, or 31 percent, between 1990 and 2000, and the average household size increased slightly from 1.7 to 1.8 persons per household. BPC's year 2000 median household income of $107,611 was second only to the North of WTC subarea, and the poverty rate of 5.5 percent was lower than the overall rate for the primary study area.

Population—Secondary Study Area

In 2000, there were 46,539 people living in the secondary study area. Over 55 percent of those people lived in Chinatown, which had a population of approximately 25,700. Overall, Asian residents make up the greatest percent of the total population (representing 46.5 percent of all residents), but this is not characteristic of all the subareas; rather, it is attributable to the large absolute number of residents in Chinatown, where the population is 74.2 percent Asian.

The average median age in the secondary study area is approximately 38.5. Median ages range from about 33 in Civic Center to 40 in Tribeca.[1]

[1] As described in note 4 of Table 9-5, the average median age is the weighted average of the median ages for each census tract, block group, or block falling within the subarea.

Table 9-5 presents 1990 and 2000 population characteristics for the secondary study area. For more information on the population characteristics of the secondary study area, see Chapter 20, “Environmental Justice,” section 20.3.1.

Table 9-5
Population Characteristics in the Secondary Study Area, 1990 and 2000

Secondary Study Area	Total Population							Average Median Age[4]
	Total	Race and Ethnicity (Percent)[1,2]				Ethnicity (Percent)[1]		
		White	Black	Asian	Other	Hispanic	Non-Hispanic	
2000								
Tribeca	8,797	83.5	5.1	6.9	4.5	6.6	93.4	39.8
Civic Center	2,051	34.9	45.4	8.4	11.3	36.9	63.1	33.1
Chinatown	25,691	14.0	4.9	74.2	6.9	10.2	89.8	39.6
Brooklyn Bridge to Battery Park	10,000	68.5	5.9	18.2	7.4	7.1	92.9	36.0
Secondary Study Area Total	46,539	39.8	6.9	46.5	6.7	10.0	90.0	38.5
Manhattan	1,537,195	54.4	17.4	9.4	18.9	27.2	72.8	35.7
New York City	8,008,278	44.7	26.6	9.8	18.9	27.0	73.0	34.2
1990								
Tribeca[3]	7,508	80.9	11.9	4.5	2.7	9.0	91.0	N/A
Civic Center	1,536	33.4	39.5	5.2	21.9	34.1	65.9	N/A
Chinatown[3]	23,939	17.3	6.6	69.2	6.9	13.5	86.5	N/A
Brooklyn Bridge to Battery Park[3]	5,635	73.3	10.2	13.7	2.4	8.8	91.2	N/A
Secondary Study Area Total	38,618	38.5	9.5	46.0	6.0	12.8	87.2	N/A
Manhattan	1,487,536	58.3	22.0	7.4	12.3	26.0	74.0	N/A
New York City	7,322,564	52.3	28.7	7.0	12.0	24.4	75.6	N/A

Notes:
1 and 2 See notes for Table 9-1 above.
3 Because the 1990 census data is not reported by block, and neighborhood boundaries do not conform with block group boundaries, it was not possible to calculate the exact population or population by race within neighborhood boundaries. The population was derived by calculating the percent of population in each block group living within the neighborhood boundaries in year 2000 and applying that same percent to the 1990 block group population figures. The race percentage is based on racial breakdown of entire block groups into which the neighborhood falls.
4 Average median age is the weighted average of the median ages for each census tract, block group, or block falling within the subarea. Average median age can not be calculated for 1990.
Source: U.S. Department of Commerce, Bureau of the Census, 2000 Census, Summary File 1 and 1990, Summary File 1.

Like the primary study area, the secondary study area has experienced some significant population changes since the 2000 census. Though residents in the secondary study area were able to return to their homes sooner after September 11, than were residents in the primary study area, some residents of the secondary study area chose to relocate out of Lower Manhattan, as their neighbors closer to the WTC Site did. The effect was that vacancy rates increased and overall population decreased in the aftermath of September 11, and it took some time for the population to increase again to its pre-September 11 level.

According to the Downtown Alliance, the residential vacancy rate for Lower Manhattan is currently approximately 5 percent, back at the pre-September 11 level. Assuming a 5 percent vacancy rate and average household sizes comparable to what they were in 2000, and accounting for housing development that has occurred since the 2000 census (see the “Housing” section below for further detail), the 2003 secondary study area population is estimated to be 51,972. This represents an increase of about 5,430 (or 11 percent) over the 2000 population. As described below, over 62 percent of this growth occurred in the Brooklyn Bridge to Battery Park subarea.

Tribeca

The Tribeca subarea is characterized by residential buildings, with commercial, institutional, industrial, and open space uses dotted throughout the subarea. The residential stock is diverse; late-19th-century corniced loft buildings are interspersed with new mid-rise apartment buildings, and many of the smaller commercial buildings in the area have recently been converted to residential use with loft-style apartments. Residential buildings host a variety of ground-floor retail establishments, including banks, dry cleaners, and convenience-goods stores. The area also has a high concentration of art galleries, boutique shops, bars, and restaurants.

Tribeca had a year 2000 population of 8,797, which represents a 17 percent increase over its 1990 population. Approximately 83.5 percent of Tribeca's residents in 2000 were White, 5.1 percent were Black, 6.9 percent Asian, and 6.6 percent were Hispanic. From 1990 to 2000, Tribeca's Black population decreased from 11.9 percent of the population to 5.1 percent, and the Hispanic population decreased from 9.0 percent to 6.6 percent. All other racial groups reported on saw moderate increases in percent representation.

The population of Tribeca has a higher approximate median age than all other subareas in the secondary study area and, in fact, all subareas in Lower Manhattan. Tribeca's median age of just under 40 is comparable to Chinatown's median age, but higher than the approximate median age in Civic Center (33) and the median age in the Brooklyn Bridge to Battery Park subarea (37).

Since 2000, the population in the Tribeca subarea has increased by approximately 9 percent, or 780 people; the area's 2003 population is roughly 9,575.

Civic Center Area

The Civic Center subarea is characterized by a high concentration of institutional and office uses mainly related to federal and city government. Courthouses line Centre Street, and several municipal office buildings in the subarea house various city, state, and federal agencies. Several small parks are located near the courthouses.

With a 2000 population of 2,051, the Civic Center subarea encompasses only 4.4 percent of the secondary study area's residents. The area is notable, however, because its population is 45.4 percent Black and 36.9 percent Hispanic—a marked contrast to the other subareas whose populations are between 4.9 percent and 5.9 percent Black, and 6.6 and 10.2 percent Hispanic. This inconsistency is probably attributable to the presence of a New York State Children and Family Services office at 80 Center Street. It is not uncommon for individuals receiving social services to list the office providing them with assistance as their home address.

No known housing units have been added to the Civic Center subarea since 2000.

Chinatown

The Chinatown subarea includes mainly commercial and residential uses in small, older buildings, and large residential towers. High concentrations of commercial and mixed-use buildings exist throughout the subarea, concentrated along Canal Street between Broadway and Pearl Street, and along the north-south streets throughout the subarea. Restaurants, fresh food markets, tea and rice shops, jewelry shops and garment factories are the main businesses in Chinatown, and the area's distinct character and mix of businesses makes it a popular tourist destination. The eastern and southern sections of the subarea include large-scale residential developments, such as Chatham Towers, the Governor Alfred E. Smith Houses along the East River, and Confucius Plaza, a large, middle-income residential building at the Bowery and Division Street.

Chinatown includes over 55 percent of the secondary study area population, or approximately 25,700 residents. Though Chinatown grew by 1,752 people between 1990 and 2000, this increase represented only a 7.3 percent increase, which is a modest jump compared with increases of 17 to 78 percent experienced by other subareas in the secondary study area. Chinatown is 74.2 percent Asian, up from 69.2 percent in 1990.

Between 2000 and 2003, the population of the Chinatown subarea increased by approximately 1,250, or 5 percent. Its current population is estimated to be 26,940.

<u>*Brooklyn Bridge to Battery Park*</u>

The Brooklyn Bridge to Battery Park subarea is largely commercial, with pockets of residential, institutional, entertainment, and open space uses. Tall office towers—mainly housing financial service institutions, law firms, and insurance companies—occupy the southern and western portions of the subarea. In recent years, there has been a trend toward residential development in the subarea (through both new construction and conversions of older commercial buildings) and the residential population has grown. The eastern portion of the subarea includes South Street Seaport, a major tourist destination with a range of retail, dining, entertainment, and educational opportunities, and the Fulton Fish Market, which serves many New York City restaurants.

In 2000, there were 10,000 people living in the Brooklyn Bridge to Battery Park subarea. The population had a median age of 36 and was approximately 68.5 percent White, 5.9 percent Black, 18.2 percent Asian, and 7.4 percent Other, with 7.1 percent of the population classified as Hispanic.

From 1990 to 2000, the population of the Brooklyn Bridge to Battery Park area grew enormously—by approximately 78 percent from 5,635 people in 1990 to 10,000 in 2000. With this growth in population came some change in the racial profile of the subarea's residents. In 1990, the area was about 73.3 percent White, 10.2 percent Black, 13.7 percent Asian, and 9 percent Hispanic; in 2000, it was 68.5 percent White, 5.9 percent Black, 18.2 percent Asian, and 7.1 percent Hispanic.

Approximately 68 percent of the population growth in the secondary study area since 2000 has occurred in the Brooklyn Bridge to Battery Park subarea. Since the 2000 census, population in the subarea has increased by about 34 percent, to an estimated 13,404 residents.

Housing—Secondary Study Area

The secondary study area included a total of 19,420 housing units in year 2000. Almost half of all units were located in Chinatown, and the remainder, with the exception of 91 units in Civic Center, were divided almost evenly between the Tribeca and the Brooklyn Bridge to Battery Park subareas. Overall, the secondary study area had a renter- to owner-occupied ratio of 80/20 (as Manhattan does), but this ratio varied significantly across subareas, with Tribeca containing a higher proportion of owner-occupied units than other areas, and Chinatown and Civic Center containing more rental units. The vacancy rate for the secondary study area was 6.6 percent, slightly lower than the rate for Manhattan and somewhat higher than the rate for New York City.

Median contract rent in the study area was approximately $850, but rents ranged from $170 in the Civic Center to $1,413 in Brooklyn Bridge to Battery Park. The median home value was approximately $550,040 but ranged from $203,094 in Chinatown to $782,455 in Tribeca.

Between 1990 and 2000, the housing stock in the secondary study area increased by 25 percent, or approximately 3,900 units—a large proportional increase when compared with the 1.6 percent and 6.9 percent increases that occurred in Manhattan and New York City, respectively, over the same period. The majority of the growth occurred in the Brooklyn Bridge to Battery Park subarea, which gained 1,823 units between 1990 and 2000. In all subareas except for Civic Center, median contract rents increased between 1990 and 2000—quite considerably for Tribeca (increase of $547) and Brooklyn Bridge to Battery Park (increase of $712).

Since the 2000 census, the secondary study area has gained approximately 3,005 housing units. About 70 percent of those units (2,108 in number) were added to the Brooklyn Bridge to Battery Park subarea. Another 16 percent were constructed in Chinatown and 14 percent in Tribeca.

Table 9-6 presents housing characteristics in the secondary study area for the year 2000.

Table 9-6
Housing Characteristics in the Secondary Study Area, 1990 and 2000

Secondary Study Area	Total Housing Units	Housing Vacancy (Percent)	Housing Tenure (Percent)		Median Contract Rent[1,3]	Median House Value[1,2,3]
			Owner	Renter		
2000						
Tribeca	4,786	8.3	32.7	67.3	$1,254	$782,455
Civic Center	91	2.2	1.1	98.9	$170	N/A
Chinatown	9,465	5.4	11.0	89.0	$449	$203,094
Brooklyn Bridge to Battery Park	5,078	8.0	25.0	75.0	$1,413	$548,058
Secondary Study Area Total	19,420	6.6	20.0	80.0	$850	$550,039
Manhattan	798,144	7.5	20.1	79.9	$740	$361,100
New York City	3,200,912	5.6	30.2	69.8	$646	$221,200
1990						
Tribeca	3,479		27.6	72.4	$707	N/A
Civic Center	60	5.0	40.4	59.6	$750	N/A
Chinatown	8,723	3.8	7.4	92.6	$392	N/A
Brooklyn Bridge to Battery Park	3,255	5.7	35.7	64.3	$701	N/A
Secondary Study Area Total	15,517		18.0	82.0	$506	N/A
Manhattan	785,127	8.8	17.9	82.1	$630	N/A
New York City	2,992,169	5.8	26.6	71.4	$590	N/A

Notes:

1 Values were calculated by taking the weighted average of median # of rooms, median contract rent, and median house value of all the census block groups in a given study area. Because this data is available only at the block group level and block group boundaries do not always align with subarea boundaries, the medians are not exact. Block groups were included or excluded depending on how much of the block group lay within the subarea and whether the housing in the block group was consistent in character with housing in other parts of the subarea.

2 The 1990 median home value is not reported because the 1990 value was based on “specified owner-occupied housing units” only, while the 2000 median was based on all owner-occupied housing units. The two data sets are not comparable.

3 All 1990 values were converted to 2000 constant dollars using the US Department of Labor’s Consumer Price Index for the “New York-Northern New Jersey-Long Island” area.

Source: U.S. Department of Commerce, Bureau of Census, 1990 and 2000 Census, Summary File 1 and Summary File 3.

Tribeca

The Tribeca subarea contained 4,786 units in year 2000, 1,565 of which were owner-occupied. The fact that almost one-third of all housing units in Tribeca are owner-occupied distinguishes the area from others in the secondary study area and from Manhattan, in which only 20 percent of all units are owner-occupied. The median contract rent in Tribeca increased over 75 percent from 1990 to 2000, from $707 in 1990 to $1,254 in 2000.

After the 2000 census, Tribeca gained another 410 units, the majority of which are located in smaller buildings with 30 or fewer units. No buildings with over 50 units were completed in Tribeca between 2000 and 2003.

<u>Civic Center</u>

As of the 2000 census, the Civic Center contained only 91 housing units, 31 more than it did in 1990. Virtually all of the units are renter-occupied and only 2.2 percent are vacant. Median contract rent appears as $170 in the 2000 census. However, as discussed in the "Secondary Study Area—Population" section above, there is a New York State Children and Family Services office in this subarea, and it is not uncommon for clients to list social service agencies as their home address. If some of those clients are homeless or living with family members (paying no rent) their "rents" might bring the median rent down significantly.

No new housing units have been built or converted in the Civic Center subarea since the 2000 census.

<u>Chinatown</u>

With 9,465 housing units, Chinatown included over half of all housing in the secondary study area in year 2000. Only 11 percent of these units were owner-occupied, about half the average for the study area and Manhattan as a whole. The area's median contract rent of $449 was also significantly lower than other subareas and, lower than the median rent for both Manhattan and New York City.

Between 2000 and 2003, the Chinatown subarea gained 487 housing units, primarily in buildings at 101 Worth Street (329 units) and 336-344 Broadway (147 units).

<u>Brooklyn Bridge to Battery Park</u>

There were 5,078 housing units in the Brooklyn Bridge to Battery Park subarea in year 2000. The area's 25 percent owner occupancy rate was higher than the average for the study area and the median rent ($1,413) was higher than it was in any other subarea in the secondary study area.

Between 1990 and 2000, the number of housing units increased by 56 percent and the median rent more than doubled. This pattern of rapid growth and rising rents seems to have continued past year 2000; between 2000 and 2003, the subarea gained another 2,108 units, and it appears as though rents in these units are generally high, with one-bedroom apartments in several buildings renting for between $2,000 and $3,000 per month.[1]

Households and Income—Secondary Study Area

According to the 2000 census, the secondary study area contains 18,134 households. Almost 50 percent of all households in the secondary study area (or 8,955 households) are in Chinatown and the remainder is divided fairly evenly between the Tribeca and Brooklyn Bridge to Battery Park subareas; the Civic Center contains only 89 households, or 0.5 percent of all households in the study area. Between 1990 and 2000, the study area gained 3,321 households, the majority of which (1,785 households) were added to the Brooklyn Bridge to Battery Park subarea.

---

[1] *Gabriels Apartment Rental Guide: New York City,* 2003 edition, Gabriel Productions, Inc, New York, NY. 2003.

As indicated in Table 9-7, the average household size in the secondary study area is 2.3 persons. Chinatown's households are the largest, containing an average of 2.7 people, and the Civic Center's households are smallest, containing 1.4 people each. Between 1990 and 2000, the average household size shrank or remained constant in all subareas.

Table 9-7
Household and Income Characteristics in the Secondary Study Area, 1990 and 2000

Secondary Study Area	Housing Characteristics		Income Profile[3]	
	Total Households	Average Household Size	Median Household Income[1]	Persons Below Poverty (Percent)[2]
2000				
Tribeca	4,420	2.0	$97,228	4.4
Civic Center	89	1.4	$8,833	37.5
Chinatown	8,955	2.7	$23,867	33.4
Brooklyn Bridge to Battery Park	4,670	1.7	$57,525	10.4
Secondary Study Area Total	18,134	2.3	$50,432	22.6
Manhattan	738,644	2.00	$47,030	19.4
New York City	3,021,588	2.59	$38,293	20.8
1990				
Tribeca	3,479	2.0	$71,876	7.9
Civic Center	57	2.2	$60,943	12.5
Chinatown	8,392	2.8	$23,936	27.0
Brooklyn Bridge to Battery Park	2,885	1.7	$47,961	14.4
Secondary Study Area Total	14,813	2.4	$40,017	21.2
Manhattan	716,811	2.0	$42,511	20.5
New York City	2,816,274	2.5	$39,297	19.3

Notes:
1 The median income represents a weighted average of the median incomes of all the census blocks or block groups in the subarea. All 1990 values were converted to 2000 constant dollars using the U.S. Department of Labor's Consumer Price Index for the "New York-Northern New Jersey-Long Island" area.
2 The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being "below the poverty level."
3 All 1990 values were converted to 2000 constant dollars using the U.S. Department of Labor's Consumer Price Index for the "New York-Northern New Jersey-Long Island" area.

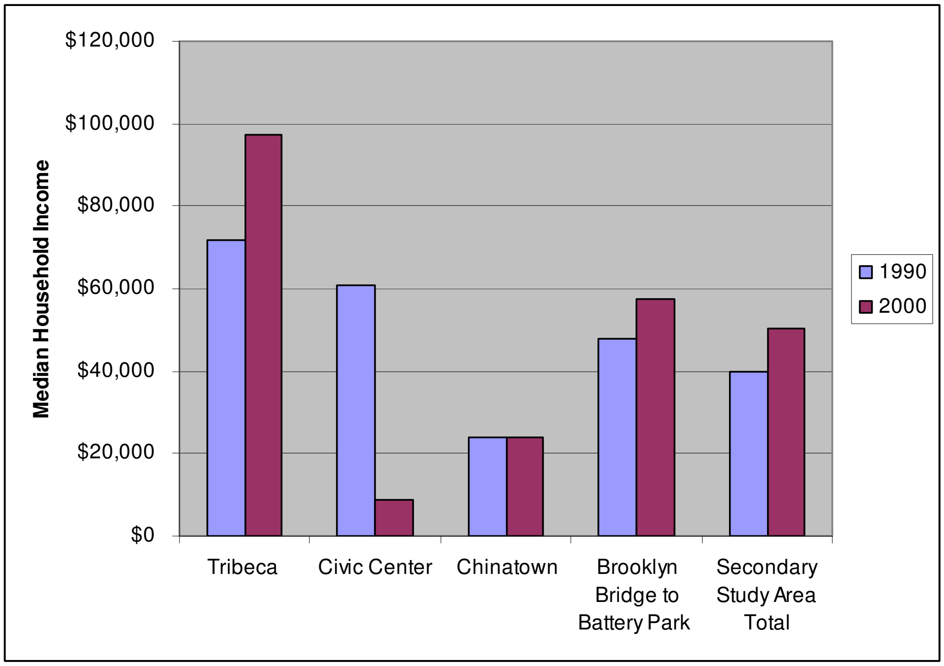
Source: U.S. Department of Commerce Bureau of the Census, 1990 and 2000 Census, Summary Files 1 and 3.

Median household income for the secondary study area was approximately $50,430 in 2000. As illustrated in Figure 9-7, median household incomes increased or remained the same between 1990 and 2000 for all subareas except the Civic Center, which saw a decrease in median income of $52,110. This apparently drastic decrease, however, is due more to differences in data reporting between 1990 and 2000, and the presence of a New York State Child and Family Services office in the Civic Center subarea (see discussion in Civic Center section below for further detail). The most drastic increase in household income occurred in Tribeca—both in terms of absolute increase (an increase of $25,352) and in terms of percent increase (an increase of 26 percent).

Tribeca

In 2000, the Tribeca subarea contained 4,420 households—about 25 percent of all households in the secondary study area, and approximately 27 percent more than the subarea contained in 1990. Average household size in 2000 was 2.0, higher than the average size in Civic Center and Brooklyn Bridge to Battery Park, but lower than the 2.7 average household size in Chinatown.

Figure 9-7
Median Household Income, Secondary Study Area, 1990 and 2000



According to the 2000 census, the median household income in Tribeca is by far the highest of all subareas; at $97,228, it is almost 70 percent higher than the median income in Brooklyn Bridge to Battery Park, the subarea with the next-highest median household income. Tribeca also has the lowest poverty rate (4.4 percent) of all subareas in the secondary study area.

<u>*Civic Center*</u>

With 89 households, the Civic Center contains only 0.5 percent of all secondary study area households. The area also has the smallest household size (1.4 persons per household), the lowest median income ($8,833) and the highest poverty rate (37.5 percent) of all subareas in the secondary study area. From 1990 to 2000, the median household income in the Civic Center decreased from $60,943 to $8,833.

The decrease in income and the high poverty rate can be attributed to two things: a change in how the Census Bureau reported data for that area from 1990 and 2000 and the presence of a social services office in the subarea boundaries. The Census Bureau reports income characteristics only when the sample size is large enough so that individual confidentiality is not compromised. Because the population in the Civic Center subarea is so small, only one of the three census block groups covering the Civic Center subarea was reported on in each of the two census years. However, the block group reported on in 1990 was not the same one reported on in 2000; this could explain some of the income discrepancy. Second, as mentioned in the "Population and Housing" sections above, there is a New York State Children and Family Services office located in the block group reported on in 2000. If a number of individuals receiving assistance from the office listed it as their home address, their incomes could have drastically reduced the median income for the area.

Chinatown

According to the 2000 census, Chinatown contains 8,955 households, or almost 50 percent of all households in the secondary study area. The average household size in the subarea is 2.7 people—higher than the average household size for any subarea in the secondary study area and, in fact, higher than all subareas in Lower Manhattan. The median household income for Chinatown was $23,867 in 2000, $26,475 less per year than the median income for the secondary study area as a whole and approximately $23,160 lower than the median for Manhattan.

Brooklyn Bridge to Battery Park

According to the 2000 census, the Brooklyn Bridge to Battery Park subarea contains 4,670 households, and the average household size is 1.7 persons. The median household income increased by $9,564 between 1990 and 2000, an increase of approximately 17 percent.

COMMERCIAL OFFICE AND RETAIL MARKET—2003 CURRENT CONDITIONS SCENARIO

As one if the largest cities in the world and the most densely developed urban core in the United States, New York City is a major employment center and hosts the headquarters of many national and international corporations. Manhattan, the principle engine for the city's economy, is home to many of the world's leading financial, cultural, medical, and communications employers, and includes the nation's largest Central Business District (CBD) in Midtown Manhattan, as well as the nation's third-largest CBD in Lower Manhattan. Together, Lower Manhattan and Midtown make New York City the business and financial capital of the world. In terms of overall economic output, the city as a whole produced $348.1 billion in 2001, representing over 3.4 percent of the nation's gross domestic product ($10,208.1 billion) during that year.[1]

Over the last four decades, Manhattan has generally retained a fairly constant level of private sector employment (close to 2 million jobs), but its industrial composition has changed dramatically. Following a broader trend that has been experienced in cities across the nation, Manhattan's manufacturing base began to decline steadily after World War II. These losses were compensated by a corresponding growth in the finance, insurance, and real estate (FIRE) and service sectors. Service sector employment grew by 129 percent between 1960 and 2000. Among the reasons for this growth are that within the service sector, vertical expansion is not a deterrent to business (as it is with manufacturing jobs), and Manhattan and the rest of New York City offer excellent access to mass transit.

Commercial Office Real Estate Trends in Lower Manhattan Prior to September 11

Before 1987, the strong local economy and employment in the financial, insurance, and real estate (FIRE) sector resulted in relatively low vacancy rates for Class A office space in Lower Manhattan—12.2 percent in 1985 and 9.8 percent in 1986. However, the recession that followed the economic downturn in 1987 had serious repercussions in the Lower Manhattan real estate market. Reductions in the workforce and downsizing, as well as mergers and a few failures of some prominent players in the financial services and insurance industries were reflected in increasing vacancy rates in Lower Manhattan office space. In 1990, 18 percent of the approximately 108 million square feet of office space in Lower Manhattan was vacant (see Table 9-8).

[1] New York City Comptroller's Office, May 20, 2002.

Table 9-8
Lower Manhattan Historic Office Real Estate Trends

Year	Office	
	Total Square Feet	**Overall Vacancy Rate**
1990	108,027,316	18.0
1995	112,145,593	20.2
2000	107,512,756	3.6

Source: Cushman and Wakefield, 2001 Real Estate and Economic Forecast, November 2000.

At the same time, competition for tenants increased from new office districts featuring modern office buildings with state-of-the-art communications, utilities, and infrastructure developed in Downtown Brooklyn and along the waterfront in Hudson County, New Jersey. These fledgling areas successfully attracted labor-intensive back-office operations from traditional locations in the Financial District. By 1990, when Chase Manhattan Bank and others moved certain back-office operations to MetroTech in Brooklyn, the Class A office space vacancy rate had climbed for the sixth consecutive year. Even Midtown Manhattan, with the sudden advantage of more affordable rents, was able to attract large law firms, investment bankers, and stock exchange members to high-profile addresses—at the expense of Lower Manhattan.

Through the mid-1990s, the overall vacancy rate in Lower Manhattan continued to rise, reaching more than 20 percent by 1995. In an attempt to revive Lower Manhattan's position as an international financial center and at the same time create a 24-hour, 7-day (24/7) neighborhood, the City of New York and business leaders primarily represented by the Downtown-Lower Manhattan Association, Inc. proposed a Lower Manhattan Economic Revitalization Plan. Among its many provisions, the plan offered real estate tax and commercial rent tax abatements for leasing space in older commercial office properties, reduction in energy costs for buildings that made qualified improvements, and real estate tax abatements for the conversion of office properties to residential or mixed use.

Driven by a rebounding economy and associated expansion in the securities industry, and with the remarkably fast growth of a new computer-related software and services industry and Internet "dot com" start-ups, the real estate market in Lower Manhattan made a comeback. Buildings pre-wired for high-speed Internet access and with corporate tax incentives aimed at creating a concentration of new high technology firms produced Silicon Alley. Although Lower Manhattan office space is dominated by financial institutions, three of the largest real estate transactions in 1999 involved Internet/technology companies. By the end of 2000, the overall office vacancy rate in Lower Manhattan had fallen to 3.6 percent, an historic low, and below what is typically considered full occupancy (accounting for vacancy of offices in transition). The vacancy rate of Class A space in that period was 1.6 percent, near an absolute lower limit. The vacancies that occurred in Lower Manhattan were largely in Class B and C space, whose rate still remained relatively high with a collective vacancy rate of 14.0 percent. However, toward the end of 2000 and into 2001, the commercial office market finally began to soften. Manhattan's commercial office vacancy rate for the second quarter of 2001 (just prior to September 11) was nearly twice the level of a year earlier but still relatively low.

Commercial Office Direct Displacement and Tenant Relocation Resulting from September 11

The September 11 attacks on the WTC complex destroyed seven buildings containing approximately 13.4 million square feet of Class A office space (see Figure 9-8 and Table 9-9). In addition to those buildings destroyed, at least 23 properties containing approximately 21.1 million square feet of office space were damaged by the attacks (see Table 9-10). In total, approximately 34.5 million square feet of office space in Lower Manhattan were destroyed or damaged by the September 11 attacks. The approximately 27.8 million square feet of Class A office space destroyed or damaged represented roughly 60 percent of the Class A office space south of Chambers Street.[1] In addition to office space, approximately 0.5 million square feet of retail space were destroyed, a majority of which was in the underground mall of the WTC complex.

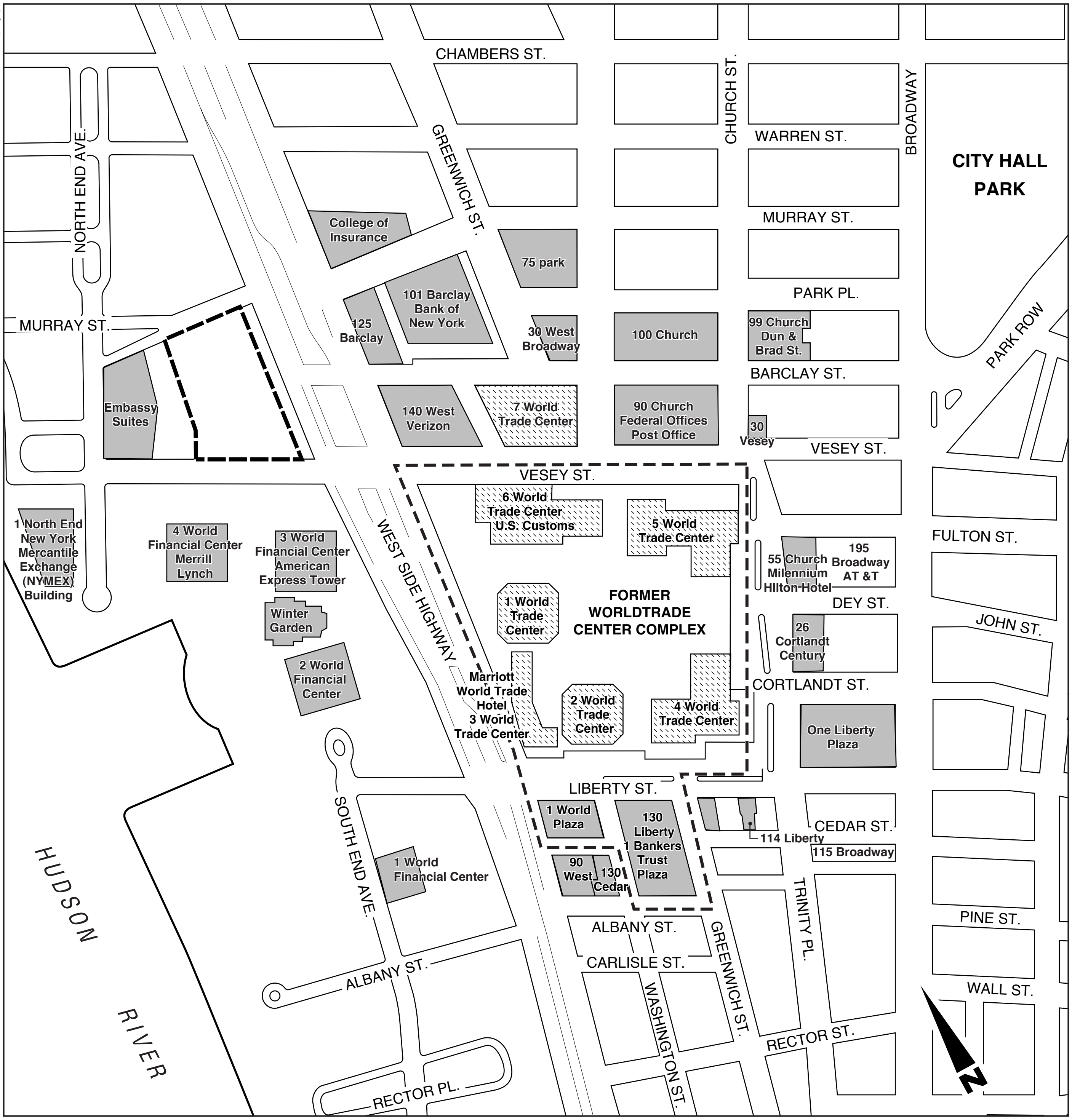
Table 9-9
Office Space Destroyed by September 11
World Trade Center Attacks

Destroyed Class A Office Space	Square Feet Destroyed
1 WTC	4,761,416
2 WTC	4,761,416
4 WTC	576,000
5 WTC	783,520
6 WTC	537,693
7 WTC	2,000,000
Total Class A Office Space Destroyed	**13,420,045**
Source: TenantWise.com, Special Report: Damaged Areas, April 2, 2003.	

According to TenantWise.com, an online real estate company that has closely tracked commercial tenants directly affected by the September 11 attacks, the buildings that were destroyed and damaged contained approximately 608 tenants (450 tenants in destroyed buildings and 158 tenants in damaged buildings). Collectively, the destroyed and damaged buildings contained 186 large corporate tenants (over 10,000 square feet of office space) that occupied approximately 24.3 million square feet, or 70.4 percent, of the total affected office space. Smaller business tenants occupied approximately 8.4 million square feet, or 24.3 percent of the total affected space, while governmental tenants occupied approximately 1.8 million square feet, or 5.2 percent of the total affected space.

[1] The destroyed and damaged property estimates presented are based on analyses conducted by TenantWise.com, an online real estate broker. Damage estimates vary among sources; in a November 15, 2001 report, the New York City Partnership and Chamber of Commerce estimated that 15.2 million square feet were destroyed in the WTC complex, 3.5 million square feet were heavily damaged and would take more than a year to repair, and 10.1million square feet of less heavily damaged office space could be restored within a year. The FDIC estimates that approximately 17.8 million square feet of office space were damaged by the attacks.

1•04



Project Site

Buildings Destroyed on September 11, 2001

Buildings Damaged/Additional Buildings Affected

0 200 500 FEET

SCALE

Buildings Affected by the September 11 Attacks on the World Trade Center

Figure 9-8

Table 9-10
Office Space Damaged by September 11
World Trade Center Attacks

Damaged Office Space	Square Feet Damaged
Class A Office Space	
1 Liberty Plaza	2,121,437
140 Broadway	1,200,000
1 World Financial Center (WFC)	1,461,365
2 WFC	2,591,244
3 WFC	2,263,855
4 WFC	2,083,555
1 Bankers Trust Plaza (130 Liberty)	1,415,086
101 Barclay Street	1,226,000
Total Class A Office Space Damaged	**14,362,542**
Class B Office Space	
22 Cortlandt Street	668,110
90 Church Street	1,126,260
99 Church Street	336,000
100 Church Street	1,030,000
111 Broadway	418,000
115 Broadway	399,000
75 Park Place	564,145
90 West Street	350,000
Total Class B Office Space Damaged	**4,891,515**
Class C Office Space	
140 West Street	1,171,540
30 West Broadway	381,000
24-26 Cortlandt Street	25,000
106 Liberty Street	18,000
110 Liberty Street	6,000
130 Cedar Street	135,000
114 Liberty Street	69,000
Total Class C Office Space Damaged	**1,805,540**
Total Damaged Office Space (A/B/C)	**21,059,597**

Source: TenantWise.com, Special Report: Damaged Areas, April 2, 2003.

Tenants that were directly displaced by the September 11 attacks have either re-occupied damaged space as it has become available, leased new space, or backfilled into other unaffected space that was unoccupied or made available within a tenant's existing real estate portfolio. TenantWise.com has conducted ongoing research into the relocation plans of all tenants directly affected by September 11. The following summarizes TenantWise.com's research, and identifies where tenants from the affected office space have relocated as of September 2003:

- Tenants within 18.1 million square feet, or 52 percent of the total affected 34.5 million square feet, remain in Lower Manhattan (south of Chambers Street). Of this amount, approximately 13.8 million square feet, or about 40 percent of the total affected office space, will be re-occupied as tenants return to once-damaged properties. Approximately 2.3 million square feet of the affected office space was backfilled within Lower Manhattan (i.e., space unoccupied or made available within a tenant's existing real estate portfolio), and 2.0 million square feet was leased in Lower Manhattan office buildings that did not suffer physical damage from the attacks.

- Tenants within 16.3 million square feet, or approximately 47 percent of the total affected office space, have left Lower Manhattan. Of this amount, 10.4 million square feet was leased outside of Lower Manhattan, while 5.9 million square feet was backfilled outside of Lower Manhattan.
- Tenants within a total of 0.4 million square feet, or 1 percent of the total affected 34.5 million square feet, have not made their relocation plans known, or are undecided.

Table 9-11 presents a summary of the relocation decisions for tenants of both the destroyed and damaged buildings. As of September 2003, only 91 of the 186 large corporate tenants (tenants occupying over 10,000 square feet of office space) forced to relocate immediately after September 11 had returned to Lower Manhattan.[1]

Table 9-11
Large Corporate Tenant Relocation Resulting from September 11 World Trade Center Attacks

	Lower Manhattan Existing	Lower Manhattan Other	Midtown	New Jersey	Elsewhere*	Undecided	Total
Tenants from Destroyed Buildings	N/A	17	39	11	7	0	74
Tenants from Damaged Buildings	64	10	32	1	3	1	111

Notes: *"Elsewhere" is defined as non-New Jersey and outside of Manhattan.
Reflects tenants that occupied 10,000 square feet or greater. Companies with multiple locations are counted in primary destination locale.
Source: TenantWise.com Special Report: WTC Tenant Relocation Summary, September 11, 2003.

While most of the relocations have been to Midtown Manhattan, some corporations have relocated, or are considering relocating, at least part of their operations out of New York City. For example, Morgan Stanley, which had 3,500 employees in the WTC towers, purchased a Westchester County property and moved 2,000 jobs there. Most of Morgan Stanley's 14,000 employees will remain in its current locations in Midtown and Brooklyn. Goldman Sachs, long based in Lower Manhattan, announced plans to move its equity trading division to the New Jersey waterfront in Hudson County. Tenants considering and acting on such moves cite a variety of reasons relating to the September 11 attacks. A New York City Partnership report claims that interviews with industry leaders demonstrate that managers are focused on obtaining improved security, operating out of multiple locations, and ensuring that their core business services have alternative telecommunications and energy systems to rely on in the event of a natural or manmade disaster. TenantWise.com's discussions with larger tenants revealed that

[1] Information obtained from TenantWise website: http://www.tenantwise.com. Website last accessed on October 28, 2003.

decisions were heavily based on concerns regarding security, transportation, employee health and productivity, redundancy of operations, and contingency planning.

In terms of small businesses, a survey of the 88 small businesses that received Financial Recovery Fund grants from the New York City Investment Fund[1] found that 37 percent of the businesses were forced to permanently relocate their office space after September 11, while 11 percent required temporary office space. Twenty percent of grantees had relocated outside of Lower Manhattan by June 2003. The displacement of companies and residents from Lower Manhattan was devastating to small businesses that relied on local customers, in particular medical groups, gyms, and schools, as well as professional services firms like printers, catering companies, and employment agencies. In addition, 27 percent of grant recipients, including employment agencies, catering companies, software businesses, and printers, depended on business from the financial services industry for the majority of their revenue. The disruption that September 11 created in the financial markets, coupled with the prolonged economic recession, resulted in large spending cutbacks by financial services companies. These cutbacks had a direct impact on the level of business directed to their small business suppliers.

Public Sector Economic Redevelopment Incentive Programs

In response to the September 11 attacks, economic incentive programs have been created by the public sector to promote economic redevelopment in Lower Manhattan, including the Liberty Zone Tax Package by the federal government and the Action Plan for New York Business Recovery and Economic Revitalization by the State and City.

Liberty Zone Tax Package

On March 9, 2002, the federal government created a tax incentive package for the "Liberty Zone," the area on or south of Canal Street. The package of incentives included the following principal elements:

- Tax exempt bonds for private development. This provision authorizes the issuance of $8 billion in tax exempt bonds ($4 billion each by the State and City) over the next three years to replace office space, rental residential space, and utilities. This includes both new construction and rehabilitation, and includes buildings and their structural components, fixed tenant improvements, and public utility property. No more the $1.6 billion can be used for rental residential property, and no more than $800 million can be used for retail property.
- Accelerated depreciation for leasehold improvements. Currently, leasehold improvements (improvements made to office space) can be depreciated over 39 years. This provision, available to lessors and lessees, would accelerate the depreciation period to five years for leasehold improvements made within Lower Manhattan. This pertains to improvements placed in service after September 10, 2001 and before January 1, 2007.
- 30 percent bonus depreciation for office equipment used in the zone. This applies to the cost of office equipment, new technology, and other property purchased. Depreciation can be applied in the same year that merchandise was bought, up until 2007.

[1] To be eligible for a Financial Recovery Fund grant (which ranged from $25,000 to $250,000), a business had to be located on or south of Canal Street and have between 4 and 100 employees on September 10, 2001. To avoid overlap with another grant program, retailers and manufacturers were eligible if they had between 50 and 100 employees.

$2,400 per employee Work Opportunity Tax Credit. The credit applies to companies with 200 or fewer employees that return to or move to Lower Manhattan and runs through December 31, 2003.

The incentive package also includes deferring taxes on insurance proceeds for property destroyed in Lower Manhattan, and advanced refunding for certain municipal bonds for facilities located in New York City.

Action Plan for Business Recovery and Economic Revitalization

On January 30, 2002, New York State's Empire State Development Corporation (ESDC) and the New York City Economic Development Corporation (EDC) created the Final Action Plan for New York Business Recovery and Economic Revitalization. The Action Plan states that ensuring economic recovery will require three principal steps:

- Helping affected businesses survive the physical damage and economic dislocation that has resulted from the attacks, so that they may continue to provide jobs;
- Ensuring that New York City does not lose substantial employment as a result of corporate relocations outside the City because of the attacks; and
- Undertaking necessary actions to rebuild the area of Manhattan that was destroyed or damaged.

In endeavoring to accomplish its mission, the Action Plan has provided funding for the compensation for economic losses for small and some other businesses, technical assistance for small business recovery, business information assistance, infrastructure rebuilding, and job creation and retention grants and loans.

The program's job creation and retention assistance is both for businesses located in Lower Manhattan at the time of September 11 and for businesses that will locate new operations and create new jobs in Lower Manhattan. Assisted companies will be required to maintain jobs in the area a minimum of seven years. Assistance may be made available to businesses that made commitments after September 11 and not later than December 31, 2004. ESDC and EDC may extend the period of availability if funding is available at the end of the period. Decisions as to whether to provide assistance and how much to offer will be evaluated case by case, based upon an assessment of the economic value of the project to New York City, risk, location, and size of workforce.

Project Site Office Market

In its current state, the Project Site lacks any usable commercial office space. A large office building (approximately 1.4 million square feet) stands at 130 Liberty Street, but the building, which was severely damaged in the terrorist attacks, is vacant and shrouded in black netting. See the Pre-September 11 Conditions Scenario for a description of office space existing on the Project Site prior to September 11.

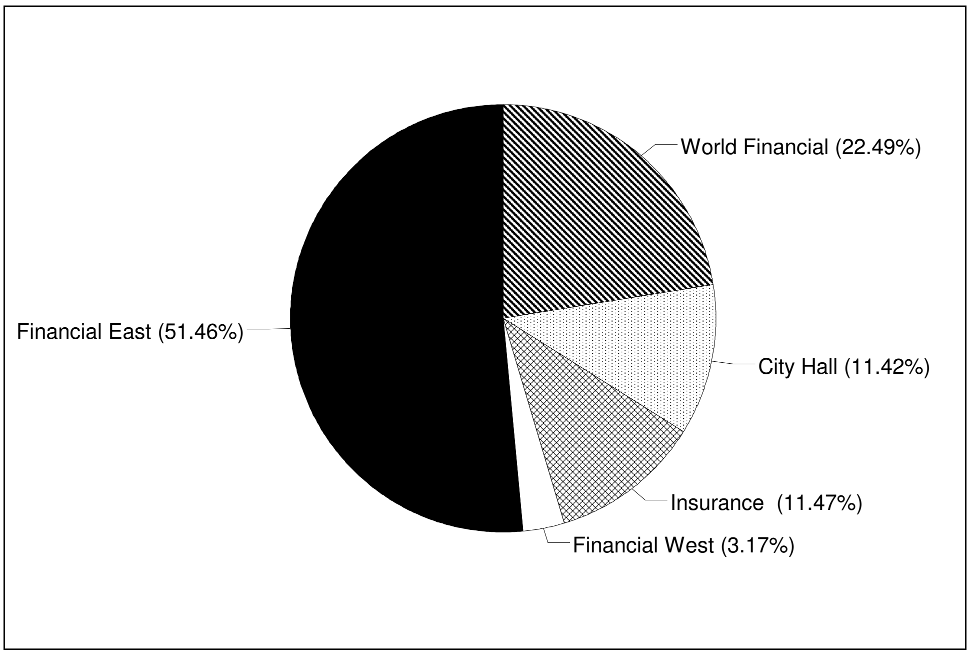
Lower Manhattan Study Area Office Market

Data from the second quarter of 2003 indicates that Lower Manhattan has a total inventory of approximately 93 million square feet of office space. Of that space, 49 percent (about 45.4 million square feet) is considered Class A and, as illustrated in Figure 9-9, over 50 percent of Class A space is located in the Financial East submarket (see Figure 9-3 for illustration of Lower Manhattan office market subarea boundaries). Class B space is also concentrated in Financial

East, while the City Hall and Insurance submarkets contain the majority (a combined 67 percent, or 10.3 million square feet) of Class C space.

Average rental rates in Lower Manhattan range from $44.13 per square foot for Class A space in World Financial to $23.87 per square foot for Class C space in Financial East. Overall, rents are highest in the World Financial submarket and lowest in the City Hall submarket, which has the highest concentration of Class C space. Average rent for Class B space is fairly consistent across all submarkets, with a 16 percent difference between the lowest and highest average rents. Rents for Classes A and C space on the other hand vary considerably across submarkets, with differences of almost 35 percent between lowest and highest average rents. Table 9-12 presents inventory and average rents by office class and Lower Manhattan submarket (submarkets are defined in Figure 9-3).

Figure 9-9
Class A Office Space by Lower Manhattan Submarket, 2003



Source: Cushman & Wakefield, *Downtown New York office market data,* second quarter 2003.

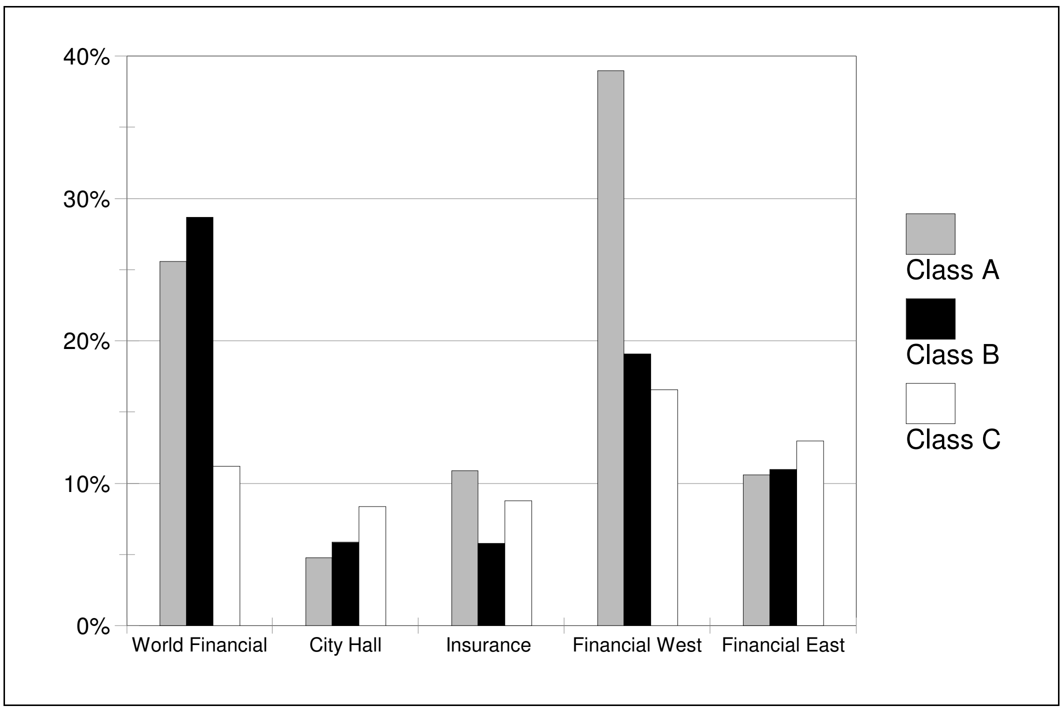
Table 9-12
Lower Manhattan Office Inventory and Rents, 2003

	Class A		Class B		Class C		Total	
Submarket	**Inventory (sq. ft.)**	**Total Avg. Rent**	**Inventory (sq. ft.)**	**Total Avg. Rent**	**Inventory (sq.ft.)**	**Total Avg. Rent**	**Inventory (sq.ft.)**	**Total Avg. Rent**
World Financial	10,202,802	$44.13	2,447,114	$29.27	1,396,150	$32.00	14,046,066	$40.58
City Hall	5,181,465	$40.99	3,492,656	$29.23	5,904,094	$30.60	14,578,215	$33.02
Insurance	5,202,929	$33.25	7,170,386	$27.90	4,393,706	$26.95	16,767,021	$29.85
Financial West	1,438,315	$34.51	3,433,528	$32.56	1,569,242	$29.24	6,441,085	$33.72
Financial East	23,349,965	$42.42	15,705,471	$31.16	2,002,826	$23.87	41,058,262	$36.98
Total	45,375,476	$41.57	32,249,155	$30.58	15,266,018	$28.49	92,890,649	$36.36
Percent of Total Study Area	48.8%	114.3%	34.7%	84.1%	16.4%	78.4%	100.0%	

Source: Cushman & Wakefield. *Downtown New York office market data,* second quarter 2003.

As illustrated in Figure 9-10 and Table 9-13, vacancy rates in Lower Manhattan vary considerably across submarkets and class of space. Overall, the World Financial and Financial West submarkets have the highest vacancy rates (24.7 percent and 22.9 percent, respectively), and vacancies are most common in Class A space. Approximately 14.3 percent (or 6,475,000 square feet) of all Class A space in Lower Manhattan is currently available, compared with 11.5 percent (3.7 million square feet) of Class B space and 10.2 percent (or 1.6 million square feet) of Class C space.

Figure 9-10
Lower Manhattan Office Vacancy Rates, 2003



Source: Cushman & Wakefield, *Downtown New York office market data,* second quarter 2003.

Table 9-13
Lower Manhattan Office Vacancy, 2003

Submarket	Class A		Class B		Class C		Total	
	Total Available Space	Total Vacancy Rate	Total Available Space	Total Vacancy Rate	Total Available Space	Total Vacancy Rate	Total Available Space	Total Vacancy Rate
World Financial	2,616,297	11.9%	5,104,073	12.2%	2,122,232	12.2%	27,657,165	12.0%
City Hall	1,198,558	12.1%	4,897,171	16.2%	3,341,074	13.4%	9,436,803	14.5%
Insurance	6,473,383	14.3%	3,709,101	11.5%	1,559,526	10.2%	11,742,010	12.6%
Financial West	28,102,801	12.4%	13,710,345	13.1%	7,022,832	12.2%	48,835,978	12.5%
Financial East	2,479,756	10.6%	1,731,071	11.0%	259,717	13.0%	4,470,544	10.9%
Total	6,473,383	14.3%	3,709,101	11.5%	1,559,526	10.2%	11,742,010	12.6%
Percent of Total Study Area	55.1%	113.5%	31.6%	91.6%	13.3%	81.0%	100..0%	

Source: Cushman & Wakefield, *Downtown New York office market data,* second quarter 2003.

Annual absorption (or the change in newly occupied office space) for Lower Manhattan has been negative since September 11, 2001. Net absorption for 2001, which captures both the pre-September 11 months when the office market was strong, and the post-September 11 months during the market downturn was -784,850 square feet. In 2002, absorption fell to approximately -3.9 million square feet. These severe drops in absorption were not limited to Lower Manhattan, but rather are characteristic of the broader Manhattan office market during 2001 and 2002. In 2000, absorption for all three of the major Manhattan submarkets was positive. In 2001 and 2002, however, all three submarkets showed negative absorption, with the net annual absorption for Manhattan at approximately -2.9 million square feet in 2001 and -5.9 million square feet in 2002.

Absorption data is not yet available for year end 2003, but second quarter data indicate that the Lower Manhattan office market may be starting to recover. Although absorption for Classes B and C space remain negative (-375,224 square feet and -353,522 square feet, respectively) Class A space is at 576,150 square feet. Across classes of space, second quarter absorption was highest in the Financial West submarket (402,877 square feet) and lowest in the City Hall submarket (622,136 square feet).

World Financial

The World Financial submarket contains a total of 14,046,066 square feet of office space, or 15 percent of all Lower Manhattan office space. Approximately 10.2 million square feet, or 73 percent, of the World Financial office market, is considered Class A. The submarket contains another 2.4 million square feet of Class B space, and 1.4 million square feet of Class C space. Prior to September 11, the World Financial submarket contained 28,872,348 square feet of space, the vast majority of which was Class A. With the destruction of the WTC and surrounding buildings, the Class A inventory in the submarket dropped by over 14 million square feet.

The average rent for all office space in the World Financial submarket is $40.58 per square foot—almost $6.50 per square foot higher than the average for the Financial East submarket, which has the second highest overall rental average in Lower Manhattan. Average rent for both Class A and Class C space in the World Financial submarket ($44.13 and $32.00 per square foot, respectively) is higher than it is in any other Lower Manhattan submarket.

Almost 25 percent of` all office space in the World Financial submarket is currently vacant. Of this approximately 3.5 million square feet of vacant space, roughly 2.6 million, is Class A. Prior to September 11, the overall vacancy rate for the World Financial submarket was only 3.4 percent, lower than the vacancy rate in any other Lower Manhattan submarket.

City Hall

With 14.6 million square feet of office space, the City Hall submarket contains approximately the same office inventory as the World Financial submarket. There is a noticeable difference, however, between the type of space found in the two submarkets; while 73 percent of the space in World Financial is Class A, only 36 percent of space in the City Hall area is Class A, and 40 percent is Class C.

On average, office space in the City Hall submarket rents for an annual $33.02 per square foot, with Class A space renting for $40.99 per square foot, and Classes B and C both renting for approximately $30 per square foot. Though the average rent of $40.99 per square foot for Class A space falls in the middle of the range of Class A rental rates for Lower Manhattan, it is $13.58 per square foot less than it was pre-September 11.

At 6.5 percent, the vacancy rate for the City Hall submarket is lower than vacancy rates in all other Lower Manhattan submarkets. The vacancy rate for Class A space in the submarket is particularly low—only 4.8 percent, compared with rates of 11 percent and higher in the other Lower Manhattan submarkets.

<u>*Insurance*</u>

There are 16.8 million square feet of office space in the Insurance submarket. Of that, 5.2 million is Class A, 7.2 million is Class B, and 4.4 million is Class C.

On the whole, office rents are lower in the Insurance submarket than anywhere else Lower Manhattan. Average rents for Class A ($33.25 per square foot) and B ($27.90 per square foot) are less than they are in all other submarkets, and at $26.95 per square foot, Class C space is at the low end of the price spectrum as well.

The overall vacancy rate for the Insurance submarket is 8.2 percent, higher only than the 6.5 percent rate in the City Hall submarket. The vacancy rate for Class B space is particularly low; only 5.8 percent (or 414,300 square feet) is currently vacant.

<u>*Financial West*</u>

Of the five Lower Manhattan submarkets, the Financial West area has the smallest office inventory. The majority of its space (3.4 mfs of a total 6.4mfs) is considered Class B and the remainder is divided fairly evenly between Class A and C space. The average rent for Class B space ($32.56 per square foot) is higher than it is in any other Lower Manhattan submarket, but still lower than the $33.84 per square foot average for Manhattan.

Vacancy rates in the Financial West subarea are high. The vacancy rate for Class A space is currently 39 percent—over 13 percent higher than the Class A vacancy rate in the World Financial submarket, the other Lower Manhattan area in which Class A vacancies are particularly common. The particularly high vacancy rate in the Financial West submarket is likely due to buildings, such as 130 Liberty Street, that were so damaged during the September 11 attacks that they have not yet been reoccupied. At 19.1 percent and 16.6 percent, respectively, vacancy rates for Class B and C space are also disproportionately high compared with the primary study area and the Manhattan office market as a whole.

<u>*Financial East*</u>

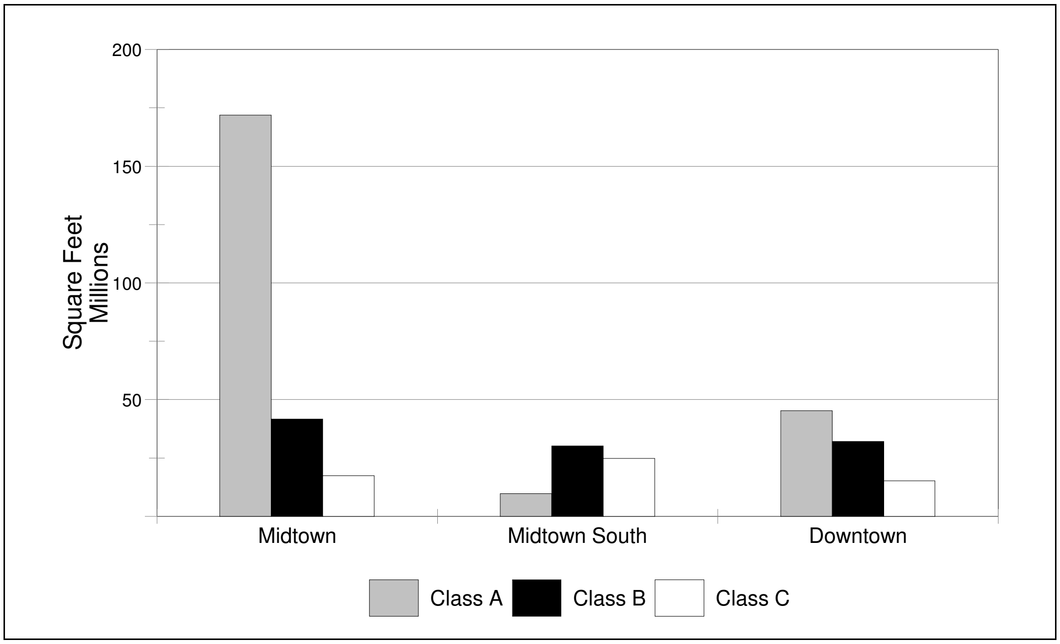
With 41.1 million square feet of office space, the Financial East submarket contains 44 percent of all Lower Manhattan office space, including approximately 50 percent of all Lower Manhattan Class A space (23.3 million square feet) and 50 percent of Lower Manhattan Class B space (15.7 million square feet). On average, office space in the Financial East submarket rents for $36.36 per square foot, making the area more expensive than the City Hall, Insurance, and Financial West submarkets, but still less costly than Manhattan as a whole, where the average office rent is $41.12 per square foot.

The overall vacancy rate for the Financial East submarket is 10.9 percent, with vacancy rates between 10 and 11 percent for Class A and B space, and 13 percent for Class C space.

Manhattan Office Market

According to second quarter 2003 data, the Manhattan office market (including the Midtown, Midtown South, and Lower Manhattan submarkets) contains approximately 390 million square feet of office space. Of that space, 58 percent (approximately 227 million square feet) is considered Class A, and 27 percent (about 104 million square feet) is considered Class B. As illustrated in Figure 9-11, the vast majority (75 percent) of Class A space is located in Midtown. Class B and C office space is more evenly dispersed across the submarkets, with Midtown containing the largest portion of Class B space, and Midtown South, the greatest amount of Class C.

Figure 9-11
Location of Class A, B, and C Office Space in Manhattan, Second Quarter 2003



Source: Cushman & Wakefield, *Manhattan office market data*, second quarter 2003.

The total average rent for Manhattan office space in 2003 is approximately $41 per square foot. Class A space commands an average rent of about $48.50 per square foot and Class C, $26.75 per square foot. Class A rents are much higher in Midtown than in Lower Manhattan or Midtown South—about $10 per square foot higher than Lower Manhattan and $17 per square foot higher than Midtown South. The average rental rate for Lower Manhattan as a whole ($36.36 per square foot) is significantly lower than the average rental rate for all of Manhattan ($41.12 per square foot).

Table 9-14 presents the inventory and average rent by class of space for each Manhattan submarket.

As indicated in Table 9-15, the overall vacancy rate for office space in Manhattan is currently 12.5 percent. Of the three submarkets, Midtown South has the highest vacancy rate (14.5 percent). Overall, Class B space has a slightly higher vacancy rate (13.1 percent) than Classes A (12.4 percent) or C (12.2 percent). The vacancy rate for Class A buildings is higher in Lower Manhattan than it is in other submarkets—14.3 percent in Lower Manhattan, compared with 11.9 percent Midtown and 12.1 percent Midtown South. This may be attributable to the fact that some Class A buildings surrounding the WTC Site remain uninhabitable and some tenants in others never returned to their Downtown space after they were forced to move out post September 11.

Table 9-14
Manhattan Office Inventory and Rents, 2003

Submarket	Class A Inventory (sq. ft.)	Class A Total Avg. Rent	Class B Inventory (sq. ft.)	Class B Total Avg. Rent	Class C Inventory (sq.ft.)	Class C Total Avg. Rent	Total Inventory (sq.ft.)	Total Total Avg. Rent
Midtown	171,977,201	$51.50	41,780,038	$35.94	17,442,468	$24.49	231,199,707	$46.56
Midtown South	9,943,982	$34.37	30,241,234	$32.82	24,993,692	$27.37	65,178,908	$31.09
Lower Manhattan	45,375,476	$41.57	32,249,155	$30.58	15,266,018	$28.49	92,890,649	$36.36
Total	227,296,659	$48.48	104,270,427	$33.37	57,702,178	$26.75	389,269,264	$41.42
Percent of Total Study Area	58.4%	117.9%	26.8%	81.2%	14.8%	65.1%	100.0%	
Downtown Percent of Total	20.0%	85.7%	30.9%	91.6%	26.5%	106.5%	23.9%	88.4%

Source: Cushman & Wakefield, second quarter 2003.

Table 9-15
Manhattan Office Vacancy, 2003

Submarket	Class A Total Available Space	Class A Total Vacancy Rate	Class B Total Available Space	Class B Total Vacancy Rate	Class C Total Available Space	Class C Total Vacancy Rate	Total Total Available Space	Total Total Vacancy Rate
Midtown	20,430,860	11.9%	5,104,073	12.2%	2,122,232	12.2%	27,657,165	12.0%
Midtown South	1,198,558	12.1%	4,897,171	16.2%	3,341,074	13.4%	9,436,803	14.5%
Lower Manhattan	6,473,383	14.3%	3,709,101	11.5%	1,559,526	10.2%	11,742,010	12.6%
Total	28,102,801	12.4%	13,710,345	13.1%	7,022,832	12.2%	48,835,978	12.5%
Percent of Total Study Area	57.5%	99.2%	28.1%	104.8%	14.4%	97.6%	100.0%	

Source: Cushman & Wakefield, second quarter 2003.

Project Site Retail Market

There are no retail establishments on the Project Site at this time.

Lower Manhattan Study Area Retail Market

September 11 was extremely detrimental to the Lower Manhattan retail market. Approximately 325,000 square feet of retail space was destroyed at the WTC, and many retail establishments in the area were closed for several months after the attacks, including the Century 21 department store and the shops at the World Financial Center (160,000 square feet). Prior to September 11, some of the most upscale retail offerings in Lower Manhattan could be found in the WTC and WFC, including Tahari at the WFC and Coach at the WTC.

Retailers reported a dramatic drop in sales after September 11, resulting both from a decline in office and tourist populations, and from the temporary decline in the residential population. A January 2002 Downtown Alliance survey of 861 retail stores and restaurants located in Lower Manhattan south of Chamber Street and in Tribeca found that 62 percent of retailers reported a “severe decrease” in sales volume and 33 percent reported a “modest decrease” through the end of the fourth quarter 2001. Stores and restaurants west of Broadway and north of Liberty Street experienced the greatest declines in sales, with 88 percent reporting that they had sustained “severe decreases” in sales volume. Businesses located in the “frozen zone” were particularly hard-hit, given that they were closed for several months after the attacks, while businesses outside the frozen zone in Lower Manhattan were closed for an average of eight days.[1] Retail businesses in the South Street Seaport also were hard-hit, with 69 percent reporting "severe decreases" in sales, and similar conditions were reported by retailers west of Broadway and south of Liberty Street. For all retailers in Lower Manhattan, the dramatic change in the customer base (fewer corporate clients and less overall foot traffic) made it more difficult to recover from the losses incurred during the days and weeks following September 11.

The retail vacancy rate below Chambers Street increased from approximately 10 percent in August 2001 to 17 percent in May 2002 and the average asking rent decreased from $60 per square foot in September 2001 to $58 per square foot in March 2002.[2] A survey conducted by Wall Street Rising in August 2002 indicated that there were 166 vacant retail spaces south of Chambers Street. A trend noted by Julie Menin, President of Wall Street Rising, was that while a number of new retail tenants are renting vacant spaces in Lower Manhattan, many existing tenants are still suffering from reduced sales in the aftermath of September 11. Menin also reported that the biggest concern of retailers is that there are fewer people working in Lower Manhattan. She also noted a critical need for cultural institutions, which would serve as an anchor within the community.[3]

Retail activity improved as tourists, residents, and businesses returned to Lower Manhattan, major Downtown stores such as Century 21 and J&R Computer World reopened, commercial areas such as Stone Street have shown they can thrive after September 11, and new stores such as Ann Taylor Loft, Nine West, and Crunch Gym appeared in Lower Manhattan.[4] In addition, significant financial incentives were created after September 11 to encourage new businesses to locate in Lower Manhattan and to support those that were already established. These mechanisms include cash grants, tax credits/depreciation, real estate tax abatements, power discounts, and loans. However, as illustrated in Figure 9-12, the average asking rent is still $2 per square foot less than it was in spring 2001, and $9 per square foot less than it was in fall 2000.

Lower Manhattan currently contains approximately 7.1 million square feet of retail space and comprises approximately 6.5 percent of the retail space in Manhattan. According to the report prepared by the Real Estate Board of New York (REBNY) in spring 2003, almost 2.3 million square feet of Lower Manhattan's retail space is available. Average asking price for these properties is $58 per square foot—significantly lower than the $88 per square foot average asking rent for Manhattan as a whole.[5]

The retail market in Lower Manhattan includes a broad range of stores, but is heavily concentrated in the food industries. A survey conducted by Wall Street Rising in August 2002 indicates that approximately one-third of all retail south of Chambers (their study area is smaller

---

[1] Alliance for Downtown New York, Inc., Downtown Alliance Survey of Lower Manhattan Retail Establishments, 2001.

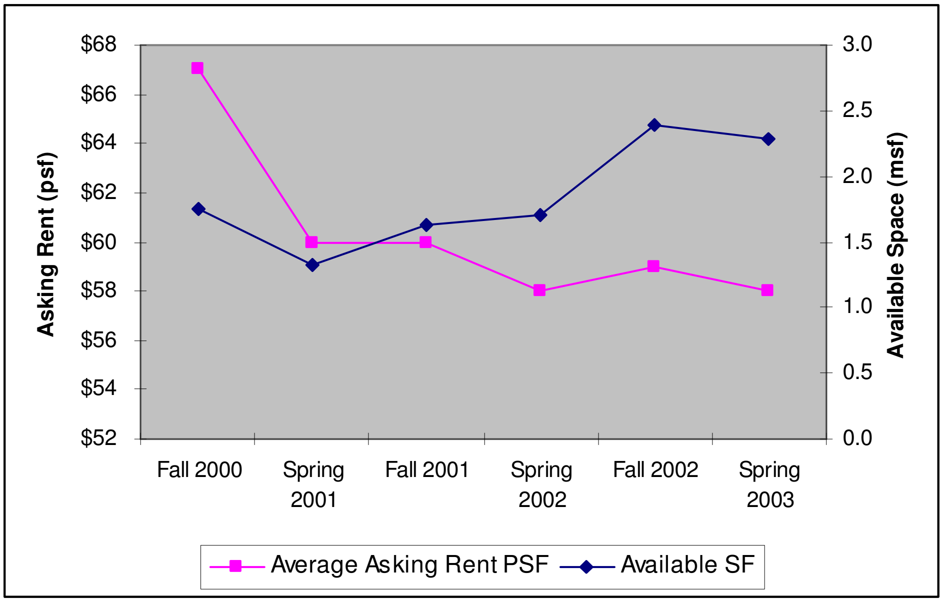
[2] Port Authority and LMDC, Urban Planning and Transportation Study: Lower Manhattan and the World Trade Center Site, September 2002, p. 3.24

[3] Crains.com, "On the Job with Julie Menin, Founder & President, Wall Street Rising", March 3, 2003.

[4] Wall Street Rising. *Downtown Retail Attraction Program*, March 2003, Section 4.

[5] Real Estate Board of New York, *Retail Report*, spring 2003.

Figure 9-12
Average Asking Rent and Available Space, Lower Manhattan Retail Market, Fall 2000 to Spring 2003



Source: Real Estate Board of New York, *Retail Report*, spring 2003.

than REBNY's) is food-oriented, with 20 percent of all retail falling into the deli/fast food/take-out category and another 11 percent in the restaurant category). Roughly another third of the retail base is in the GAFO (general merchandise, apparel and accessories, furniture and home furnishings and other comparison goods) category.[1] Table 9-16 shows the number of stores south of Chambers Street that fall into various retail categories.

In many areas of Lower Manhattan, retail is supported largely by the workforce population. Particularly in CBDs, where employment is more concentrated and average salaries are higher than in other areas, an area's workforce can have enormous spending power and support large amounts of retail. Based on an employee spending model developed by the International Council of Shopping Centers (ICSC), the average office worker spends about $1,441 per year (or about $ 5.76 per day, assuming a 250-day work year) on food during the business day and about $1,151 per year on retail goods (mostly GAFO).[2] Employees visiting an area's office buildings will add to that expenditure base.

[1] Wall Street Rising. *Downtown Retail Attraction Program,* March 2003, Section 3.

[2] International Council of Shopping Centers (ICSC), *ICSC Research Quarterly*, Volume 2, Number 4, winter 1995. Employee expenditure figures were inflated from their 1987 levels to estimated 2003 levels using the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers in the New York Region.

Table 9-16
Retail Establishments in Lower Manhattan, August 2002

Category	Number of Stores	Category	Number of Stores
Accessories	19	Health Food/Vitamins	13
Adult Entertainment	4	Hotels	9
Art Galleries/Framing	12	House Wares/Furniture	6
Bars/Pubs	35	Jewelry	39
Beauty Supplies	10	Liquor	9
Bookstores	7	Locksmith	8
Candy/Sweets	16	Medical/Dental	7
Catering	2	Movie Theater	1
Cell Phone Stores	27	Museums	10
Check Cashing	7	Music/DC/Video	9
Cleaners/Tailoring	16	Nail Salons	21
Clothing	95	Newspapers/Magazines	25
Coffee/Tea House	22	Nightclubs	3
Computers/Repair	4	Office Supplies	7
Daycare	10	Optical	8
Deli/Take-Out/Fast Food	251	Pet Supplies/Services	3
Department Stores	2	Photography/Camera	21
Drugstores/Pharmacies	16	Printing/Copying	15
Electronics	7	Real Estate Agencies	4
Financial Services	37	Religious Institutions	11
Florists	14	Restaurants	132
Games/Comics/Toys	4	Schools/Universities	15
Gaming/Betting	3	Shipping/Mail/Moving	15
General Merchandise	15	Shoes	22
Gifts/Souvenirs	44	Shoe Repair	26
Grocery/Gourmet	9	Sporting Goods	3
Gyms/Exercise	23	Tobacco/Cigars	8
Hair Salon/Barber	28	Travel Agencies	6
Hardware	10	Other/Miscellaneous	22
Total			**1,227**

Source: Wall Street Rising, *Downtown Retail Attraction Program*, March 2003.

The growing residential population in Lower Manhattan also provides substantial support to the area's retail sector. The Wall Street Rising August 2002 survey found that 64 percent of Lower Manhattan residents spend more than 20 percent of their disposable income in restaurants and stores in Lower Manhattan. (The survey also found that 37 percent of Lower Manhattan workers spend over 20 percent of their disposable income on the same.[1])

North of WTC Site

Retail in the North of WTC Site subarea is concentrated in the blocks north of Murray and east of Greenwich. Ground-floor retail uses include mostly banks, restaurants, dry cleaners, and convenience goods stores. The retail uses are more heavily concentrated along the north-south streets and Chambers Street, on Murray Street east from Greenwich Street, and on Park Place from West Broadway to the east.

[1] Wall Street Rising, Downtown Retail Attraction Program: Building Your Business in the Heart of Manhattan, March 2003.

Broadway Corridor

The Broadway Corridor includes a large number of eating and drinking establishments that serve the area's workforce, along with a number of convenience goods stores and neighborhood services stores, such as salons and film developers. Retail is more highly concentrated in the northern part of the subarea, on the eastern side of the WTC Site and along Broadway. Destination retailers in the subarea include Century 21 and Brooks Brothers.

Greenwich South Corridor

The Greenwich South Corridor retail market mainly contains restaurants, informal eating establishments, and small-scale retail businesses concentrated along Greenwich and Washington Streets, with limited retail along Route 9A. Several retail spaces in the subarea are vacant, including two former restaurant spaces in the block just south of the WTC Site, between Liberty and Cedar, and Trinity and Greenwich Streets. The only major destination retail store in the subarea is the Syms clothing store located on Trinity Place south of Exchange Alley.

Battery Park City

Retail in BPC is generally less concentrated than it is in other Lower Manhattan subareas, with the exception of the World Financial Center complex, which includes two floors of retail stores. Excluding the World Financial Center, BPC includes 19 eating and drinking establishments, two food markets, and several service establishments, such as beauty salons and dry cleaners. The World Financial Center contains 33 retail stores on two floors. Twelve are eating or drinking places, 10 are GAFO stores, nine sell convenience goods, and two offer neighborhood services. A June 2003 survey revealed that 40 percent of the stores in the World Financial Center complex were vacant.[1]

Brooklyn Bridge to Battery Park

Major retail areas in the Brooklyn Bridge to Battery Park subarea include Fulton Street, the Historic Seaport district, and the Pier 17 Pavilion. The Fulton Street corridor includes a wide diversity of businesses, with many small stores selling jewelry, discount clothing and accessories, and gifts and souvenirs, along with eating and drinking places. The Historic Seaport district is characterized by upscale national/regional tenants (e.g. Coach, Brookstone, J. Crew, and Ann Taylor) and a variety of restaurants, many of which are located in historic buildings on cobblestone streets like Front Street and Schermerhorn Row. The Pier 17 Pavilion is a three-story mall consisting primarily of small storefronts for specialty tenants of apparel and accessory retail. The mall also includes several restaurants and bars and some nationally recognized tenants, such as Sharper Image, Express, Victoria's Secret, and Sam Goody. According to the June 2003 Fulton Corridor study, the mall has several vacancies, which are indicative of its recent poor performance.[2]

Farther south, to the east of Battery Park between Broadway and Broad Street, lies Stone Street, a recently revitalized historic commercial area. The street was designated an historic district by the New York City Landmarks Preservation Commission in the 1990s and subsequently restored

---

[1] LMDC, Fulton Corridor: Creating a Vision for Enhanced Retail+Arts+Cultural Activities in Lower Manhattan, June 12, 2003. Volume 1, Strategic Plan. P. A-05

[2] LMDC, Fulton Corridor: Creating a Vision for Enhanced Retail+Arts+Cultural Activities in Lower Manhattan. June 12, 2003. Volume 1, Strategic Plan. P. A-38

and repaired. Street work was completed in early 2000, and the street, which is closed to vehicular traffic during the day, is now lined with restaurants and shops.

Chinatown

Retail in the Chinatown subarea is mainly concentrated on the ground floors of small, older buildings. High concentrations of commercial and mixed-use buildings exist throughout the subarea, clustered along Canal Street between Broadway and Pearl Street, and along the north-south streets throughout the subarea. Chinese restaurants, fish and vegetable markets, tea and rice shops, and garment factories are the main businesses in Chinatown, but the area contains other retail establishments as well, such as traditional Chinese herbal medicine shops, acupuncturists, and jewelry and silk robe shops. The area's distinct character and mix of businesses makes it a popular tourist destination.

Civic Center

The Civic Center area contains very little retail. Street vendors selling food and drink items comprise almost all of the retail activity in the subarea.

Tribeca

Retail in Tribeca is concentrated on the ground floors of residential buildings that have been converted from commercial to residential use over the past several decades. Retail in Tribeca is a mix of basic neighborhood amenities, such as banks, dry cleaners, and convenience goods stores, and concentrations of art galleries, boutique shops, bars, and restaurants. The area is largely known for its fine dining establishments, which include such high-end restaurants as Nobu, Tribeca Grill, Montrachet, and Capsouto Frerès.

Manhattan Retail Market

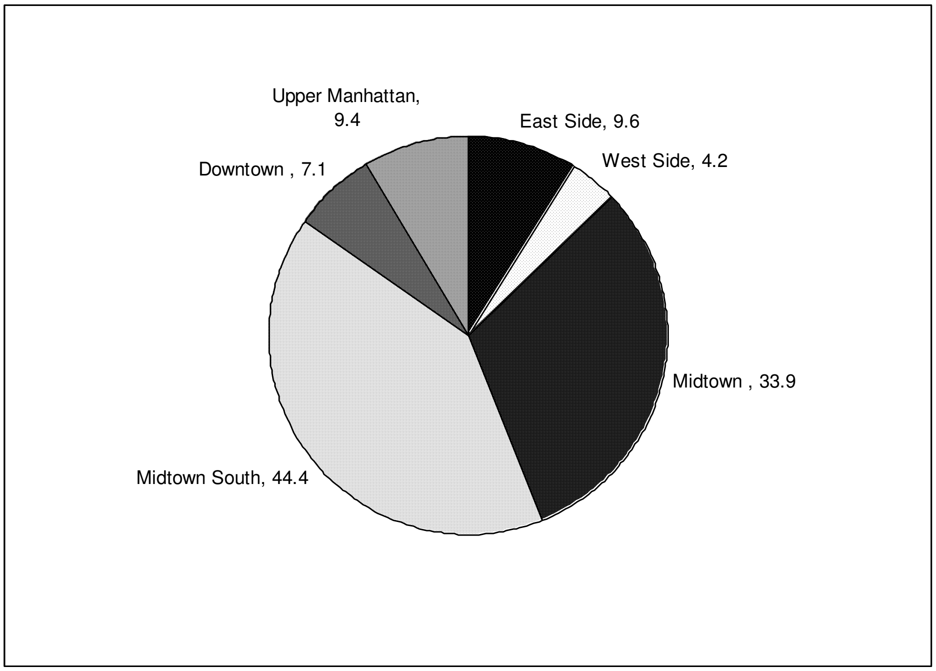
According to the New York City Department of Finance, Manhattan includes a total of 108.6 million square feet of retail space.[1] As illustrated in Figure 9-13, approximately 41 percent of that space (44.4 million square feet) is located in the Midtown South and another 31 percent (33.9 million square feet) is located in Midtown. Only 6.5 percent of Manhattan's retail space is located Downtown.

The average asking rent for Manhattan retail space is currently $88 per square foot, but asking rents differ significantly among submarkets. Average asking rents are highest in the East Side ($128 per square foot), West Side ($104 per square foot), and Midtown ($112 per square foot) and lowest in Midtown South ($70 per square foot), Downtown ($58 per square foot), and Upper Manhattan ($53 per square foot). As illustrated in Figure 9-14, the average asking rent dropped dramatically from spring 2001 to fall 2001, from $98 per square foot in the spring to $84 per square foot in the fall. The amount of available retail space increased only modestly over that same time period—from 10.6 million square feet in the spring to 11.3 million square feet in the fall—but has since increased to reach 14.5 million square feet in the spring of 2003.

---

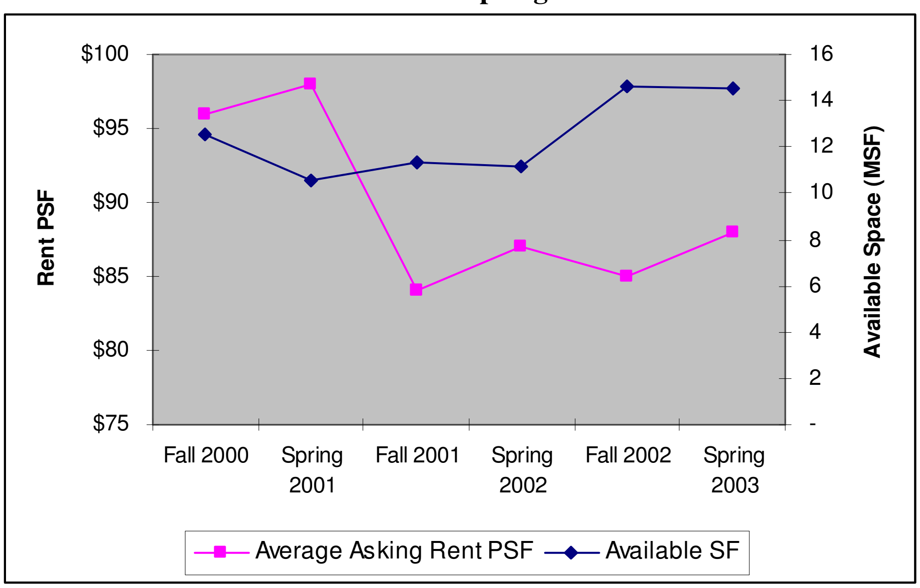
[1] Real Estate Board of New York, *Retail Report*, spring 2003.

Figure 9-13
Manhattan Retail Space (Millions of Square Feet) by Submarket, Spring 2003



Source: NYC Department of Finance, REBNY *Retail Report*, spring 2003.

Figure 9-14
Average Asking Rent and Available Space, Manhattan Retail Market, Fall 2000 to Spring 2003



Source: Real Estate Board of New York, *Retail Report*, spring 2003.

EMPLOYMENT—2003 CURRENT CONDITIONS SCENARIO

Direct Effect of September 11 on Employment in Lower Manhattan

The September 11 attacks and the economic downturn that followed had a dramatic impact on employment in Lower Manhattan. The attacks destroyed seven buildings and damaged approximately 23 others. As described above, according to TenantWise.com, the buildings that were destroyed and damaged contained approximately 608 tenants—450 tenants in destroyed buildings and 158 tenants in damaged buildings. In terms of total employment directly displaced by the September 11 attacks, estimates range from approximately 87,000 on the low end (according to preliminary estimates by the New York City Office of the Comptroller), to as many as 138,000 (according to estimates from TentantWise.com). The New York City Partnership and Chamber of Commerce estimated that at least 100,000 employees were directly displaced by the attacks, with roughly half of these jobs in financial services, which represented 49 percent of the jobs in Lower Manhattan and 77 percent of Lower Manhattan's total economy prior to September 11, 2001. Table 9-17, estimates the geographical relocation of employment within the New York Metropolitan region, based on the tenant relocation research conducted by TenantWise.com.

Table 9-17
Employment Relocation Resulting from September 11 World Trade Center Attacks

Geographic Area of Job Relocation	Number of Jobs	Percent of Total
Total Jobs Initially Displaced	137,919	100%
Jobs returning to Lower Manhattan	72,384	52.5
Jobs leaving to Midtown	39,731	28.8
Jobs leaving to New Jersey	16,245	11.8
Jobs leaving elsewhere*	8,519	6.2
Undecided	1,040	0.8

Note: *"Elsewhere" is defined as non-New Jersey and outside of Manhattan.
Source: TenantWise.com Special Report: Overview of Current Situation, September 2003.

As shown in Table 9-17, as of September 2003, over half of the employment initially displaced by the attacks has relocated either to damaged buildings that have been repaired and re-opened, or to other non-damaged buildings in Lower Manhattan. Conservatively assuming that all jobs in the "elsewhere" category relocated out of New York City[1], as many as 24,764 jobs, or 18.0 percent of the jobs directly displaced by the September 11 attacks, have been lost from New York City. While industry-specific information is less comprehensive, unofficial estimates from the New York State Department of Labor state that approximately 7,000 securities workers left New York City, with only 3,000 workers having returned as of March 2002.

In light of these displacement and relocation estimates, and the economic downturn accelerated by the terrorist attacks, it is not surprising that Lower Manhattan as a whole lost approximately 71,256 employees between 2000 and 2002—almost 17 percent of its year 2000 workforce. By far, the greatest loss was in the FIRE sector, which decreased by approximately 34,370 between

[1] Exceptions to this assumption would include businesses that relocated office space to other New York City boroughs, such as Empire Blue Cross Blue Shield, which relocated approximately 320,000 square feet of office space to 9 MetroTech Center, Brooklyn.

2000 and 2002, a decrease of over 25 percent. Retail was also hit hard, losing about 13,440 employees (or approximately 11 percent of its 2000 base) over that same timeframe.

Project Site Employment

There are currently no employees working at businesses located on the Project Site.

Lower Manhattan Employment

In 2002, there were approximately 354,753 private and public sector employees in the primary study area. This estimate was generated using NYMTC employment figures, along with 2002 employment data from NYSDOL. See section 9.2 "Methodology" for further explanation.

As shown in Table 9-18, almost 40 percent of Lower Manhattan private sector employees (about 107,440 employees) work in Service Industries and another 35 percent (or about 96,000 employees) work in the FIRE sector. Within the FIRE industries, over 60 percent of employees work in the security and commodity brokers, dealers, exchanges, and services subsector and another 14 percent work at banks, in the depository institutions subsector. The greatest percentage of employees in the services industry (31 percent) work in business services.

Table 9-18
Lower Manhattan Employment

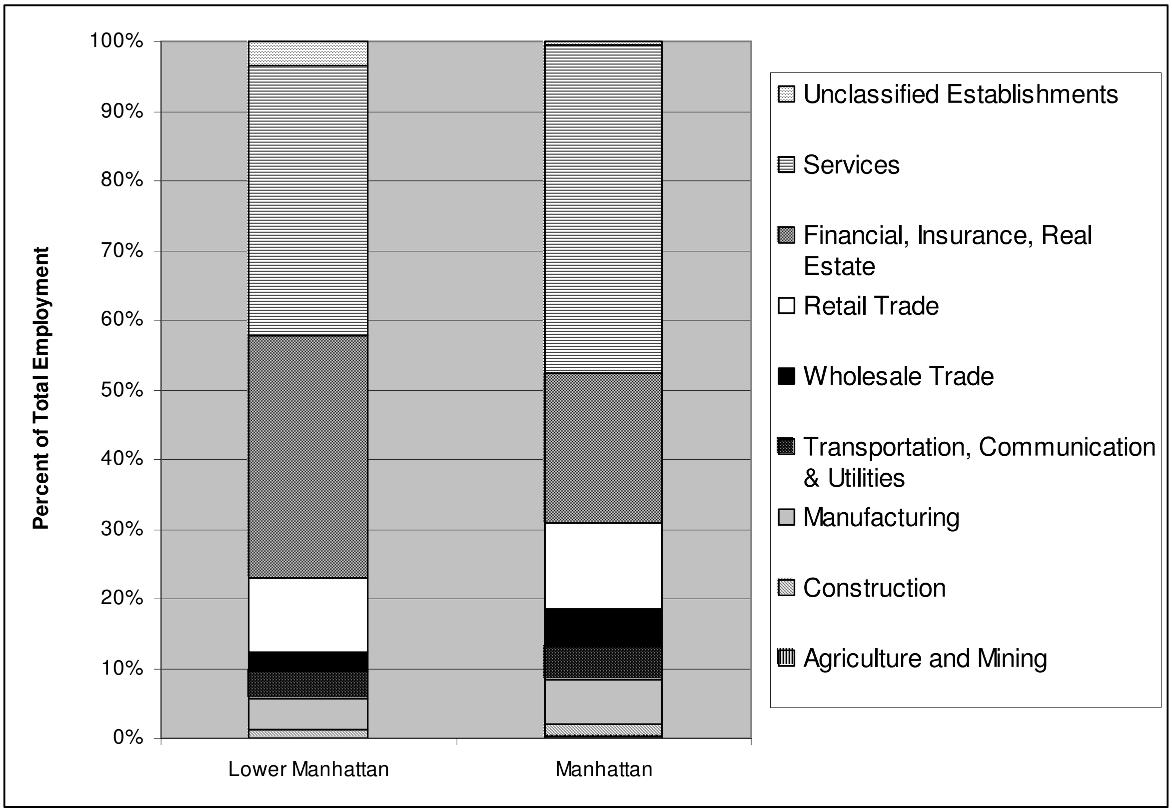
Industry	Number	Percent
Private Sector Employment	276,336	77.9%
Agriculture, Forestry, Fishing, and Hunting	174	0.1%
Mining	2	0.0%
Construction Industries	3,478	1.3%
Manufacturing	12,012	4.3%
Transportation, Communication, and Utilities	10,627	3.8%
Wholesale Trade	7,658	2.8%
Retail Trade	29,520	10.7%
Financial, Insurance, Real Estate	96,004	34.7%
Services Industries	107,444	38.9%
Unclassified Establishments	9,395	3.4%
Public Sector Employment	78,417	22.1%
Total Employment	354,753	100.0%

Notes:

1. Due to NYSDOL data suppression practices, the sum of employment by industry did not exactly match the total private sector employment figure. Employment that was unaccounted for in the industry breakdown was added to "Unclassified Establishments."
2. For private sector employment industry subcategories, "Percent" represents percent of private sector employment, not total employment. For main public and private Sector headings, "Percent" represents the relative contribution of private and public employment to total employment.

Sources: Number of firms was obtained from NYSDOL 2002 employment data. Employment was estimated using NYSDOL data to generate an employment estimate that is consistent with NYMTC employment estimates.

Figure 9-15
Employment in Lower Manhattan and Manhattan, 2002



Source: NYSDOL second quarter 2002 employment data and NYMTC 2002 employment estimates.

Compared with Manhattan, Lower Manhattan is noticeably more concentrated in the FIRE industries and less concentrated in services. Figure 9-15 compares the private sector employment distribution across major industries for Manhattan and Lower Manhattan.

Manhattan and New York City Employment

According to second quarter 2002 employment data from the NYSDOL, there are approximately 2.9 million people working in the private sector in New York City, and over 60 percent of them are employed in Manhattan (see Table 9-19).

Services industries, which include a wide variety of jobs in hotel, educational services, legal services, automotive repair, and health services, employ the largest number of people and the greatest percentage of the total private sector workforce in both New York City and Manhattan. In Manhattan, employment in services industries is approximately 850,140, comprising about 47 percent of the overall private sector market. In New York City, 46 percent of the private sector workforce is employed in services.

Table 9-19
Manhattan and New York City Private Sector Insured Employment, 2002

Industry	Manhattan		NYC	
	Employment	Percent of Total	Employment	Percent of Total
Manufacturing	118,341	6.6%	201,982	7.0%
Agriculture and Mining	2,273	0.1%	4,756	0.2%
Construction	31,284	1.7%	111,575	3.9%
Transportation and Public Utilities	82,896	4.6%	182,542	6.3%
Trade	321,689	17.8%	570,515	19.7%
Wholesale Trade	99,117	5.5%	162,124	5.6%
Retail Trade	222,572	12.3%	408,391	14.1%
FIRE	386,348	21.4%	452,072	15.6%
Services	850,137	47.2%	1,330,701	46.0%
Unclassified	9,536	0.5%	36,987	1.3%
Total Private Sector Employment	1,802,510	100.0%	2,891,130	100.0%

Source: New York State Department of Labor, second quarter 2002.

Next to services, the industry employing the greatest number of Manhattan workers is finance, insurance, and real estate (FIRE). These workers comprise over 21 percent of Manhattan's private sector workforce. In New York City as a whole, however, FIRE employment constitutes only 16 percent of total employment. There, the trade industry (particularly retail trade) is the second-highest employer, with 570,515 2002 employees, or approximately 18 percent of the private sector workforce.

Public sector employment represented about 16 percent of all employment in New York City in 2002. Of the 553,887 public sector employees, approximately 60,700 employees worked for the federal government, 42,600 worked for New York State, and the remainder (about 450,600) worked for local government.

HOTELS AND TOURISM—2003 CURRENT CONDITIONS SCENARIO

Project Site Hotels and Tourism

The WTC Site has attracted millions of visitors since September 11. According to NYC & Company, the number of tickets distributed for access to the site's viewing platform averaged over 200,000 per month from March to May 2002, and the Downtown Alliance estimates that at least 3.6 million people visited the site in 2002.[1]

Lower Manhattan Hotels and Tourism

The impact of September 11 on the hotel sector in Lower Manhattan was severe. The World Trade Center Marriott, which contained 817 rooms and employed approximately 1,250 workers, was destroyed and most other hotels below Chambers Street closed for months after the attacks.

[1] According to the Downtown Alliance, visitation to the WTC Site is not tracked in any comprehensive way, and the preliminary estimate of 3.6 million visitors could significantly under-represent actual visitation to the site—possibly by as much as 4 million people.

Though all of the Lower Manhattan hotels reopened within about a year of the September 11 attacks, occupancy rates and room rates were still down from their pre-September 11 levels.[1]

Currently, there are 12 hotels in operation below Canal Street, with a total of approximately 2,910 rooms. The most recent additions to the Lower Manhattan hotel market are the Embassy Suites and the Tribeca Grand, which opened in 2000 and contain a combined 666 rooms, and the Ritz-Carlton Battery Park, which opened in 2002 with approximately 300 rooms.

A recent survey commissioned by NYC & Company indicates that overall visitation to Lower Manhattan has now recovered, largely due to interest in the WTC Site. The survey concludes that an estimated 8.1 million visitors went to Lower Manhattan in 2002.[2] This figure represents approximately 23 percent of the estimated 35.3 million people who visited New York City in 2002, and indicates that Lower Manhattan may in fact be drawing a slightly higher percentage of NYC visitors than it was in 2000 when, according to estimates from the Downtown Alliance and NYC & Company, Lower Manhattan was capturing between 20 and 22 percent of all New York City visitation.

Despite this apparent recovery, many of the "brick and mortar" visitor venues still report depressed attendance. Visitor volumes for Liberty and Ellis Islands, for example, are reported to be 50 percent of their 1998 levels, and South Street Seaport estimated that visitation to the Seaport has dropped by more than 1 million people since September 11, 2001.[3]

International visitors are a key component of the city's tourism industry that has declined in Lower Manhattan; the NYC & Company study found that international visitors accounted for 32 percent of the surveyed Lower Manhattan visitors, compared with a 46 percent share generated by the international market in 1998.[4] This shift reflects the dramatic decline in New York City's international visitor market in 2001 and the area's past disproportionate dependence on the international visitor compared with other destination areas and to New York City as a whole.

The composition of the visitor base has important implications for the Lower Manhattan tourism industry. Domestic and international visitors have a higher average length of stay, spend more money, and visit more venues in Lower Manhattan compared with New York City residents and suburban visitors. Furthermore, international visitors spend more than three times as much per trip compared with domestic visitors, as they have a longer average stays (7.5 nights according to the NYC & Company study) and a greater emphasis on shopping. A separate NYC & Company study reports that international visitors in 2001 spent an average of $1,105 per person while in New York City, while domestic visitors spent an average of $301 per person per trip.[5]

Manhattan/New York City Hotels and Tourism

Prior to 2001, the hotel and tourism markets in New York City were remarkably strong. Over the course of the 1990s, the New York City tourism market grew dramatically as the economy (both

---

[1] Port Authority and LMDC, Urban Planning and Transportation Study: Lower Manhattan and the World Trade Center Site, September 2002.

[2] NYC & Company, Visitors to Lower Manhattan & Upper Manhattan, February 2003, p. 1.

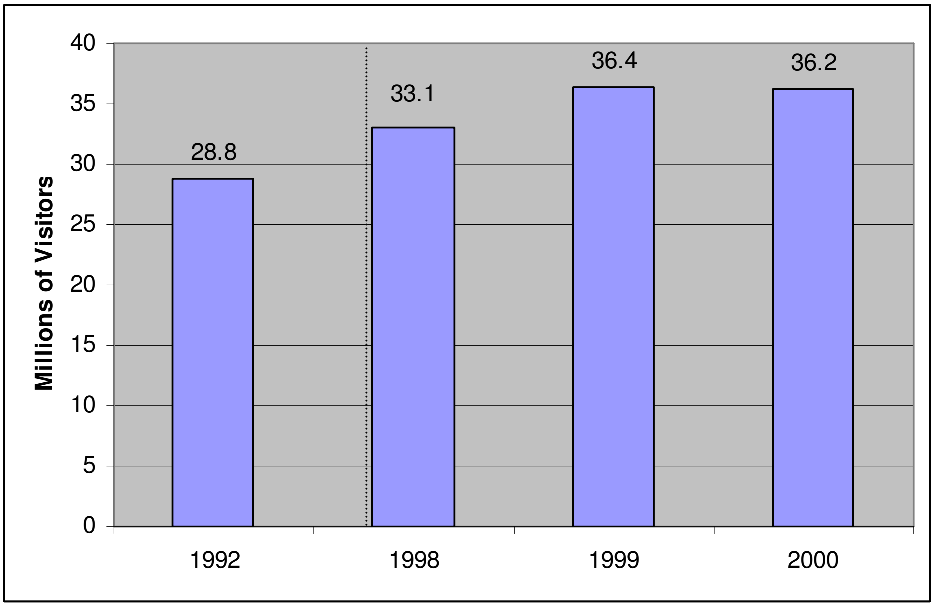
[3] NYC & Company, Visitors to Lower Manhattan & Upper Manhattan, February 2003, p. 4.

[4] NYC & Company, Visitors to Lower Manhattan & Upper Manhattan, February 2003, citing 1998 Study of Visitors to Downtown New York, by Audience Research & Analysis.

[5] NYC & Company, Tourism's Economic Impact on New York City in 2001, 2003.

regional and national) grew out of a period of recession and into a stretch of robust economic activity. Figure 9-16 shows the number of visitors in selected years from 1992 to 2000. Over the course of this eight year period, the number of visitors to New York City grew at an average annual rate of approximately 3 percent, from 28.8 million people in 1992 to 36.2 million people in 2000.

Figure 9-16
Number of Visitors to New York City, 1992–2000



Source: NYC & Company.

At the start of 2001, tourism and overnight stays in the city began to decline as the economy softened, and in the weeks following September 11, the hotel and tourism markets suffered a severe shock as both leisure and business travel were cut sharply. According to a NYC Partnership survey, the hotel occupancy rate in the city during the first two weeks after the attacks was 38 percent.[1] Hotel business improved slowly after September 11 and by the end of 2001, hotel occupancy was at about 73 percent, down from the 84.6 percent average for year 2000. Room rates had dropped from an average of $237 per day in 2000 to $206 per day in 2001. By the end of 2002, the occupancy rate for New York City hotels had climbed to 75.2 percent, but room rates had decreased to an average of $194 per night.

According to NYC & Company, the overall number of visitors to New York City dropped by 1.1 million between 2000 and 2001—from 36.2 to 35.1 million.[2] This decline can be attributed in part to the weakening economy and general concern over security and travel, and in part to the loss of significant Lower Manhattan destinations, including firms and conference facilities that

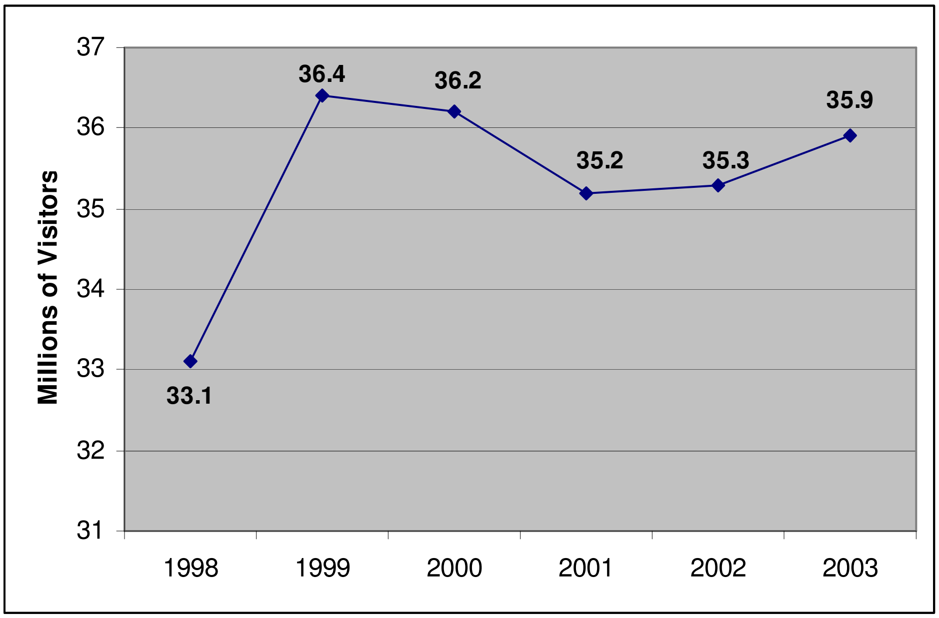
[1] Port Authority and LMDC, Urban Planning and Transportation Study: Lower Manhattan and the World Trade Center Site, September 2002, pp. 3.5-3.6.

[2] NYC & Company, NYC Travel Outlook – Preliminary NYC Briefing Sheet, last updated June 5, 2003.

attracted business visitors, the World Trade Center Observation Deck, and the Windows on the World restaurant. The temporary closure of Downtown tourist destinations, such as the Statue of Liberty and Ellis Island, the New York Stock Exchange, and the Winter Garden, also contributed to the drop in visitors to the city.

NYC & Company estimates indicate 35.3 million people visited New York City in 2002 and that 35.9 million will visit the city by the end of 2003. Figure 9-17 illustrates the trend in visitation to New York City between 1998 and 2003.

Figure 9-17
Total Visitors to New York City, 1998–2003



Source: NYC & Company, *NYC Preliminary Travel Outlook,* June 5, 2003.
Note: 2002 and 2003 figures are estimates.

9.3.2 FUTURE WITHOUT THE PROPOSED ACTION 2009—CURRENT CONDITIONS SCENARIO

This section describes the socioeconomic conditions that would be expected in the future without the Proposed Action, presenting development and population changes that are currently projected to occur in the various geographic areas of analysis (the Project Site and the primary and secondary study areas) by 2009.

All population and development estimates in this section are based solely on the lists of future development without the Proposed Action for each scenario—the list of projects that are known to be planned for the study areas, and the list of projects that were generally known and expected prior to September 11.

POPULATION AND HOUSING—FUTURE WITHOUT THE PROPOSED ACTION 2009, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

No housing is proposed for the site, and no residential population will be present on the Project Site in 2009 in the future without the Proposed Action.

Primary Study Area

In the future without the Proposed Action, approximately 5,251 housing units will be added to the primary study area by 2009. As shown in Table 9-20 the largest development, which will include 1,120 units, will be located at 270 Greenwich in the North of WTC Site subarea. Overall, however, the BPC subarea will gain the most housing—almost 2,180 units by 2009.

With the new units, the primary study area population will increase by approximately 10,005 people—approximately an 83 percent increase over the 2000 population of about 12,079 and a 60 percent increase over the estimated 2003 population of 16,723.

Secondary Study Area

By 2009 without the Proposed Action, the secondary study area is expected to gain 3,911 housing units and an approximate 7,183 residents—a 15 percent increase over its 2000 population (47,388 residents) and a 14 percent increase over its estimated 2003 population (52,820 residents). As illustrated in Table 9-21, over 75 percent of the new units will be constructed in the Brooklyn Bridge to Battery Park subarea, with the largest development (1,321 units) planned for the southeast corner of Wall Street and Broad Street.

Tribeca will gain 55 more units than Chinatown, but due to the larger household size in Chinatown (2.7 versus 2.0 in Tribeca), Chinatown's population will increase by about 170 persons more than the population in Tribeca.

COMMERCIAL OFFICE AND RETAIL MARKET—FUTURE WITHOUT THE PROPOSED ACTION 2009, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

In the future without the Proposed Action, the Project Site will contain no commercial uses in 2009.

Lower Manhattan Study Area

The primary study area, in the future without the Proposed Action, will gain approximately 3,594,300 square feet of commercial space by 2009. Approximately 3 percent (or 111,500 square feet) will be retail, and the remainder (3,482,800 square feet) will be office. As shown in Table 9-22, the vast majority of this space (3,550,750 square feet, or over 90 percent of all new space) will be located in the World Financial submarket. With the exception of one office building in the Financial East submarket, all new office space will go into three buildings lining Vesey Street directly north of the WTC Site. These three buildings will provide a combined 3,482,800 square feet of office space.

As indicated in the table, the primary study area will contain approximately 96.7 million square feet of office space and 7.2 million square feet of retail space in 2009.

Table 9-20
Residential Development, Primary Study Area:
2009 Future Without the Proposed Action Under Current Conditions Scenario

Project Address	Housing Units	Estimated Population[1]
Battery Park City		
Site 2 BPC S	628	1,130
Site 18B, BPC	268	482
Site 19B, BPC	264	475
Site 23 BPC N	269	484
Site 24 NPC N	250	450
Site 3 BPC S	500	900
Broadway Corridor		
130 Fulton Street	62	118
21-23 Maiden Lane	30	57
233 Broadway	150	285
Greenwich South Corridor		
90 Washington Street	387	658
90 West Street	410	697
North of WTC Site		
270 Greenwich	1,120	2,352
West and Chambers Streets	488	1,025
10 Barclay	375	788
125 Church Street	50	105
Summary		
2009 Additions to Primary Study Area	5,251	10,006
2000 Census	7,723	12,079
2003 Estimate[2]	10,492	16,723
Total 2009 Primary Study Area (Based on 2003 Estimate)	15,743	26,729

Notes: 1 Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.
2 The 2003 estimate incorporates residential projects known to have been completed between the 2000 census and the end of 2003.

Table 9-21
Residential Development, Secondary Study Area:
2009 Future Without the Proposed Action Under Current Conditions Scenario

Project Address	Housing Units	Estimated Population[1]
Brooklyn Bridge to Battery Park		
150 Nassau Street	140	238
80 South Street	125	213
10 Liberty Street/ William Street	284	483
2 Gold Street	650	1,105
63 Wall Street	475	808
85 South Street	60	102
23 Wall Street/15 Broad Street	1,321	2,246
Chinatown		
117 Worth Street	330	891
52 Franklin Street	30	81
65 Worth Street	30	81
Buildings w/ fewer than 20 units	8	22
Tribeca		
448 Greenwich Street	120	240
79 Laight Street	26	52
79 Worth Street	35	70
200 Church Street	20	40
3-9 Hubert Street	34	68
416 Washington Street	87	174
258 West Street	110	220
Buildings w/ fewer than 20 units	21	42
Summary		
2009 Additions to Secondary Study Area	3,911	7,183
2000 Census	19,420	46,539
2003 Estimate[2]	22,425	51,972
Total 2009 Secondary Study Area (based on 2003 Estimate)	26,336	59,155

Notes: 1 Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.
2 The 2003 estimate incorporates residential projects known to have been completed between the 2000 census and the end of 2003.

Table 9-22
Proposed Commercial Development in Lower Manhattan Study Area:
2009 Future Without the Proposed Action Under Current Conditions Scenario

Address	Type of Commercial	Square Footage
World Financial		
140 West Street	Office	1,171,540
7 World Trade Center	Office	1,685,000
90 Church Street	Office	626,260
Site 18B, BPC	Retail	14,000
Site 23 BPC N	Retail	7,000
Site 24 NPC N	Retail	7,000
270 Greenwich	Retail	25,000
West and Chambers Streets	Retail	14,000
World Financial Submarket Total		3,550,750
Insurance		
10 Liberty Street/Williams Street	Retail	3,000
2 Gold Street	Retail	24,500
Insurance Submarket Total		27,500
Financial East		
Whitehall Ferry at Whitehall Street	Retail	10,000
Financial East Submarket Total		334,000
Financial West		
Pier A	Retail	7,000
Summary		
	Office	Retail
Total 2009 Additions	3,482,800	111,500
Current Conditions	92,890,649	7,100,000
Total 2009 Space	96,373,449	7,211,500

Manhattan

A number of major office and retail developments with estimated completion dates of 2009 or earlier are planned for Manhattan above Canal Street. On the west side, the Pennsylvania Station Redevelopment will include over 1 million square feet of space (including office, retail, and transit uses), and an office tower of approximately 1.8 million square feet with ground-floor retail has been planned for 375 Ninth Avenue. An 800,000-square-foot Studio City (a television production, office, and retail complex) is also planned for the area. To the north, at Columbus Circle, the multiuse Time Warner Center (including about 880,000 square feet of Class A office space and approximately 550,000 square feet of retail space) is currently under construction.

Major developments planned for the Times Square area include the New York Times headquarters at 8 Times Square (approximately 1.3 million square feet of office space with retail uses) and an 850,000- square-foot office tower, with retail space, at 11 Times Square.

On the East Side, the new Bloomberg building is being constructed on the former Alexander's department store site, and the Con Edison properties in the upper 30s and lower 40s are slated for redevelopment. Farther south on the East Side, the New York University (NYU) Medical

Center and the NYU School of Medicine Bellevue Hospital (in the east 20s and 30s) are planning to expand their campuses.

EMPLOYMENT—FUTURE WITHOUT THE PROPOSED ACTION 2009, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

In the future without the Proposed Action, there will be no employment on the Project Site in 2009.

Lower Manhattan Study Area

Based on the commercial list of future development without the Proposed Action presented above, and assuming a standard employment ratio of four employees per 1,000 square feet of office space and three employees per 1,000 square feet of retail space, the primary study area will gain approximately 14,236 employees by 2009. Most of these employees will be working in the three buildings along Vesey Street to the north of the WTC Site. Estimated employment gains by submarket are presented in Table 9-23, along with a summary of projected 2009 employment.

Table 9-23
Projected Employment in Lower Manhattan Study Area:
2009 Future Without the Proposed Action Under Current Conditions Scenario

	Office[1]	Retail[1]	Total
Employment Gains by Submarket			
World Financial	13,931	201	14,132
Insurance	0	83	83
Financial East	0	30	30
Financial West	0	21	21
City Hall	0	0	0
Projected Employment 2009			
Total 2009 Additions	13,931	334	14,236
2002 Employment[2]	N/A	N/A	354,753
Total 2009 Employees	N/A	N/A	368,989

Notes: 1 For 2009 employment additions, a ratio of four employees per 1,000 square feet was used to estimate employment for office development; a ratio of three employees per 1,000 square feet was used to estimate employment for retail development. These estimates were added to the actual 2000 Employment in the primary study area to obtain 2009 employment for the primary study area.

2 Estimated using 2000 employment estimates from NYMTC and 2002 employment data from the NYS Department of Labor.

HOTELS AND TOURISM—FUTURE WITHOUT THE PROPOSED ACTION 2009, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

Estimates of visitation to the WTC Site in its current state range from 2.0 million visits per year, as reported in other chapters of this GEIS, to 3.6 million, based on a 2002 estimate from the Downtown Alliance. Unlike other analyses in this GEIS, for purposes of the socioeconomic analysis it is more conservative to apply the high range of the estimate to existing conditions (3.6 million visitors) because this chapter examines the potential economic benefits of the incremental visitation that would be generated by the Proposed Action. The 3.6 million visitor estimate is assumed to remain constant in the future without the Proposed Action, because while overall visitation to New York City and Lower Manhattan would be expected to grow over time (as indicated based on historic trends), such growth would be offset by waning interest in visiting an undeveloped WTC Site.

Lower Manhattan Study Area

According to a 2002 survey of visitors to major Lower Manhattan attractions, approximately 8.1 million people visited Lower Manhattan (south of Worth Street) in 2002.[1] This represents approximately 23 percent of the estimated 35.3 million people who visited New York City that same year. A similar study performed in 1998 by the Downtown Alliance concluded that between 20 and 22 percent of visitors to the city visited Lower Manhattan.[2] Assuming that Lower Manhattan continues to capture between 20 and 25 percent of visitors to New York City in the future, visitation to the area will range from 8.6 to 10.7 million in 2009.

New York City

Industry experts expect that visitation will continue to grow, and point to the encouraging fact that hotel occupancy for June 2003 (79.8 percent) was slightly higher than it was in summer 2001 (79 percent), before the September 11 attacks, making June the first month of 2003 in which the occupancy figures exceeded the comparable month of 2001 or 2002.[3] Considering the rapid pace at which visitation recovered after September 11, and the positive industry outlook, it is reasonable to assume that visitation will grow at the pre-September 11 rate (3 percent annually between 1992 and 2000) from 2003 forward. Applying this growth rate to visitation in future years, New York City will see an approximate 43.0 million visitors in 2009.

9.3.3 PROBABLE IMPACTS OF THE PROPOSED ACTION 2009—CURRENT CONDITIONS SCENARIO

The analysis of the Proposed Action's impacts on socioeconomic conditions in the study areas begins with, and builds upon, the 2009 conditions without the Proposed Action described in the preceding section. The following section adds to these conditions the mix of uses planned under the Proposed Action by 2009, describes the changes to the future baseline, and discusses the potential adverse and beneficial impacts associated with those changes.

As described in Chapter 2, "Methodology," section 2.6.3, under the Proposed Action in 2009 the Memorial, museum, and cultural facilities would be complete in the southwest quadrant of the WTC Site; Freedom Tower and the performing arts facility would be complete in the northwest quadrant; and retail uses would be complete on the northeast and southeast quadrants (see Table 2-1). On the additional development areas south of Liberty Street (the Southern Site), the below-grade bus parking and service facilities would be complete as well as the open space and retail base of the tower. The concourse levels across the entire site would have been developed as well as the two surface streets, Fulton and Greenwich, and the open spaces.

---

[1] NYC & Company, *Visitors to Lower Manhattan & Upper Manhattan*, study prepared by Audience Research & Analysis, February 2003.

[2] Alliance for Downtown New York, *A Study of Visitors to Downtown New York*, March 15, 1999.

[3] James Barron, "In New York City, a Tourism Glass Half Full," *New York Times*, August 6, 2003.

POPULATION AND HOUSING—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

The development program for the Project Site does not include a housing component. Therefore, there would be no housing or residential population directly generated by the Proposed Action in 2009.

Primary Study Area

Given that the development program for the Project Site does not include housing, there would be no direct change in the residential population and number of housing units in the primary study area due to development of the Proposed Action. Therefore, as described in section 9.3.2 above, under this scenario there would be an estimated 15,743 housing units in the primary study area in 2009, containing 26,729 residents.

Secondary Study Area

The Proposed Action does not include a housing component as part of its development program, and would not directly affect the population and housing statistics for the secondary study area, as presented in section 9.3.2, above.

COMMERCIAL OFFICE AND RETAIL MARKET—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

By 2009, the Proposed Action would result in the development of approximately 2.6 million square feet of Class A commercial office space on the Project Site, all within Freedom Tower. Given the prominence of this new building within the Manhattan office market, its exceptional accessibility, and its state-of-the-art systems, the office space is expected to be leased at the high end of the range of Class A market rents for Lower Manhattan.

The Proposed Action also includes development of up to 1.0 million square feet of retail space by 2009, located within the four quadrants of the WTC Site, the Southern Site, and in the concourse levels (see Table 2-1). A substantial portion of the new retail space would be located above ground, within the first three floors of the commercial towers. Under the Proposed Action by 2009, all of the retail-base portions of the five towers planned for the Project Site would be built and operational, with over 350,000 square feet of street-level retail space. The remaining retail would be below ground, in the concourse level.

While specific programming for the proposed retail space has not yet been determined, it is currently anticipated that approximately half of the new retail space, or up to 500,000 square feet, would be dedicated to neighborhood retail uses. Neighborhood retail serves the immediate residential and worker populations of an area, and includes such uses as delicatessens, hair salons, and drugstores. The remaining space (up to 500,000 square feet) would be for destination retail uses that sell shopping goods, such as clothing and furniture, and would draw from a larger consumer base, compared with neighborhood retail uses. The 1 million square feet of retail space that could be developed under the Proposed Action would include an undetermined amount of restaurant space. The only programmed restaurant use known at this time would be an approximately 60,000-square-foot space at Freedom Tower, which would include gardens, a café (600 seats), and restaurant (400 seats).

Lower Manhattan Study Area

The 2.6 million square feet of commercial office space built on the Project Site by 2009 would represent approximately 2.7 percent of the 96.4 million square feet of total office space in Lower Manhattan, and approximately 5.3 percent of the 48.9 million square feet of Class A office space in Lower Manhattan in 2009.

Assuming an office market in equilibrium with an 8 percent vacancy rate, the existing stock of office space could provide approximately 4.3 million square feet of additional space between 2004 and 2009, which in itself would not be sufficient to meet the future office demand that would be expected in Lower Manhattan based on recent trends (6.9 million square feet by 2009, based on the estimated annual average of approximately 1.1 million square feet of office space that was absorbed annually in Lower Manhattan from 1998 to 2002). However, when this existing stock is combined with the approximately 3.5 million square feet of new office space expected to be developed in the future without the Proposed Action, the total of 7.8 million square feet of office space available without the Proposed Action would be sufficient to meet historic demand levels. The 2.6 million square feet developed under the Proposed Action would therefore provide the space necessary to attract additional new or returning tenants to Lower Manhattan. The additional office space would also insulate the office market from dramatic upward spikes in rent that can occur under conditions of high office demand and tight supply.

In terms of retail, 1.0 million square feet of retail space built on the Project Site by 2009 would represent approximately 12.2 percent of the estimated 8.2 million square feet of retail space in Lower Manhattan in 2009.

Manhattan

The 2.6 million square feet of commercial office space built on the Project Site by 2009 would represent less than 1 percent of the over 400 million square feet of total office space in Manhattan, and slightly over 1 percent of the estimated 230 million square feet of Class A office space in Manhattan in 2009. The new space on the Project Site would be substantially less than the 14.5 million square feet of total office absorption projected in Manhattan between 2004 and 2009 (based on the approximately 2.42-million-square-foot annual average for office absorption in Manhattan between 1998 and 2000).

In terms of retail space, the up to 1 million square feet of retail space built on the Project Site would represent less than 1 percent of the total retail space in Manhattan in 2009.

EMPLOYMENT—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

Assuming standard employment ratios and vacancy rates described in the notes for Table 9-24, the operations of the development planned under the Proposed Action in 2009 could generate up to 12,921 workers at the Project Site in 2009 (see Table 9-24). Approximately 9,568 of those employees would be office workers in the Freedom Tower.

Lower Manhattan Study Area

With the additional 12,921 employees estimated to be working at the Project Site (described above), there would be a projected 383,239 workers in Lower Manhattan by 2009. The workers at the Project Site would represent approximately 3.4 percent of the total employment in Lower Manhattan by 2009.

Table 9-24
Projected Typical Permanent Employment from Operation of the Proposed Action, 2009

Category	Gross Square Feet	Employment (Full-Time Equivalent)
Office	2,600,000	9,568
Retail	600,000–1,000,000	1,712–2,853
Institutional	380,000	380
Performing Arts Center	2,200 seats	100
Parking	1,200–1,400 spaces	20
Total		**11,780–12,921**

Notes: Office, one employee per 250 gross square feet, and 8 percent vacancy; retail (varies), on average for the anticipated type of retail, one employee per 333 gross square feet, and 5 percent vacancy; institutional, one employee per 1,000 gross square feet; performing arts center, estimated for purposes of this analysis; parking, estimated for purposes of this analysis.

The additional employment generated by the Proposed Action, combined with the projected 15,565 employees generated by projects in the future without the Proposed Action, would result in an estimated 28,486 new employees in Lower Manhattan by 2009. This employment estimate indicates that—similar to NYMTC population projections—NYMTC employment projections (developed prior to September 11, 2001) would be achieved more quickly than anticipated in Lower Manhattan. In 2000, NYMTC projected that approximately 17,500 new jobs would be generated in Lower Manhattan between 2004 and 2009 (based on an annual average of 2,922 employees from 2000 to 2010).

HOTELS AND TOURISM—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

The Proposed Action would not include the development of hotel space by 2009. However, the various components of the project expected to draw visitors to the Project Site—including the Memorial, museum, open spaces, and retail stores—would all be complete by 2009. Based on estimates from the Port Authority, it is expected that the Memorial and museum components alone would generate a peak of 7 to 9 million tourist visits during the 2009 analysis year (the first year of operations). To put this amount in perspective, these 9 million visits to the redeveloped Project Site would be more than the approximately 8.1 million total visitors to all of Lower Manhattan (south of Worth Street) in 2002, and more than double the projected 3.6 million annual visits to the WTC Site in the future without the Proposed Action in 2009 (i.e., visits to the WTC Site assuming no new development). The range of estimated visitation to the Memorial and museum is approximately 1.5 million less than the projected range of visitation for all of Lower Manhattan in the future without the Proposed Action in 2009 (8.6 to 10.7 million visits, as described in section 9.3.2, above).

The tourist visits generated by the Memorial and museum, combined with the additional new visitor trips generated by other project components, such as the open space and retail stores, would have a substantial economic benefit in terms of visitor spending. As described in section 9.3.1, international visitors to New York City in 2001 spent an average of $1,105 per person, while domestic visitors spent an average of $301 per person per trip.[1] Based on spending levels for tourists derived by NYC & Company in 2000 and supplemented with data on domestic and international visitation patterns by NYC & Company from a 1998 Audience Research survey, it is estimated that the 9 million visitors of the Proposed Action's Memorial and museum components alone would generate additional spending on food entertainment/leisure, and shopping in Lower Manhattan ranging from $240 million to $480 million in 2009.[2] The total incremental spending in Lower Manhattan generated by visitation to the Project Site would be greater than this amount, given that there would be additional spending in other categories (e.g., lodging, public transportation), and there would be additional visitors drawn by other components, such as the retail space and cultural facilities.

Lower Manhattan Study Area

Redevelopment of the Project Site under the Proposed Action would add significantly to the visitor base for all of Lower Manhattan in 2009. Based on a visitor study conducted by NYC & Company in 2002[3], visitors to Lower Manhattan averaged 3.3 sites visited, or planned to visit, during their time spent in Lower Manhattan. It can therefore be expected that the new tourism generated by the redeveloped Project Site would generate new visits at other places of interest in Lower Manhattan.

In addition to attracting a greater number of overall visits to Lower Manhattan, the Proposed Action is expected to increase the percentage of both domestic overnight visitors (i.e., those from outside the New York City region) and international visitors to Lower Manhattan. Based on the results of the NYC & Company visitor survey, 65 percent of all tourists surveyed in Lower Manhattan were domestic and international visitors. However, approximately 79 percent of those surveyed who indicated that they visited or planned to visit the WTC Site were domestic or international visitors. Assuming that the demographics of the visitor base to the WTC Site would remain the same in the 2009 Build condition, one could expect an increase in the percentage of non-regional visitors to Lower Manhattan due to the growth in visitation generated by the Proposed Action. This potential shift in visitor demographics has important implications for the Lower Manhattan tourism industry. As described in section 9.3.1, international visitors have a higher average length of stay, spend more money, and visit a higher number of venues in Lower Manhattan, compared with New York City residents and suburban visitors. International tourists are particularly important to New York City tourism, as they spent an average of $1,105 per person per trip in 2001 ($396 of which was allocated to lodging, $208 to food, and $266 to shopping purchases). Domestic visitors to New York City spent an average of $301 per person per trip in 2001, $105 of which was allocated to lodging, $72 to food, and $22 to shopping.[4]

The expected increase in non-regional visitors to the Project Site is one of several factors that would contribute to an increase in the number of overnight stays in Lower Manhattan.

---

[1] NYC & Company, Tourism's Economic Impact on New York City in 2001, 2003.

[2] Spending based on NYC & Company 2000 survey, adjusted to 2003 dollars. The estimated range of spending is bracketed by the assumption that the WTC site visit would be part of either a half-day or full-day trip to Lower Manhattan. The amount represents spending estimated to occur both at the Project Site and in other areas of Lower Manhattan.

[3] NYC & Company, Visitors to Lower Manhattan & Upper Manhattan, February 2003.

[4] NYC & Company, Tourism's Economic Impact on New York City, 2001, 2003.

According to a 1999 visitor survey conducted by the Downtown Alliance,[1] a survey of New York City visitors who did not visit Lower Manhattan said that an important reason for their not coming was that they were not sure there was enough to do. For many visitors to Lower Manhattan, the places of interest and amenities proposed for the Project Site under the Proposed Action would provide the "critical mass" of activities necessary to stay overnight in Lower Manhattan. In particular, the cultural events and retail component would provide new evening activities, which is an important consideration when deciding on a hotel location. Domestic and international visitors that center their trip around visiting the Project Site would be more likely to seek accommodations nearby. This is a critical component of capturing a greater percentage of visitor spending, given that visitors to New York City in 2000 spent approximately 37 percent of their dollars on lodging, and another 21 percent on food, which they tend to purchase near their lodging.

Manhattan

As described above, the Project Site under the Proposed Action would be a regional, national, and international location of interest that would draw new visits to Manhattan. The new visitors generated by the Proposed Action would spend time and money at the Project Site, as well as at other locations in Manhattan. In 1995, visitors to the New York City metropolitan area spent an average of 3.9 nights, and 2.9 nights at a hotel, during their trip.[2] Given such visitation patterns, even if the Project Site is the primary destination of new visitors generated by the Proposed Action, it is reasonable to assume that they would visit numerous places of interest within Manhattan over the course of their stay.

DIRECT RESIDENTIAL DISPLACEMENT—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Given that the Project Site would not contain any housing in the future without the Proposed Action in 2009, redevelopment of the Project Site under the Proposed Action would not directly displace any residential population.

DIRECT BUSINESS DISPLACEMENT—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

The Project Site would not contain any commercial businesses in the future without the Proposed Action in 2009; therefore, redevelopment of the Project Site under the Proposed Action would not directly displace any businesses.

INDIRECT (SECONDARY) RESIDENTIAL DISPLACEMENT—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

As described in section 9.2.1 above, given that there is no residential component to the Proposed Action, the potential for indirect, or secondary, residential displacement is limited in scope. The primary means by which indirect residential displacement could occur is if the Proposed Action were to introduce a "critical mass" of non-residential uses such that the surrounding area became more attractive as a residential neighborhood complex, thereby increasing property values and thus rents in Lower Manhattan, making it difficult for some existing residents to afford their

[1] *A Study of Visitors to Downtown New York*, The Alliance for Downtown New York, March 15, 1999.

[2] *1995 American Travel Survey*, U.S. Department of Transportation, Bureau of Transportation Statistics, October 23, 1997.

homes. A significant socioeconomic impact would therefore occur if the Proposed Action significantly altered the local real estate market, leading to the displacement of existing residents.

The Proposed Action would not trigger a significant change in the real estate market, or accelerate a trend toward changes in neighborhood character that would result in residential displacement within either the primary or secondary study areas. Within Lower Manhattan there has been a strong trend of increasing residential development that has existed for well over two decades, and is unmatched in its rate of growth compared with other parts of the city. From 1980 to 1990, the combined areas of BPC, the Financial District, and southern Tribeca increased their residential population by 71 percent. As described in section 9.3.1 above, between 1990 and 2000, the housing stock in the primary study area increased by 44 percent—much faster than the overall growth for Manhattan (1.6 percent) and New York City (6.9 percent). In just the three-year period from 2000 to 2003, the total residential population of the primary study area increased by 33 percent, and has gained another 2,410 units. Since the 2000 census, over 13,000 residential units have been built or are planned to be built south of Canal Street.

This trend of increasing residential development in Lower Manhattan will continue irrespective of the Proposed Action. In light of this trend, a stated objective of the Proposed Action is to provide cultural and other amenities that help make the area a lively environment all day, every day. The various amenities planned as part of the Proposed Action reflect an existing and projected need from the growing residential population in Lower Manhattan, rather than an effort to alter or accelerate trends in neighborhood character.

Moreover, the housing stock in the primary study area—which would be the most likely area to be affected by upward pressures in the real estate market—does not contain a substantial population that would be vulnerable to displacement. As described in section 9.3.1 above, in 2000 the median household income in the primary study area ($106,362) was more than double the median household income for all of Manhattan ($47,030). Only 6.8 percent of the primary study area's population was below poverty, compared to 19.4 percent in Manhattan as a whole. The primary study area's median contract rent ($1,796) was more than double the median rent for Manhattan ($740). The high incomes of the existing population, coupled with already high rent levels, indicates that this population would not be significantly impacted by upward pressures in the real estate market.

Farther from the Project Site, the secondary study area contains some residential populations that, in general, are more vulnerable to displacement. While the secondary study area as a whole had a median household income of $50,432 in 2000, higher than the Manhattan and New York City medians, the secondary study area had a slightly larger percentage of persons below the poverty level (22.6 percent, compared with 19.4 percent in Manhattan and 20.8 percent in New York City). In particular, Chinatown had a substantially lower median income ($23,867, compared with $47,030 for Manhattan and $38,293 for New York City), and 33.5 percent of Chinatown residents live below the poverty level. However, despite Chinatown's apparent vulnerability, the neighborhood has remained largely insulated from displacement pressures between 1990 and 2000, a period of dramatic residential growth in Lower Manhattan. During that decade, contract rents in the secondary study area increased by 68 percent, while contract rents in Chinatown increased by only 14.5 percent. In addition, between 1990 and 2000, the population in Chinatown that is Asian increased by 6.0 percent, while the percentage of the population that is White decreased by 3.4 percent.

A primary reason for the relatively small increases in Chinatown's contract rents is the large percentage of Chinatown's housing stock that is protected by rent regulation, either through rent control or rent stabilization. Rent control limits the rent an owner may charge for an apartment and restricts the right of an owner to evict tenants. In New York City, the rent control program applies to apartments in residential buildings containing three or more units and constructed before February 1947. For an apartment to be under rent control, the tenant must have been living in that apartment continuously since before July 1, 1971. When a rent controlled apartment becomes vacant, it either becomes rent stabilized or, if it is in a building with fewer than six units, is removed from regulation. Rent stabilization guidelines limit the annual rate at which rents can increase. In New York City, rent stabilization generally applies to apartments in buildings containing six or more units built between February 1, 1947 and January 1, 1974. An apartment is no longer subject to rent stabilization if it becomes vacant and could be offered at a legal regulated rent of $2,000 or more, or if it is occupied by tenants whose total annual household income exceeds $175,000.

Based on Census 2000 and New York City Department of Finance Real Property Assessment Data (RPAD), approximately 367 of the 7,934 renter-occupied dwelling units in Chinatown are in buildings of 5 units or less. In addition, based on RPAD, 250 rental dwelling units in Chinatown have been constructed between 1974 and 2002 (none of which were in buildings of 5 units or less). Therefore, approximately 617 rental dwelling units in Chinatown, representing approximately 7.8 percent of Chinatown's entire renter-occupied housing stock, are not likely to be covered by rent protection. The remaining 92.2 percent of the rental housing stock in Chinatown are in structures containing six or more housing units, and were built prior to 1974, so are potentially afforded protection under either rent control or rent stabilization. The actual percentage of rent-protected units is lower, given that some of the units are no longer subject to rent stabilization based on the stipulations described above. In 1999, approximately 86 percent of renter-occupied units in Manhattan were rent-protected.[1]

Another factor that insulates potentially vulnerable populations in the secondary study area is their distance from the Project Site; potential upward pressures on residential real estate values would be limited to areas that are readily accessible to the new amenities provided by the Proposed Action. Residential units in the secondary study area are located too far from the Proposed Action's planned amenities to make regular use of those amenities. For example, the new open space to be provided at the Project Site would be more than a half mile from residential areas that contain vulnerable populations—farther than what is typically considered a reasonable walking distance for regular use of an open space.

Another means by which the Proposed Action could potentially affect residential property values is if it directly displaced a use or property that had a blighting effect on property values in the area. The long-term presence of an essentially empty, excavated space in the heart of New York's Financial District would be a blight that would make the area less attractive for businesses, residents, and visitors. However, shortly after September 11 the city announced its intention to redevelop the Project Site in a manner that would honor the victims of the terrorist attacks while providing new amenities to the surrounding community. The knowledge that the site would be redeveloped, coupled with disaster relief and residential grant programs, helped preserve the residential attractiveness of Lower Manhattan. Therefore, the WTC Site in its current state has not had the blighting effect on property values that one could expect absent the

[1] New York City Rent Guidelines Board, Housing NYC: Rents, Markets and Trends 2002.

proactive measures employed to rebuild and revitalize Lower Manhattan. In addition, the residential market appears to have largely recovered from the events of September 11. According to the Downtown Alliance, residential vacancy rates in Lower Manhattan have now returned to their Pre-September 11 levels.[1] Rental rates are now exceeding their pre-September 11 levels in some areas of Lower Manhattan.[2]

Overall, the Proposed Action would not result in significant indirect residential displacement in the local residential real estate market. To the contrary, the amenities associated with the Proposed Action would make the area a more lively environment all day, every day, and would serve as a key component of the broader initiative to make Lower Manhattan a more attractive place to live, work, and visit. The proposed development would be compatible with the surrounding area, and would reflect, rather than initiate, the growing residential presence and the demands for neighborhood amenities generated by existing residents. All available evidence—the high rent levels, the lowering vacancy rates, the current and planned levels of rehabilitation, and construction activity—indicates that the trend toward higher shelter costs has been increasing, and would continue irrespective of the Proposed Action.

INDIRECT (SECONDARY) BUSINESS DISPLACEMENT—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Indirect, or secondary, business displacement can occur when an action increases property values and rents in an area, thus making it difficult for some categories of businesses to remain in that area. This section considers the potential for such indirect displacement in both the commercial office and retail markets in Lower Manhattan.

Office Market

As described above, the 2.6 million square feet of Class A office space on the Project Site in 2009 would be a major new addition to the Lower Manhattan office market, representing approximately 5.3 percent of the Class A office space, and approximately 2.7 percent of the total office space in Lower Manhattan. However, the office use would not be a new economic activity in the area, nor would it be of a type that would alter existing economic patterns. The Project Site is located at the heart of the third-largest CBD in the nation, situated among some of the leading financial services companies in the world. Many of the approximately 10,400 office employees generated by the Proposed Action would contribute to an already high percentage of FIRE sector employment in Lower Manhattan.

In addition, the Proposed Action would be consistent with, and would reflect the implementation of, New York City and State policy following September 11, of strengthening Lower Manhattan as an office center. As described in Chapter 1, the long-term presence of an essentially empty, excavated space in the heart of New York's Financial District would be a blight that makes the area less attractive for businesses, residents, and visitors. It is therefore important to New York City's economy that businesses have the confidence that the Project Site will be redeveloped as quickly as possible to reduce its blighting effect on the immediate area. The new office space would accommodate the employment growth that is critical for sustaining Manhattan's role as a leading center of commerce and business.

---

[1] Alliance for Downtown New York, *The Downtown Report,* winter 2003.

[2] Elizabeth O'Brien, *Downtown Express*, Volume 16, No.4, June 24-30, 2003.

The proposed redevelopment of the Project Site, coupled with existing financial incentives and other physical improvements planned for Lower Manhattan, delivers a clear signal to commercial businesses that the city and state are committed to attracting and supporting new investments in Lower Manhattan. Redevelopment under the Proposed Action would reinforce, rather than offset, positive trends in the study area, promote efforts to attract investment to the area, and help to establish a climate for investment. Several large corporations have already responded to the city and state initiatives, either by reopening former business centers or signing or negotiating for new long-term leases in Lower Manhattan. For example, in July 2002 the Bank of New York reopened its 101 Barclay Street technology and operations center, which was badly damaged on September 11. In December 2002, Deutsche Bank opened its U.S. headquarters at 60 Wall Street. Deutsche Bank will maintain at least 6,500 jobs in New York City over a 10-year period, and committed to maintain at least 5,500 of those jobs in Lower Manhattan. More recently, Cantor Fitzgerald, a stock and bond trading firm that suffered the greatest loss of life of any company from the attacks on the WTC, is currently negotiating to buy a 200,000-square-foot office condominium at 10 Hanover Square, a building one block from Wall Street. In addition, attracting and retaining large corporations such as these is an essential component to the welfare of many small businesses in Lower Manhattan that depend on business from the financial services industry for the majority of their revenue.

The new office space under the Proposed Action would be classified as Class A space, comparable to other high-end office space in Lower Manhattan. As part of the future stock of Class A office space, the rental rates in the new space would be driven by the supply of, and demand for, Class A office space in Lower Manhattan. It is expected that the demand for the office space within Freedom Tower would be high, given the prominence of the building and its location in the heart of the Lower Manhattan CBD. However, the demand will be offset by the increased availability of Class A space.

The Proposed Action is not expected to lead to indirect displacement of businesses renting such space due to increases in rental prices for commercial space. The rents for other Class A space in Lower Manhattan (including some Class A space with fewer amenities) would not be expected to increase because those locations would compete for tenants with the Freedom Tower. The new office space under the Proposed Action would provide a substantially higher level of amenities compared with the existing stock of Class B and C space in Lower Manhattan. Given that rental rates for office space are established in large part by the amenities they provide, Class B and Class C space are in different office markets compared with Class A space, with a different customer base in terms of prospective tenants. The Class B and Class C office space would therefore be largely insulated from effects on rental rates due to increases in supply of high-end Class A office space.

A potential means by which the Proposed Action could result in indirect displacement of Class B and Class C office tenants is if the Proposed Action were to initiate or accelerate a trend toward conversion of Class B and Class C office space to residential uses. The Proposed Action would not result in displacement pressures in this manner because the conversion of Class B and Class C office space for residential use is already a strong trend in Lower Manhattan that is expected to continue irrespective of the Proposed Action. As described in section 9.3.1 above, for over a decade several areas in Lower Manhattan, including the Greenwich Street Corridor and Brooklyn Bridge to Battery Park subareas, have experienced substantial growth in residential units attributable to the conversion of non-residential buildings. The various amenities planned as part of the Proposed Action reflect an existing and projected need from the growing residential population in Lower Manhattan, rather than an effort to alter or accelerate trends in neighborhood character.

Retail Market

In considering the potential for the Proposed Action to indirectly displace existing retail businesses, the primary issue of concern is whether the Proposed Action would—through competition generated by the Proposed Action's retail space—attract residents, workers, or visitors who form the customer base of existing businesses in the study area. As described above, the Proposed Action would introduce a prominent new retail presence to Lower Manhattan—up to 1 million square feet of neighborhood and destination retail, a majority of which would be located at the street level, with some portion in a below-ground retail center. With this anticipated mix of retail uses, the Project Site's retail component would be expected to draw a majority of its customer base from a combination of the following groups:

- *The existing, expanding residential population of Lower Manhattan*. The growing residential population in the areas of Lower Manhattan closest to the Project Site would make most frequent use of the neighborhood retail component for day-to-day needs. The destination retail uses on the Project Site are expected to draw residents from all parts of Lower Manhattan, as well as residents from other parts of Manhattan and the larger metropolitan area. Based on a 1992–1993 DOL expenditure survey, consumers in the New York City metropolitan area spent an average of \$6,469 annually on food, \$1,469 on non-food related consumer items, and \$4,715 on shoppers goods.[1]
- *The existing, expanding workforce in Lower Manhattan.* The existing workforce in Lower Manhattan would visit both the neighborhood retail uses (for lunch and home/office necessities), as well as the destination retail stores. Based on an employee spending model developed by the International Council of Shopping Centers (ICSC), the average office worker spends about \$1,441 per year (or about \$5.76 per day, assuming a 250-day work year) on food during the business day and about \$1,151 per year on retail goods.[2]
- *The workforce generated by the Proposed Action.* Similar to the existing workforce described above, the new workers at the Project Site would spend a portion of the workday consumer dollars at the new retail on the Project Site. However, as described below, a substantial portion of this new consumer spending would occur off-site, at existing retail locations in the surrounding area.
- *The existing and project-generated tourists/visitors to Lower Manhattan.* Tourists visiting the Memorial, museum, and other places of interest in Lower Manhattan would frequent both neighborhood and destination retail uses.

---

[1] U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Expenditure Survey, 1992-1993*. Expenditures adjusted to 2002 dollars using the Consumer Price Index for all urban consumers in the New York City metropolitan statistical area. "Food" includes purchases for home consumption and away from home; "non-food consumer items" include housekeeping supplies, personal care products and services, and tobacco products and smoking supplies; "shoppers goods" includes household furnishings and equipment, apparel and services, and reading materials.

[2] International Council of Shopping Centers, *ICSC Research Quarterly,* Volume 2, Number 4, winter 1995. Employee expenditure figures were inflated from their 1987 levels to estimated 2003 levels using the Bureau of Labor Statistics Consumer Price Index for All Urban Consumers in the New York Region.

While the consumer base for the Proposed Action's retail component would be derived, in part, from the customer base of existing businesses, the new workers and visitors directly generated by the Proposed Action would have a substantial spillover effect that would increase visitation and expenditures at existing retail businesses in Lower Manhattan. Added to this spending would be expenditures generated by visitors to the Project Site's office buildings. In addition, there is evidence that employees working in areas that are well served by retail spend significantly more than those served in areas with only limited retail. For example, two studies conducted by ICSC (the 1987 study, comparing expenditures in areas with limited and ample retail, and a 1995 study comparing worker expenditures before and after the opening of a major shopping center in Indianapolis) indicate that workers in downtown areas served by ample retail spend approximately 17 percent more on non-food retail items than workers in areas served by limited retail.

In terms of tourist visits, as described above, according to a NYC & Company survey, tourists to Lower Manhattan in 2002 averaged 3.3 places visited per trip to Lower Manhattan. Therefore, tourists visiting the Project Site would be expected to visit other places of interest in Lower Manhattan, and spend tourist dollars at those destinations. The greater number of domestic and international tourists generated by the Proposed Action would have additional economic benefits to existing retail stores, given that they stay longer, visit more locations, and spend more money on shopping, compared with visitors from the New York City region. In addition, given that a majority of the retail would be at street level, consumer spending from tourists, workers, and residents would naturally flow to existing retail in the surrounding area as retail customers walked among the buildings at, and near, the Project Site.

For Lower Manhattan more generally, the new retail at the Project Site would generate the "critical mass" of destination retail required to capture much of the unrealized consumer spending in Lower Manhattan. A retail study of the Fulton Corridor developed for LMDC in June 2003 found that approximately 51 percent of potential local spending is leaking out of the market area below Chambers.[1] The study claims that potential unmet demand in the region is $1.5 billion, and that new retail could help capture some of that demand. For many Manhattan residents, workers, and visitors, Lower Manhattan does not contain the amount and types of destination retail that would merit a dedicated shopping "trip" to the area; instead, other locations with a greater retail concentration, or a greater diversity in retail options are visited, such as Herald Square and Greenwich Village/SoHo. The retail presence at the Project Site could be viewed as an anchor for the Lower Manhattan shopping experience, drawing customers to Lower Manhattan, many of which would then proceed to shop at other Lower Manhattan locations.

New York City and State have recognized the importance of improving upon the existing retail experience in Lower Manhattan through a number of initiatives that, while separate from the Proposed Action, would facilitate the spillover effects anticipated from the retail planned for the Project Site. As described in detail in section 1.3.7, a series of short-term capital projects have been identified to improve accessibility in and around Lower Manhattan, and enhance the quality of life in Lower Manhattan. These projects include improvements to the Liberty Street pedestrian bridge, streetscape improvements along Broadway between City Hall Park and Battery Park, reopening of the Greenmarket at Liberty Plaza (formerly at the WTC Site), as well

[1] LMDC, Fulton Corridor: Creating a Vision for Enhanced Retail+Arts+Cultural Activities in Lower Manhattan, June 12, 2003, Volume 1, Strategic Plan.

as an overall marketing campaign by the Empire State Development Corporation (ESDC) for Lower Manhattan shopping, restaurants, and cultural institutions. Improvements in the transportation to Lower Manhattan, streetscapes, and way-finding would be especially important to maximizing visitation potential and the spillover effect of the retail presence on the Project Site. According to a 1999 survey conducted by the Downtown Alliance, visitors to Lower Manhattan complained that it was difficult to get to and around because of inadequate signage on the subways and streets.[1]

EFFECTS ON A SPECIFIC INDUSTRY—2009 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

The Proposed Action would not significantly affect business conditions in any specific industry or any category of business within or outside the study area, nor would it indirectly substantially reduce employment or impair the economic viability in a specific industry or category of business. To the contrary, as described above, the proposed uses for the Project Site would support new investments in Lower Manhattan.

9.3.4 FUTURE WITHOUT THE PROPOSED ACTION 2015—CURRENT CONDITIONS SCENARIO

POPULATION AND HOUSING—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

In the future without the Proposed Action, no housing is proposed for the site, and no residential population will be present on the Project Site between 2009 and 2015.

Primary Study Area

Without the Proposed Action, approximately 685 housing units and about 1,257 residents will be added to the primary study area between 2009 and 2015. The BPC subarea will absorb 471 of these units in one building located on Sites 16/17, and another large-scale development (200 units) will be completed in the Broadway Corridor subarea at 60 Broad Street.

As indicated below in Table 9-25, the housing market in the primary study area, under current conditions, will include an approximate 16,430 units by 2015 and the population will grow to about 26,985.

Secondary Study Area

In the future without the Proposed Action, the secondary study area will gain approximately 1,985 housing units between 2009 and 2015, resulting in a population increase of about 3,558 residents (see Table 9-26). About 70 percent of these, or 1,373 units, will be added to the Brooklyn Bridge to Battery Park subarea. By 2015, the secondary study area (under current conditions) will contain approximately 28,320 housing units and have a population of about 63,562 residents.

[1] Alliance for Downtown New York, *A Study of Visitors to Downtown New York*, March 15, 1999.

Table 9-25
Residential Development, Primary Study Area:
2015 Future Without the Proposed Action Under Current Conditions Scenario

Project Address	Housing Units	Estimated Population[1]
Battery Park City		
Site 16/17 BPC N	471	848
Broadway Corridor		
60 Broad Street	200	380
North of WTC Site		
Buildings w/ fewer than 20 units	14	29
Summary		
2015 Additions to Primary Study Area	685	1,257
2009 Under Current Conditions	15,743	26,729
Total 2015 Primary Study Area (Current Conditions)	16,428	27,986

Notes: 1 Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.

Table 9-26
Residential Development, Secondary Study Area:
2015 Future Without the Proposed Action Under Current Conditions Scenario

Project Address	Housing Units	Estimated Population
Brooklyn Bridge to Battery Park		
79 Maiden Lane	400	680
11-15 William Street	373	634
Block 97 (Front, Beeckman, and Peck Streets)	100	170
NYU Downtown Hospital	500	850
Tribeca		
24 Varick Street / 240 West Broadway	32	64
443 Greenwich Street	256	512
Ponte Sites	280	560
55 White Street	20	40
Buildings w/ fewer than 20 units	24	48
Summary		
2015 Additions to Secondary Study Area	1,985	3,558
2009 Under Current Conditions	26,336	59,155
Total 2015 Secondary Study Area (Current Conditions)	28,321	62,713

Notes: 1 Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.

COMMERCIAL OFFICE AND RETAIL MARKET—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

In the future without the Proposed Action, it is assumed that the vacant office building at 130 Liberty Street would be restored or rebuilt to approximately 1.4 million square feet by 2015.

Lower Manhattan Study Area

By 2015 in the future without the Proposed Action, Lower Manhattan will gain a total of 4,949,620 square feet of office space and 226,255 square feet of retail space between 2009 and 2015. About 60 percent of this space will be divided almost evenly between the World Financial and the Financial West submarkets, and another 40 percent, divided almost evenly between the Financial East and Insurance submarkets. By comparison, the City Hall subarea will gain very little (44,000 square feet) office space.

Table 9-27 lists the projects to be completed between 2009 and 2015 in the future without the Proposed Action, based on the Current Conditions Scenario. As indicated in the summary portion of the table, there will be approximately 108.6 million square feet of commercial space located in the primary study area by year 2015.

Table 9-27
Commercial Development, Primary Study Area:
2015 Future Without the Proposed Action Under Current Conditions Scenario

Address	Type of Commercial	Square Footage
World Financial		
Site 26 BPC N	Office	1,887,570
Site 16/17 BPC N	Retail	223,955
World Financial Submarket Total		2,111,525
Insurance		
NYU Downtown Hospital	Office	1,200,000
48 Laight Street /166-172 Hudson Street	Retail	2,300
Insurance Submarket Total		1,203,000
Financial East		
60 Broad Street	Office	800,000
55 Water Street	Office	518,050
Financial East Submarket Total		1,318,050
Financial West		
140 Liberty Street	Office	500,000
Financial West Submarket Total		500,000
City Hall		
408 Greenwich Street	Office	44,000
City Hall Submarket Total		44,000
Summary		
	Office	Retail
Total 2015 Additions	4,949,620	226,255
2009 Total Under Current Conditions	96,373,449	7,100,000
Total 2015 Space	101,323,069	7,326,255

EMPLOYMENT—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

By 2015 without the Proposed Action, there will be an estimated 5,600 employees working on the Project Site in the building located at 130 Liberty Street.

Lower Manhattan Study Area

Between 2009 and 2015, the primary study area will gain approximately 20,477 employees: 679 retail employees and 19,798 office employees. Total employment in the primary study area will grow by approximately 5.5 percent between 2009 and 2015, from approximately 368,989 in 2009 to 389,466 in 2015.

HOTELS AND TOURISM—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

As described under the 2009 future without the Proposed Action condition above, the Downtown Alliance estimates that some 3.6 million people visited the WTC Site in 2002. The 3.6 million visitor estimate is assumed to remain constant in the future without the Proposed Action by 2015, because while overall visitation to New York City and Lower Manhattan would be expected to grow over time (as indicated based on historic trends), such as growth would be offset by waning interest in visiting an undeveloped WTC Site.

Lower Manhattan Study Area

According to a 2002 survey of visitors to major Downtown attractions, approximately 8.1 million people visited Lower Manhattan (south of Worth Street) in 2002.[1] This represents approximately 23 percent of the estimated 35.3 million people who visited New York City that same year. A similar study performed in 1998 by the Downtown Alliance concluded that between 20 and 22 percent of visitors to the city went Downtown.[2] Assuming that Lower Manhattan continues to capture between 20 and 25 percent of visitors to New York City in the future, visitation to the area will range from 10.3 to 12.9 million in 2015.

New York City

As discussed earlier in this section, the number of visitors to New York City increased at a rate of approximately 3 percent per year from 1992 to 2000.[3] Applying this growth rate to visitation in future years (starting with a base of 35.9 million visitors in 2003), New York City will attract approximately 51.4 million visitors in 2015.

---

[1] NYC & Company, *Visitors to Lower Manhattan & Upper Manhattan*, Study prepared by Audience Research & Analysis, February 2003.

[2] Alliance for Downtown New York, *A Study of Visitors to Downtown New York*, March 15, 1999.

[3] NYC & Company.

9.3.5 PROBABLE IMPACTS OF THE PROPOSED ACTION 2015—CURRENT CONDITIONS SCENARIO

The following section adds to the 2015 conditions the mix of uses planned under the Proposed Action by 2015, describes the changes to the future baseline, and discusses the potential adverse and beneficial impacts associated with those changes.

As described in Chapter 2, "Methodology," section 2.6.3, by 2015 it is assumed that the full program for the WTC Site and the tower south of Liberty Street would be developed, with the completion of three towers on the east side of the site and the tower on the Southern Site (see Table 2-2).

POPULATION AND HOUSING—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

The development program for the Proposed Action does not include a housing component. Therefore, there would be no housing or residential population directly generated by the Proposed Action in 2015.

Primary Study Area

Given that the development program for the Project Site does not include housing, there would be no direct change in the residential population and number of housing units housing units in the primary study area due to development of the Project Site. Therefore, as described in section 9.3.4 above, there would be approximately 16,428 housing units in the primary study area in 2015, containing an estimated 27,986 residents.

Secondary Study Area

The Proposed Action does not include housing as part of its development program, and would not directly affect the population and housing statistics for the secondary study area as presented in section 9.3.4, above.

COMMERCIAL OFFICE AND RETAIL MARKET—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

By 2015, the Proposed Action would result in the development of approximately 7.4 million additional square feet of Class A commercial office space at the Project Site, for a total of 10.0 million square feet under the Proposed Action. In addition to Freedom Tower (to be built by 2009), 2.2 million square feet of new office space would be operational in a tower on the northeast quadrant of the WTC Site, two towers containing 1.9 million and 1.7 million square feet of office space would be built on the southeast quadrant, and a tower on the Southern Site would be developed with 1.6 million square feet of office space. Similar to Freedom Tower, given the prominence of these new buildings within the Manhattan office market, their exceptional accessibility, and state-of-the-art systems, the new office space is expected to be leased at the high end of the range of Class A market rents for Lower Manhattan.

There would be no additional retail space built on the Project Site between 2009 and 2015; therefore, as in the 2009 build year, in 2015 the Project Site would include up to 1.0 million square feet of retail space. As described previously, approximately half of the planned retail space would be for neighborhood retail uses, and the remaining half would be destination retail. The only restaurant use currently planned as part of the Proposed Action is an approximately 60,000-square-foot space at Freedom Tower, which would include gardens, a café (600 seats), and restaurant (400 seats), which would be built and operational by 2009.

Lower Manhattan Study Area

The 10.0 million square feet of commercial office space built on the Project Site by 2015 would represent approximately 9.0 percent of the estimated 111.4 million square feet of total office space in Lower Manhattan, and approximately 15.7 percent of the estimated 63.9 million square feet of Class A office space in Lower Manhattan in 2015. Combined with the approximately 5.0 million square feet of office space expected to be developed between 2010 and 2015 in the future without the Proposed Action, the amount of new office space anticipated in Lower Manhattan from 2010 to 2015 (12.4 million square feet in total) would be greater than the estimated 6.9 million square feet of total office absorption projected for Lower Manhattan between 2010 and 2015, based on the 1998–2002 average of approximately 1.16 million square feet per year. The additional space developed under the Proposed Action would provide capacity to increase employment, retain jobs, and attract FIRE employment back to Lower Manhattan without creating excessive demand for office space that would drive up rents.

In terms of retail, the up to 1.0 million square feet of retail space developed at the Project Site would represent up to approximately 12.0 percent of the estimated 8.3 million square feet of retail space in Lower Manhattan in 2015.

EMPLOYMENT—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

Assuming standard employment ratios and vacancy rates described in the notes for Table 9-28, the operations of the development planned under the Proposed Action could generate up to 40,553 workers at the Project Site by 2015 (see Table 9-28). A vast majority of the employees (approximately 36,800) would be office workers.

Table 9-28
Projected Typical Permanent Employment from the Operation of the Proposed Action, 2015

Category	Gross Square Feet	Employment (Full-Time Equivalent)
Office	10,000,000	36,800
Retail	600,000–1,000,000	1,712–2,853
Institutional	380,000	380
Performing Arts Center	2,200 seats	100
Hotel	up to 800 rooms	up to 300
Hotel Function Space	150,000	100
Parking	1,200–1,400 spaces	20
Total		39,412–40,553

Notes: Office, one employee per 250 gross square feet, and 8 percent vacancy; retail (varies), on average for the anticipated type of retail, one employee per 333 gross square feet, and 5 percent vacancy; institutional, one employee per 1,000 gross square feet; performing arts center, estimated for purposes of this analysis; hotel, one employee per 2.67 rooms, assuming 800 rooms; hotel function space, one employee per 1,500 square feet; parking, estimated for purposes of this analysis.

Lower Manhattan Study Area

With the additional 40,553 employees estimated to be working at the Project Site (described above), there would be a projected 437,236 workers in Lower Manhattan by 2015. The workers at the Project Site would represent approximately 9.3 percent of the total employment in Lower Manhattan by 2015.

The total employment generated by the Proposed Action, combined with the employment from other projects, would result in an estimated 82,483 new employees in Lower Manhattan by 2105. Similar to the analysis under the 2009 build condition, with the Proposed Action, employment growth in Lower Manhattan would be achieved at a faster rate than was estimated by NYMTC as part of its 2000 projections. According to those projections (developed before September 11, 2001), Lower Manhattan was expected to grow its employment base by an annual average of approximately 3,000 employees from 2000 to 2010.

HOTELS AND TOURISM—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Project Site

By 2015, the Proposed Action would result in the development of a major new hotel on the northeast quadrant of the Project Site. The hotel would contain approximately 800 rooms, and would also include approximately 150,000 square feet of function space.

Outside of the hotel space, the various components of the Proposed Action expected to draw visitors to the Project Site—including the Memorial, museum, open spaces, and retail stores—would all have been complete by 2009, and would still be operational in 2015. It is anticipated that visitation to the Memorial and museum components would have dropped substantially from a projected peak of 9 million tourist visits in 2009 to an estimated 5.5 million visits in 2015. A decrease in visitation would be expected given that the Memorial and museum would no longer be "new" places of interest, especially within the pool of visitors from the New York City region that have previously visited the Project Site. The 5.5 million-visitor estimate is based on annual visitation rates at other established world-renowned places of interest, such as the Louvre in Paris and the Vietnam Memorial in Washington, D.C. In addition to the visitors to the Memorial and museum, the Project Site would continue to maintain large numbers of visitors to the open spaces and retail stores.

Lower Manhattan Study Area

The 800 rooms provided by the hotel at the Project Site would represent approximately 20.1 percent of the 3,985 hotel rooms south of Canal Street in 2015.

The estimated 5.5 million annual visits to the Memorial and museum in 2015, while less than the visitation in 2009, would still be greater than projected attendance for a largely undeveloped WTC site in 2015, and roughly half of the total visitation expected to Lower Manhattan in the future without the Proposed Action (from 10.3 to 12.9 million) in 2015. Based on spending levels for tourists derived by NYC & Company in 2000 and supplemented with data on domestic and international visitation patterns from a 1998 Audience Research survey, it is estimated that the 5.5 million visitors to the Proposed Action's Memorial and museum components alone would generate additional spending on food, entertainment/leisure, and shopping Lower

Manhattan ranging from $85 million and $170 million annually in 2015 and subsequent years.[1] The total incremental spending in Lower Manhattan generated by visitation to the Project Site would be greater than this amount, given that there would be additional spending in other categories, such as the retail space and cultural facilities.

DIRECT RESIDENTIAL DISPLACEMENT—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Given that the Project Site would not contain any housing in the future without the Proposed Action in 2015, redevelopment of the Project Site under the Proposed Action would not directly displace any residential population.

DIRECT BUSINESS DISPLACEMENT—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

The Project Site would not contain any commercial businesses in the future without the Proposed Action in 2015; therefore, redevelopment of the Project Site under the Proposed Action would not directly displace any businesses.

INDIRECT (SECONDARY) RESIDENTIAL DISPLACEMENT—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

The new hotel and additional 7.4 million square feet of office space developed on the site by 2015 would not affect the findings of the analysis described for the 2009 build year. Overall, the Proposed Action would not result in significant indirect displacement within the local residential real estate market. To the contrary, the amenities associated with the Proposed Action would make the area a more lively environment all day, every day, and would serve as a key component of the broader initiative to make Lower Manhattan a more attractive place to live, work, and visit. The proposed development would be compatible with the surrounding area, and would reflect, rather than initiate, the growing residential presence and the demands for neighborhood amenities generated by existing residents. All available evidence—the high rent levels, the lowering vacancy rates, the current and planned levels of rehabilitation and construction activity—indicates that the trend toward higher shelter costs has been increasing, and would continue irrespective of the Proposed Action. The various amenities planned as part of the Proposed Action reflect an existing and projected need from the growing residential population in Lower Manhattan, rather than an effort to alter or accelerate trends in neighborhood character.

INDIRECT (SECONDARY) BUSINESS DISPLACEMENT—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

Office Market

As described above, the 7.4 million square feet of additional Class A office space developed under the Proposed Action between 2009 and 2015 would bring the total amount of office space on the Project Site to 10.0 million square feet. This would be a major new addition to the Lower Manhattan office market, representing approximately 17.2 percent of the Class A office space,

[1] Spending based on NYC & Company survey adjusted to 2003 dollars. The estimated range of spending is bracketed by the assumption that the WTC Site visit would be part of either a half-day or full-day trip to Lower Manhattan. The amount represents spending estimated to occur both at the Project Site and in other areas of Lower Manhattan.

and 8.8 percent of the total office space in Lower Manhattan in 2015. However, the office use would not be a new economic activity to the area, nor would it be of the type or amount that would alter existing economic patterns. As described in the indirect business displacement discussion for the 2009 build condition, the Project Site is located within the third-largest CBD in the nation, and would provide an office presence similar to existing buildings in the surrounding area. In addition, the Proposed Action would be consistent with, and would reflect the implementation of, New York City and State policy since September 11 of strengthening Lower Manhattan as an office center.

The additional new office space under the Proposed Action is not expected to increase rents for comparable office space in the surrounding area because there would be a sufficient supply of high-end Class A office space to absorb future increases in demand. The new office space would not adversely affect the rental rates for office space containing fewer overall amenities (including some existing Class A, Class B, and Class C office space) because the prices for such space are dictated in large part by the amenities provided, and would therefore be insulated from the increase in supply of high-end Class A space at the Project Site. The new office space would not affect the existing trend of converting Class B and Class C office space to residential uses; such a trend would continue irrespective of the Proposed Action, and would be dictated in large part by the demand for housing in Lower Manhattan relative to the demand for Class B and Class C office space.

Retail Market

There would be no additional retail space built on the Project Site between 2009 and 2015; therefore, in 2015 the Project Site would include up to 1.0 million square feet of retail space. Given that there would be no additional retail development by 2015, the 2009 analysis of potential indirect retail displacement also applies for the 2015 build year. The major difference would be in the composition of the consumer base for the retail space—and the corresponding consumer spillover to existing retail businesses. By 2015, the number of visitors to the Memorial and museum at the Project Site would be reduced compared with 2009 (during their first year of operation). While the retail space at the Project Site and Lower Manhattan as a whole would continue to benefit from a high number of project-generated visitors to the Memorial and museum, the proportion of business generated by those visitors would be less. However, the Project Site would employ up to 26,853 additional workers in 2015, compared with 2009, thereby increasing the proportion of business generated by employees in Lower Manhattan. Added to this spending would be expenditures generated by visitors to the Project Site’s office buildings, and the substantial purchasing power of the growing residential population in Lower Manhattan.

EFFECTS ON A SPECIFIC INDUSTRY—2015 BUILD, BASED ON CURRENT CONDITIONS SCENARIO

The Proposed Action would not indirectly substantially reduce employment or impair the economic viability in a specific industry or business category. By 2015, the Proposed Action would introduce a new hotel to the Project Site, representing approximately 20.5 percent of the total hotel room count for Lower Manhattan. While this new hotel space would compete with existing hotels in Lower Manhattan, the substantial project-generated visitation to Lower Manhattan is expected to have a net benefit on existing hotels, and would therefore not impair their economic viability.

9.3.6 ECONOMIC AND FISCAL BENEFITS OF PROPOSED ACTION: CURRENT CONDITIONS SCENARIO

CONSTRUCTION PERIOD ECONOMIC BENEFITS 2009

The principal model used to estimate the effect of constructing the Proposed Action on the City's economy is the Regional Input-Output Modeling System (RIMS II), developed by the U.S. Department of Commerce, Bureau of Economic Analysis. The model contains data for New York City on 490 economic sectors, showing how each sector affects every other sector as a result of a change in the quantity of its product or service. A similar RIMS II model for New York State, also developed by the U.S. Department of Commerce, has been used to trace the effects on the State economy. The models have been adjusted to reflect the most recent changes in the New York metropolitan area price level. Using these models and the specific characteristics of the development program, the total effect has been projected for New York City and State.

Value of the Construction

The development of the Proposed Action would be undertaken by the private investment of funds into the area in conjunction with the public investment in infrastructure and other public improvements. Based on preliminary estimates of costs per square foot, the investment for construction of the 2009 projected development program at the Project Site is estimated for the purpose of this analysis to equal about $4.16 billion ($4,159 million) in 2003 dollars. This amount includes about $1.46 billion for infrastructure and below grade improvements, about $2.13 billion for commercial office and retail development, and about $568 million for the development of the museum, cultural facilities, performing arts center, and Memorial. In each of the above figures, the amount includes site preparation and hard costs (actual construction), and design, legal, and related costs. The total estimated amount of $4.16 billion reflects the cost of physical improvements to the site, and therefore excludes other values (such as financing, the value of the land, marketing, etc.) not directly a part of the expenditures for construction. The total cost—including financing, the value of the land, real estate payments, management, initial marketing expenditures, and similar expenditures—would be substantially more. To the extent that these activities are publicly funded, existing policies of LMDC and the Port Authority regarding contracting and procurement of goods and services from minority, disadvantaged, and women-owned businesses would apply. It is expected that these policies would facilitate the distribution of direct jobs and economic benefits to minority, disadvantaged, and women-owned businesses.

Because the Port Authority's permanent WTC PATH Terminal project is separate from the Proposed Action, this analysis does not include the economic and fiscal benefits of construction and operation of that independent project. A separate analysis prepared in October 2003 by Appleseed, a New York City-based economic development consulting firm, projects the combined economic effects of the Proposed Action and the proposed permanent WTC PATH Terminal.

Economic and Fiscal Analysis

An analysis of the economic and fiscal impacts associated with the construction expenditures for each of the uses in the Proposed Action has been conducted using the RIMS II models for New York City and New York State. The projected employment and economic benefits from construction of the infrastructure and below-grade investment are presented in Table 9-29. The infrastructure construction includes slurry wall stabilization within the WTC bathtub, memorial wall protection, cultural facilities substructure, memorial substructure space fit-out, vehicular service/maintenance access ramps, streets, and substructure parks. The below-grade construction includes slurry wall construction and excavation, security and ramps, parking and utilities at the Southern Site, utilities within the WTC bathtub, and slurry wall construction and excavation, and parking and truck servicing ramps east of Greenwich Street. The projected employment and economic benefits from construction of the 2009 commercial office and retail development are presented in Table 9-30. The projected employment and economic benefits from construction of

Table 9-29
Employment and Economic Benefits from Construction of the Infrastructure and Below Grade Investment: 2009

	Portion in New York City	Total New York City And State
Employment (Person-years)*		
Direct (Construction)	7,558	7,558
Indirect (Secondary and Induced)	4,147	6,768
Total	11,705	14,326
Wages and Salaries (Millions of 2003 Dollars)		
Direct (Construction)	$475.38	$475.38
Indirect (Secondary and Induced)	$237.41	$376.12
Total	$712.79	$851.50
Total Economic Output or Demand** (Millions of $2003 Dollars)		
Direct (Construction)	$1,461.0	$1,461.0
Indirect (Secondary and Induced)	$688.3	$1,316.9
Total	$2,149.3	$2,777.9
	Fiscal	
Non-Property-Related Tax Revenues*** (Constant 2003 dollars)		
New York City Taxes	$33,406,500	
MTA Taxes	$2,129,300	
New York State Taxes	$69,571,400	
Total	$105,107,200	

Notes:
* A person-year is the equivalent of one person working full-time for a year.
** The economic output or total effect on the local economy derived from the direct construction spending.
*** Includes personal income taxes, corporate and business taxes, sales tax on indirect activity, and numerous other taxes on construction and secondary expenditures.
Source: The characteristics and construction cost of the infrastructure and below grade investment; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

Table 9-30
Employment and Economic Benefits from Construction of the Commercial Office and Retail Development: 2009

	Portion in New York City	Total New York City And State
Employment (Person-years)*		
Direct (Construction)	13,630	13,630
Indirect (Secondary and Induced)	7,321	12,261
Total	20,951	25,891
Wages and Salaries (Millions of 2003 Dollars)		
Direct (Construction)	$803.77	$803.77
Indirect (Secondary and Induced)	$396.42	$654.67
Total	$1,200.19	$1,458.44
Total Economic Output or Demand** (Millions of $2003 Dollars)		
Direct (Construction)	$2,129.8	$2,129.8
Indirect (Secondary and Induced)	$992.9	$1,954.3
Total	$3,122.7	$4084.1
	Fiscal	
Non-Property-Related Tax Revenues*** (Constant 2003 dollars)		
New York City Taxes	$53,193,700	
MTA Taxes	$3,208,100	
New York State Taxes	$112,094,700	
Total	$168,496,500	

Notes:
* A person-year is the equivalent of one person working full-time for a year.
** The economic output or total effect on the local economy derived from the direct construction spending.
*** Includes personal income taxes, corporate and business taxes, sales tax on indirect activity, and numerous other taxes on construction and secondary expenditures.

Source: The characteristics and construction cost of the commercial office and retail space; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

the museum, cultural facilities, performing arts center, and Memorial are presented in Table 9-31. The employment and fiscal benefits from construction of the entire 2009 development program are summarized in Table 9-32.

Employment

The $4.16 billion represents the direct expenditures during the construction period. As a result of the direct expenditures, the direct employment for constructing the entire 2009 development program is estimated at about 24,821 person-years of employment. (A person-year is the equivalent of one employee working full-time for one year.) This amount would represent an

Table 9-31
Employment and Economic Benefits from Construction of the Museum, Cultural Facilities, Performing Arts Center, and Memorial: 2009

	Portion in New York City	Total New York City And State
Employment (Person-years)*		
Direct (Construction)	3,633	3,633
Indirect (Secondary and Induced)	1,952	3,269
Total	5,585	6,902
Wages and Salaries (Millions of 2003 Dollars)		
Direct (Construction)	$214.27	$214.27
Indirect (Secondary and Induced)	$105.68	$174.53
Total	$319.95	$388.80
Total Economic Output or Demand** (Millions of $2003 Dollars)		
Direct (Construction)	$567.8	$567.8
Indirect (Secondary and Induced)	$264.7	$521.0
Total	$832.5	$1,088.8
	Fiscal	
Non-Property-Related Tax Revenues*** (Constant 2003 dollars)		
New York City Taxes	$14,180,700	
MTA Taxes	$855,200	
New York State Taxes	$29,882,900	
Total	$44,918,800	

Notes:
* A person-year is the equivalent of one person working full-time for a year.
** The economic output or total effect on the local economy derived from the direct construction spending.
*** Includes personal income taxes, corporate and business taxes, sales tax on indirect activity, and numerous other taxes on construction and secondary expenditures.
Source: The characteristics and construction cost of the museum, cultural facilities, performing arts center, and memorial; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

average of about 4,137 full-time construction jobs over the next six years. In addition to direct construction employment, total employment resulting from construction expenditures would include jobs in business establishments providing goods and services to the contractors and resulting indirect and generated employment. Based on the model's economic multipliers for New York City industrial sectors, the construction of the entire 2009 development program would generate an additional 13,420 person-years of employment within New York City, bringing the total direct and generated jobs from the construction of the program to 38,241 person-years (see Table 9-32). This amount would represent an average of about 6,373 full-time jobs in New York City over the next six years.

Table 9-32
Summary of the Employment and Economic Benefits from Construction of the Entire 2009 Building Program

	Portion in New York City	Total New York City And State
Employment (Person-years)*		
Direct (Construction)	24,821	24,821
Indirect (Secondary and Induced)	13,420	22,298
Total	38,241	47,119
Wages and Salaries (Millions of 2003 Dollars)		
Direct (Construction)	$1,493.42	$1,493.42
Indirect (Secondary and Induced)	$739.51	$1,205.32
Total	$2,232.93	$2,698.74
Total Economic Output or Demand** (Millions of $2003 Dollars)		
Direct (Construction)	$4,158.6	$4,158.6
Indirect (Secondary and Induced)	$1,945.9	$3,792.2
Total	$6,104.5	$7,950.8
	Fiscal	
Non-Property-Related Tax Revenues*** (Constant 2003 dollars)		
New York City Taxes	$100,780,900	
MTA Taxes	$6,192,600	
New York State Taxes	$211,549,000	
Total	$318,522,500	

Notes: Does not include the effects from the construction of the PATH terminal and concourse, which is a separate action the effects of which would be additional.
* A person-year is the equivalent of one person working full-time for a year.
** The economic output or total effect on the local economy derived from the direct construction spending.
*** Includes personal income taxes, corporate and business taxes, sales tax on indirect activity, and numerous other taxes on construction and secondary expenditures.
Source: The characteristics and construction cost of the 2009 building program; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

In the larger New York State economy, the model estimates that the projected 2009 development would generate 22,298 person-years of indirect employment, bringing the total direct and generated jobs from construction of the projected development to 47,119 person-years of employment. This amount would represent an average of about 7,853 full-time jobs over the next six years.

The direct wages and salaries during the construction period for the 2009 development are estimated at $1.49 billion ($1,493.42 million), in 2003 dollars (see Table 9-32). Total direct and generated wages and salaries resulting in New York City from construction of the entire 2009 development program are estimated at $2.23 billion. In the broader New York State economy, total direct and generated wages and salaries from construction of the entire 2009 development program are estimated at $2.70 billion.

Fiscal Impacts

The construction activity would also generate tax revenues. As indicated above, the total cost for constructing the entire 2009 development program (excluding financing and similar costs) is estimated at approximately $4.16 billion. Based on the U.S. Bureau of Economic Analysis' RIMS II model for New York City and State, the total economic activity, including indirect expenditures (those generated by the direct expenditures), that would result from construction of the entire 2009 development program is estimated at $7.95 billion in New York State, of which $6.10 billion would occur in New York City (see Table 9-32). These amounts would represent an average of about $1.33 billion annually in New York State over the next six years, of which about $1.02 annually would occur in New York City.

The construction activity would have associated with it tax revenues for New York City, the Metropolitan Transportation Authority (MTA), and New York State. Although the development would be assumed to be exempt from paying sales tax on construction materials to the City, MTA, and State, the tax revenues from the construction activity would still be substantial. Based on aggregate data on economic activity and tax receipts for the New York City and State economies from development projects, it is estimated that City tax revenues resulting from construction of a development program such as this would equal approximately 1.65 percent of the development program's total economic activity in New York City. New York State and the MTA (which collects a 0.25 percent sales tax and tax surcharges on business and utilities taxes within the City and the MTA 12-county region) would receive revenues equal to about 2.74 percent of the development's total economic activity in the state. In total, the construction of the entire 2009 development is estimated to generate approximately $318.52 million in tax revenues for New York City, MTA, and New York State, in 2003 dollars (see Table 9-32). Of these tax revenues, the largest portion would come from personal income taxes, corporate, business, and related taxes on direct and induced economic activity. New York State and the MTA would receive about $217.74 million (68.4 percent) of the tax revenues generated by construction of the 2009 development program, and New York City would receive about $100.78 million (31.6 percent) of these tax revenues.

ANNUAL OPERATING BENEFITS 2009

Employment

Based on typical amounts per square foot, the direct employment in the completed 2009 development program is estimated at approximately 11,780 to 12,921 permanent jobs (depending upon the amount of retail space developed), including approximately 9,568 jobs in the office space, 1,712 to 2,853 retail jobs, and about 500 institutional, performing arts, and parking jobs. Not all of this employment would necessarily be new to New York City; some of this employment would probably represent jobs that relocate to the Project Site from elsewhere in the City and might have gone outside the City if the Project Site were not redeveloped. All of the employment would represent jobs that are either new, maintained, or retained in New York City.[1]

Table 9-33 summarizes the typical employment and economic benefits from the annual operation of the completed 2009 building program. The range in the figures in the table reflects the projected range in retail trade space, with the lower figure corresponding to 600,000 square feet and the higher figure corresponding to 1,000,000 square feet. The figures in the table reflect the annual operation of the economic activity on the site and do not include the effect of off-site spending by visitors to the site, which would be additional. Total employment resulting from the annual operation of the completed 2009 development program, in addition to the above direct employment, would include jobs in business establishments providing goods and services to the occupants of the building and resulting in indirect and generated employment. Based on the RIMS II model's economic multipliers for New York City industrial sectors, the completed 2009 development program would generate up to an additional 10,839 permanent jobs within New York City, bringing the total direct and generated jobs from the annual operation of the completed 2009 development program to 23,760 jobs within New York City (see Table 9-33). In the larger New York State economy, the model estimates that the completed 2009 development program would generate up to 15,603 jobs of indirect employment, bringing the total direct and generated jobs from the annual operation of the completed 2009 development to 28,524 jobs in New York State.

Based on average salaries by economic sector in Manhattan from the New York State Department of Labor, typical direct wages and salaries from the annual operation of the completed 2009 development program are estimated at $1.23 to $1.27 billion ($1,233.09 to $1,272.53 million in 2003 dollars, see Table 9-33).[2] Total direct and generated wages and salaries resulting in New York City from the annual operation of the completed 2009 development are estimated at $2.05 to $2.10 billion. In the broader New York State economy, total direct and generated wages and salaries from the annual operation of the completed 2009 development are estimated at $2.35 to $2.42 billion. All figures are in 2003 dollars.

---

[1] A separate report on the economic impact of redeveloping the WTC Site, prepared in October 2003 for LMDC by Appleseed, a New York City-based development consulting firm, provides estimates of the combined operational benefits of the Proposed Action and the separate Port Authority permanent WTC PATH Terminal project assuming a specific rate for this "substitution effect."

[2] The tenants of the office space are unknown at this time. Based on the mix of current firms in Lower Manhattan as well as the prior tenants in the World Trade Center, it was assumed for purposes of typical salaries that representative office tenants (indicated with there corresponding North American Industrial Classification code) would be equal amounts of sector 514, professional and technical services (which includes legal services, architectural and engineering services, computer-related services, and management consulting services); 523, financial investment and related activity; 524, insurance and related activity; and 92, federal, state, and local government. To the extent that in actuality the building is occupied by a greater amount of finance tenants than assumed in this analysis, the salaries and related economic activity and taxes would be greater than projected here. To the extent that the building is occupied by a greater amount of government, the salaries and related economic activity and taxes would be less.

Table 9-33
Typical Employment and Economic Benefits from the Annual Operation of the Completed 2009 Building Program

	Portion in New York City	Total New York City And State
Employment (Full-Time Equivalent Jobs)		
Direct (On-site)	11,780 – 12,921	11,780 - 12,921
Indirect (Secondary and Induced)	10,585 – 10,839	15,188 - 15,603
Total	22,365 – 23,760	26,968 - 28,524
Wages and Salaries (Millions of 2003 Dollars)		
Direct (On-site)	$1,233.09 - $1,272.53	$1,233.09 - $1,272.53
Indirect (Secondary and Induced)	$815.27 - $831.68	$1,116.98 - $1,143.25
Total	$2,048.36 - $2,104.21	$2,350.07 - $2,415.78
Total Economic Output or Demand* (Millions of $2003 Dollars)		
Direct (On-site)	$4,198.07 - $4,295.92	$4,198.07 - $4,295.92
Indirect (Secondary and Induced)	$3,035.08 - $3,094.87	$4,327.96 - $4,419.28
Total	$7,233.15 - $7,391.79	$8,526.03 - $8,715.20
	Fiscal	
Typical Tax Revenues, Exclusive of PILOTs** (Constant 2003 dollars)		
New York City Taxes	$112,023,300 - $122,517,800	
MTA Taxes	$7,245,300 - $7,879,900	
New York State Taxes	$212,687,500 - $225,394,400	
Total	$331,956,100 - $355,792,100	

Notes: The range in the above figures reflects the projected range in retail trade space, with the lower figure corresponding to 600,000 square feet and the higher figure corresponding to 1,000,000 square feet. The above figures reflect the annual operation of the economic activity on the site and do not include the effect of off-site spending by visitors to the site, which would be additional.

* The economic output or total effect on the local economy derived from the direct spending during annual operation.

** Includes personal income taxes, sales tax, corporate and business taxes, and numerous other taxes on direct and secondary expenditures.

Source: The characteristics of the 2009 building program; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

The direct effect on the local economy from the completed 2009 development program, measured as economic output or demand, is estimated at approximately $4.20 to $4.30 billion annually. Based on the U.S. Bureau of Economic Analysis' RIMS II model for New York City and State, the total economic activity, including indirect expenditures (those generated by the direct expenditures), that would result from operation of the 2009 development is estimated at $8.53 to $8.72 billion annually in New York State, of which $7.23 to $7.39 billion annually would occur in New York City (see Table 9-33).

Fiscal Impacts

The annual operation of the completed 2009 development would have associated with it tax revenues for New York City, MTA, and New York State. These tax revenues would include property tax-related revenues in the form of payment-in-lieu-of-taxes (PILOTs) and non-property tax revenues. In total, the operation of the completed 2009 development program is estimated to generate approximately $331.96 to $355.79 million annually (in 2003 dollars) in non-property related tax revenues for New York City, MTA, and New York State. Of these tax revenues, the largest portion would come from personal income taxes, sales tax, corporate and business taxes, and similar taxes on the direct and generated economic activity from the completed 2009 development. New York State and the MTA would receive about $219.93 to $233.27 million of the tax revenues generated by the operation of the completed 2009 development, and New York City would receive about $112.02 to $122.52 million of these tax revenues. As is the case with the employment from the development, not all of these tax revenues would necessarily be new to New York City; some of these revenues might represent amounts that would accrue from the Project Site that currently occur elsewhere in the City and might have gone outside the City if the WTC Site were not redeveloped. All of the revenue would represent amounts that are either new, maintained, or retained in New York City. All of the property PILOTs from the new development would be new to New York City.

CONSTRUCTION PERIOD ECONOMIC BENEFITS 2015

Value of the Construction

The second phase of development would add 7.2 million square feet of commercial office and up to 750,000 square feet of hotel and conference space. Based on preliminary estimates of costs per square foot, the investment for construction of the incremental projected development program is estimated for the purpose of this analysis to equal about $4.06 billion in 2003 dollars. As with the previous construction costs, this amount includes site preparation and hard costs (actual construction), and design, legal, and related costs. The total estimated amount of $4.06 billion reflects the cost of physical improvements to the site, and therefore excludes other values (such as financing, the value of the land, marketing, etc.) not directly a part of the expenditures for construction. The total cost—including financing, the value of the land, real estate payments, management, initial marketing expenditures, and similar expenditures—would be substantially more.

Including the 2009 development, total construction cost associated with the entire building program is estimated at approximately $8.22 billion (in 2003 dollars). This amount, does not include the cost of the WTC PATH Terminal and concourse, which is a separate action the cost of which would be additional.

Economic and Fiscal Analysis

The employment and economic benefits from construction of the incremental 2015 building program are presented in Table 9-34. The employment and economic benefits from construction of the entire building program are summarized in Table 9-35.

<u>*Employment*</u>

As a result of the direct expenditures, the direct employment for constructing the entire development program is estimated at about 50,833 person-years of employment (see Table 9-35). Assuming the entire development is completed by 2015, this amount would represent an average of about 4,236 full-time construction jobs over the next 12 years. In addition to direct construction employment, total employment resulting from construction expenditures would include jobs in business establishments providing goods and services to the contractors and resulting indirect and generated employment. Based on the model's economic multipliers for New York City industrial sectors, the construction of the entire development program would generate an additional 27,391 person-years of employment within New York City, bringing the total direct and generated jobs from the construction of the program to 78,224 person-years (see Table 9-35). This amount would represent an average of about 6,519 full-time jobs in New York City over the next 12 years.

Table 9-34
Employment and Economic Benefits from Construction of the Incremental 2015 Building Program

	Portion in New York City	Total New York City And State
Employment (Person-years)*		
Direct (Construction)	26,012	26,012
Indirect (Secondary and Induced)	13,971	23,400
Total	39,983	49,412
Wages and Salaries (Millions of 2003 Dollars)		
Direct (Construction)	$1,533.96	$1,533.96
Indirect (Secondary and Induced)	$756.55	$1,249.41
Total	$2,290.51	$2,783.37
Total Economic Output or Demand** (Millions of $2003 Dollars)		
Direct (Construction)	$4,064.6	$4,064.6
Indirect (Secondary and Induced)	$1,895.0	$3,729.8
Total	$5,959.6	$7,794.4
	Fiscal	
Non-Property-Related Tax Revenues*** (Constant 2003 dollars)		
New York City Taxes	$101,518,100	
MTA Taxes	$6,122,400	
New York State Taxes	$213,928,500	
Total	$321,569,000	

Notes:
* A person-year is the equivalent of one person working full-time for a year.
** The economic output or total effect on the local economy derived from the direct construction spending.
*** Includes personal income taxes, corporate and business taxes, sales tax on indirect activity, and numerous other taxes on construction and secondary expenditures.
Source: The characteristics and construction cost of the incremental 2015 building program; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

In the larger New York State economy, the model estimates that the projected development would generate 45,698 person-years of indirect employment, bringing the total direct and generated jobs from construction of the projected development to 96,531 person-years of employment. This amount would represent an average of about 8,044 full-time jobs over the next 12 years.

Table 9-35
Summary of the Employment and Economic Benefits from Construction of the Entire Building Program

	Portion in New York City	Total New York City And State
Employment (Person-years)*		
Direct (Construction)	50,833	50,833
Indirect (Secondary and Induced)	27,391	45,698
Total	78,224	96,531
Wages and Salaries (Millions of 2003 Dollars)		
Direct (Construction)	$3,027.38	$3,027.38
Indirect (Secondary and Induced)	$1,496.06	$2,454.73
Total	$4,523.44	$5,482.11
Total Economic Output or Demand** (Millions of $2003 Dollars)		
Direct (Construction)	$8,223.2	$8,223.2
Indirect (Secondary and Induced)	$3,840.9	$7,522.0
Total	$12,064.1	$15,745.2
	Fiscal	
Non-Property-Related Tax Revenues*** (Constant 2003 dollars)		
New York City Taxes	$202,299,000	
MTA Taxes	$12,315,000	
New York State Taxes	$425,477,500	
Total	$640,091,500	

Notes: Does not include the effects from the construction of the PATH terminal and concourse, which is a separate action the effects of which would be additional.
* A person-year is the equivalent of one person working full-time for a year.
** The economic output or total effect on the local economy derived from the direct construction spending.
*** Includes personal income taxes, corporate and business taxes, sales tax on indirect activity, and numerous other taxes on construction and secondary expenditures.
Source: The characteristics and construction cost of the incremental 2015 building program; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

The direct wages and salaries during the construction period for the entire development are estimated at $3.03 billion in 2003 dollars (see Table 9-35). Total direct and generated wages and salaries resulting in New York City from construction of the entire development program are estimated at $4.52 billion. In the broader New York State economy, total direct and generated wages and salaries from construction of the entire development program are estimated at $5.48 billion.

<u>Fiscal Impacts</u>

Based on the U.S. Bureau of Economic Analysis' RIMS II model for New York City and State, the total economic activity, including indirect expenditures (those generated by the direct expenditures), that would result from construction of the entire building program is estimated at $15.75 billion in New York State, of which $12.06 billion would occur in New York City (see Table 9-35). Assuming the development is completed by 2015, these amounts would represent an average of about $1.31 billion annually in New York State over the next 12 years, of which about $1.01 billion annually would occur in New York City.

Although the development would be assumed to be exempt from paying sales tax on construction materials to the City, MTA, and State, the other tax revenues associated with the development would be substantial. In total, the construction of the entire development is estimated to generate approximately $640.09 million in tax revenues for New York City, MTA, and New York State, in 2003 dollars (see Table 9-35). Of these tax revenues, the largest portion would come from personal income taxes, corporate, business, and related taxes on direct and induced economic activity. New York State and the MTA would receive about $437.79 million of the tax revenues generated by construction of the Proposed Action, and New York City would receive about $202.30 million of these tax revenues.

ANNUAL OPERATING BENEFITS 2015

Employment

Based on typical amounts per square foot, the direct employment in the completed 2015 development program is estimated at approximately 39,412 to 40,534 permanent jobs (depending upon the amount of retail space developed), including approximately 36,800 jobs in the office space, from 1,712 to 2,853 retail jobs, 400 hotel jobs, and about 500 institutional, performing arts, and parking jobs. Not all of this employment would necessarily be new to New York City; some of this employment would probably represent jobs that relocate to the Project Site from elsewhere in the City, and might have gone outside the City if the Project Site were not redeveloped. All of the employment would represent jobs that are either new, maintained, or retained in New York City.

The employment and economic benefits from the annual operation of the incremental 2015 building program are present in Table 9-36.

Table 9-37 summarizes the typical employment and economic benefits from the annual operation of the completed building program. As with the 2009 development, the range in the figures in the table reflects the projected range in retail trade space, with the lower figure corresponding to 600,000 square feet and the higher figure corresponding to 1,000,000 square feet. The figures in the table reflect the annual operation of the economic activity on the site and do not include the effect of off-site spending by visitors to the site, which would be additional. Total employment resulting from the annual operation of the completed development program, in addition to the above direct employment, would include jobs in business establishments providing goods and services to the occupants of the buildings and resulting in indirect and generated employment. Based on the RIMS II model's economic multipliers for New York City industrial sectors, the completed development program would generate an additional 39,191 to 39,438 permanent jobs within New York City, bringing the total direct and generated jobs from the annual operation of the completed development program to 78,603 to 79,991 jobs within

Table 9-36
Employment and Economic Benefits from the Annual Operation of the Incremental 2015 Building Program

	Portion in New York City	Total New York City And State
Employment (Full-Time Equivalent Jobs) (Full-Time Equivalent Jobs)		
Direct (On-site)	27,632	27,632
Indirect (Secondary and Induced)	28,606	40,869
Total	56,238	68,501
Wages and Salaries (Millions of 2003 Dollars)		
Direct (On-site)	$3,315.01	$3,315.01
Indirect (Secondary and Induced)	$2,215.98	$3,019.92
Total	$5,530.99	$6,334.93
Total Economic Output or Demand* (Millions of $2003 Dollars)		
Direct (On-site)	$11,323.72	$11,323.72
Indirect (Secondary and Induced)	$8,220.26	$11,322.21
Total	$19,543.98	$22,645.93
	Fiscal	
Typical Tax Revenues, Exclusive of PILOTs** (Constant 2003 dollars)		
New York City Taxes	$274,292,100	
MTA Taxes	$17,710,000	
New York State Taxes	$546,290,000	
Total	$838,292,100	

Notes: The above figures reflect the annual operation of the economic activity on the site and do not include the effect of off-site spending by visitors to the site, which would be additional.
* The economic output or total effect on the local economy derived from the direct spending during annual operation.
** Includes personal income taxes, sales tax, corporate and business taxes, and numerous other taxes on direct and secondary expenditures.
Source: The characteristics of the 2015 building program; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

New York City (see Table 9-36). In the larger New York State economy, the model estimates that the completed development program would generate 56,057 to 56,460 jobs of indirect employment, bringing the total direct and generated jobs from the annual operation of the completed development to 95,469 to 97,013 jobs in New York State.

Table 9-37
Typical Employment and Economic Benefits from the Annual Operation of the Completed Building Program

	Portion in New York City	Total New York City And State
Employment (Full-Time Equivalent Jobs)		
Direct (On-site)	39,412 - 40,553	39,412 - 40,553
Indirect (Secondary and Induced)	39,191 - 39,438	56,057 - 56,460
Total	78,603 - 79,991	95,469 - 97,013
Wages and Salaries (Millions of 2003 Dollars)		
Direct (On-site)	$4,548.10 - $4,587.54	$4,548.10 - $4,587.54
Indirect (Secondary and Induced)	$3,031.25 - $3,047.66	$4,136.90 - $4,163.10
Total	$7,579.35 - $7,635.20	$8,685.00 - $8,750.64
Total Economic Output or Demand* (Millions of $2003 Dollars)		
Direct (On-site)	$15,521.79 - $15,619.64	$15,521.79 - $15,619.64
Indirect (Secondary and Induced)	$11,255.34 - $11,316.13	$15,650.17 - $15,739.49
Total	$26,777.13 - $26,935.77	$31,171.96 - $31,359.13
	Fiscal	
Typical Tax Revenues, Exclusive of PILOTs** (Constant 2003 dollars)		
New York City Taxes	$386,315,400 - $396,809,900	
MTA Taxes	$24,955,300 - $25,589,900	
New York State Taxes	$758,977,500 - $771,684,400	
Total	$1,170,248,200 - $1,194,084,200	

Notes: The range in the above figures reflects the projected range in retail trade space, with the lower figure corresponding to 600,000 square feet and the higher figure corresponding to 1,000,000 square feet. The above figures reflect the annual operation of the economic activity on the site and do not include the effect of off-site spending by visitors to the site, which would be additional.

* The economic output or total effect on the local economy derived from the direct spending during annual operation.

** Includes personal income taxes, sales tax, corporate and business taxes, and numerous other taxes on direct and secondary expenditures.

Source: The characteristics of the 2015 building program; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; and the tax rates by applicable jurisdiction.

Based on average salaries by economic sector in Manhattan from the NYSDOL, typical direct wages and salaries from the annual operation of the completed development program are estimated at $4.55 to $4.59 billion (in 2003 dollars).[1] Total direct and generated wages and salaries resulting in New York City from the annual operation of the completed development are estimated at $7.58 to $7.64 billion. In the broader New York State economy, total direct and

[1] For the office development, the same mix of economic sectors of the tenants was assumed as was for the 2009 development. As was the case for that development, to the extent that in actuality the buildings are occupied by a greater amount of finance tenants than assumed in this analysis, the salaries and related economic activity and taxes would be greater than projected here. To the extent that the buildings are occupied by a greater amount of government, the salaries and related economic activity and taxes would be less.

generated wages and salaries from the annual operation of the completed development are estimated at $8.69 to $8.75 billion. All figures are in 2003 dollars.

The direct effect on the local economy from the completed development program, measured as economic output or demand, is estimated at approximately $15.52 to $15.62 billion annually. Based on the U.S. Bureau of Economic Analysis' RIMS II model for New York City and State, the total economic activity, including indirect expenditures (those generated by the direct expenditures), that would result from operation of the completed development is estimated at $31.17 to $31.36 billion annually in New York State, of which $26.78 to $26.94 billion annually would occur in New York City (see Table 9-37).

Fiscal Impacts

The annual operation of the completed development would have associated with it tax revenues for New York City, MTA, and New York State. As with the 2009 development, these tax revenues would include property tax-related revenues in the form of payment-in-lieu-of-taxes (PILOTs) and non-property tax revenues. In total, the operation of the completed development program is estimated to generate approximately $1.17 to $1.19 billion annually in 2003 dollars in non-property related tax revenues for New York City, MTA, and New York State. Of these tax revenues, the largest portion would come from personal income taxes, sales tax, corporate and business taxes, and similar taxes on the direct and generated economic activity from the development. New York State and the MTA would receive about $783.93 to $797.27 million annually of the tax revenues generated by the operation of the completed development, and New York City would receive about $386.32 to $396.81 million annually of these tax revenues. As is the case with the employment from the development, not all of these tax revenues would necessarily be new to New York City; some of these revenues might represent amounts that would accrue from the Project Site that currently occur elsewhere in the City, and might have gone outside the City if the WTC Site were not redeveloped. All of the revenue would represent amounts either new, maintained, or retained in New York City. All of the property PILOTs from the new development would be new to New York City.

9.3.7 PUBLIC SECTOR OPERATING COSTS OF PROPOSED ACTION

Because the population on the Project Site has been, and is proposed to be, entirely non-residential, only those community facilities that serve the non-residential population are affected by the Proposed Action. These facilities include the New York City Police Department (NYPD) and the New York City Fire Department (FDNY). However, the Port Authority owns the WTC Site, and polices all areas under its jurisdiction. Therefore, in addition to considering the effects on the NYPD and FDNY, this section also considers demands on the Port Authority Police Department (PAPD).

As described in Chapter 8, "Community Facilities," with full development in 2015, the Proposed Action would add an average of approximately 62,500 workers and visitors to the Project Site over the course of each day. Because approximately 18,700 of these people would be visitors, the population on the Project Site at any give time would be fewer than the 62,500 estimate of total daily visitors. Prior to September 11, approximately 47,900 workers and visitors frequented the WTC Site each day, with approximately 7,300 visitors. Therefore, under the Proposed Action the total number of workers and visitors at any given time would be similar to Pre-September 11 conditions.

The additional population of approximately 62,500 workers and daily visitors to the Project Site would be expected to generate some additional demand for police and fire services, but staffing and operational changes would be made as necessary. Given that the Proposed Action would generate approximately the same, or greater, levels of economic and fiscal benefits compared to Pre-September 11 conditions, the tax revenues generated by the Proposed Action would similarly offset the demands on community facilities.

9.4 PRE-SEPTEMBER 11 SCENARIO

9.4.1 BASELINE CONDITIONS

POPULATION AND HOUSING—PRE-SEPTEMBER 11 SCENARIO

The Pre-September 11 Scenario is based on the 2000 census, which was used to establish the Current Conditions Scenario in section 9.3.1, above. (See that section for tables and narrative defining Pre-September 11 conditions and highlighting changes that occurred between the 1990 and 2000.)

COMMERCIAL OFFICE AND RETAIL MARKET—PRE-SEPTEMBER 11 SCENARIO

Project Site Office Market

Prior to September 11, the Project Site contained over 11 million square feet of office space in six buildings—five on the WTC Site, and one on the Southern Site at 130 Liberty Street. The building at 130 Liberty Street contained approximately 1.4 million square feet of space, and the buildings on the WTC Site totaled over 9.6 million square feet. The site's Twin Towers, 1 and 2 WTC, were 110 stories each and contained approximately 4.7 million square feet of Class A office space per building. Table 9-38 provides characteristics of WTC properties net leased by SPI/Westfield, including 1, 2, 4, and 5 WTC. Three WTC (2.3 million square feet New York Marriott World Trade Center Hotel) and 6 WTC (537,700 square feet occupied by the United States Custom House) are not included. As shown in the table, the overall office vacancy rate before September 11 for 1, 2, 4, and 5 WTC was approximately 3.4 percent—a figure slightly lower than the average vacancy rate for Lower Manhattan (3.6 percent) and for Manhattan as a whole (3.7 percent).

The average contract rent for office space on the site, all of which was Class A, was significantly lower than the Class A average market rent for Lower Manhattan and Manhattan as a whole. For 2001, the projected average contract rent for WTC space was $35.67 per square foot, close to $17 per square foot less than the average market rent for Class A space in Lower Manhattan ($52.37 per square foot) and almost $29 per square foot less than the average market rent for Manhattan ($64.51 per square foot). This discrepancy was due to the fact that the buildings, all completed in the 1970s, were owned and operated by the Port Authority, a public agency, and subject to numerous long term leases, many of which were negotiated many years ago.

Lower Manhattan Office Market

During the second quarter of 2001, Lower Manhattan contained approximately 107.8 million square feet of office space. Over half of that space (about 58.5 million square feet) was considered to be Class A, and 80 percent of all Lower Manhattan Class A space was divided evenly between two submarkets: World Financial and Financial East. Class B space was concentrated in the Financial East area, while the City Hall submarket contained 40 percent of all Class C space.

Table 9-38
Pre-September 11 Office Space Characteristics, World Trade Center Site

Building	Building Stories	Rent Roll Office Square Feet[1]	Office Vacancy Rate	2001 Average Contract Rent[2]
1 WTC (North Tower)	110	4,358,604	3.3%	$34.61
2 WTC (South Tower)	110	4,173,612	3.6%	$38.66
4 WTC (Southeast Plaza Building)	6	470,978	5.5%	$25.28
5 WTC (Northeast Plaza Building)	6	612,958	0.0%	$30.80
Total	232	9,616,152	3.4%	$35.67

Notes: 1 Based on square footage contained in May 31, 2000 rent roll (not remeasured); subgrade rentable square footage not included.
2 Includes base rent and PILOT and operating and maintenance escalations.
Sources: Port Authority and Cushman & Wakefield.

Table 9-39 shows inventory and average asking rents for each of the submarkets in the Lower Manhattan during the months immediately preceding September 11.

Table 9-39
Lower Manhattan Office Inventory and Rents, 2001

	Class A		Class B		Class C		Total	
Submarket	Inventory (sq. ft.)	Total Avg. Rent	Inventory (sq. ft.)	Total Avg. Rent	Inventory (sq.ft.)	Total Avg. Rent	Inventory (sq.ft.)	Total Avg. Rent
World Financial	24,331,521	$51.20	3,144,677	$38.6	1,396,150	$0.00	28,872,348	$46.50
City Hall	5,181,465	$54.57	4,920,258	$35.97	5,823,613	$34.46	15,925,336	$39.63
Insurance	5,178,179	$42.03	7,170,386	$38.86	4,393,706	$38.32	16,742,271	$39.04
Financial West	663,315	$45.61	4,256,528	$33.96	1,569,242	$36.79	6,489,085	$34.82
Financial East	23,410,332	$45.86	14,836,586	$40.99	1,533,966	$39.75	39,780,884	$43.57
Total	58,764,812	$47.51	34,328,435	$37.70	14,716,677	$37.08	107,809,924	$41.17
Percent of Total Study Area	54.5%	115.4%	31.8%	91.6%	13.7%	90.1%	100.0%	

Source: Cushman & Wakefield, second quarter 2001.

As shown in Table 9-39, the average asking rent for Lower Manhattan office space in 2001 prior to September 11 was $41.17 per square foot, with Class A space drawing approximately $47.50 per square foot and Classes B and C, $37.70 and $37.08 per square foot, respectively. Average asking rents for Class A space ranged from a low of $42.03 per square foot in the Insurance submarket to a high of $54.57 per square foot in the City Hall area—a difference of 30 percent between the two extremes. Average asking rents for Classes B and C did not vary as much among submarkets, with Class B showing a 20 percent difference between the high and low asking rents and Class C, only a 15 percent difference.

The office vacancy rate in Lower Manhattan was fairly low in the period immediately preceding the September 11 attacks. As indicated in Table 9-40, the overall vacancy rate was 6.5 percent, with vacancies in all submarkets except for Financial West falling between 3.4 percent and 7.3 percent. The vacancy rate for the Financial West subarea was 21.5 percent.

Table 9-40
Lower Manhattan Office Vacancy, 2001

Submarket	Class A		Class B		Class C		Total	
	Total Available Space	Total Vacancy Rate	Total Available Space	Total Vacancy Rate	Total Available Space	Total Vacancy Rate	Total Available Space	Total Vacancy Rate
World Financial	663,549	2.7%	330,220	14.8%	0	0.0%	993,769	3.4%
City Hall	149,998	2.9%	218,869	4.4%	278,784	4.8%	647,651	4.1%
Insurance	146,682	2.8%	465,472	6.5%	495,176	11.3%	1,107,230	6.6%
Financial West	76,650	11.6%	1,087,106	25.5%	231,959	14.8%	1,395,715	21.5%
Financial East	1,549,005	6.6%	1,270,859	8.6%	70,738	46.0%	2,890,602	7.3%
Total	2,585,884	4.4%	3,372,526	9.8%	1,076,557	7.3%	7,034,967	6.5%
Percent of Total Study Area	36.8%	67.7%	47.9%	150.8%	15.3%	112.3%	100..0%	

Source: Cushman & Wakefield, second quarter 2001.

The Lower Manhattan office market has changed in many ways since 2001. The total inventory in 2003 is about 14 percent less than it was in 2001—a difference of about 15 million square feet. The most dramatic change occurred in Class A inventory, which decreased by approximately 23 percent from 2001 to 2003. The decrease in Class A space occurred primarily in the World Financial submarket, with the loss of the WTC and surrounding buildings. A small fraction of that loss was countered by an increase of 750,000 square feet of Class A space in Financial West between 2001 and 2003.

Average asking rents in Lower Manhattan decreased dramatically from September 11, 2001 to 2003. Overall, the average asking rental rate dropped by 13.2 percent, from $41.17 per square foot in 2001 to $36.36 per square foot in 2003. Class C asking rents dropped by the greatest percentage (23 percent, or $8.59 per square foot) and Class A, the least (13 percent, or $5.94 per square foot). Among Lower Manhattan submarkets, asking rents in the Insurance area experienced the most drastic decrease (dropping by 24 percent from $39.04 per square foot in 2001 to $29.85 per square foot in 2003), while average asking rents in the Financial West fell by just $1.10 per square foot.

Though severe, the changes in vacancy and asking rental rates that occurred in the Lower Manhattan market from 2001 to 2003 were not entirely out of context with those occurring in the Manhattan market as a whole. Between 2000 and 2003, vacancy rates in the Manhattan market increased from 3.7 percent to 12.5 percent, and the overall asking rental rate dropped from $64.51 to $41.12 per square foot. Class A asking rental rates decreased by about 25 percent, from $64.51 to $48.48 per square foot.

Trends in absorption for Lower Manhattan have also followed the overall Manhattan trend over the past several years; however, as illustrated in Figure 9-18 (under Manhattan office market discussion above), the post-September 11 drop in absorption was more dramatic than the decrease exhibited in Midtown and Midtown South. Figure 9-19 shows absorption over time for each Lower Manhattan submarket.

Manhattan Office Market

At year-end 2000, Manhattan's office inventory totaled 392,447,539 square feet. Approximately 57 percent of that space was located in Midtown, 27 percent in Lower Manhattan, and 15 percent in Midtown South. As indicated in Table 9-41, vacancy rates were low (3.6 percent) across all

Table 9-41
Manhattan Office Market Characteristics, Year-End 2000

Submarket	Total Inventory (sq.ft.)	Total Avg. Rent	Class A Avg. Rent	Total Vacancy Rate	Total Year End Absorption
Midtown	224,320,504	$54.65	$67.11	3.6%	4,005,937
Midtown South	60,614,279	$46.70	$50.23	3.6%	1,120,403
Lower Manhattan	107,512,756	$43.29	$52.37	3.6%	5,108,915
Total	392,447,539	$50.12	$64.51	3.7%	10,235,255

Source: Cushman & Wakefield, Marketbeat Series (Manhattan), year-end 2000.

submarkets, absorption was high, and total average asking rents ranged from $43.29 per square foot in Lower Manhattan to $54.65 per square foot in Midtown. The average asking rent for Class A space was by far the highest in Midtown ($67.11 per square foot).

As shown in Figure 9-18, net absorption in the Manhattan office market has declined since 2001, due in large part to the effects of September 11. Absorption was positive for all three submarkets from 1998 through 2000, with absorption increasing each year for Midtown and Midtown South, while in Lower Manhattan, absorption dipped between 1998 and 1999 and then jumped by 4.2 million square feet between 1999 and 2000. Manhattan as a whole experienced negative absorption rates by year-end 2001 and in 2002. However, even with the impacts of September 11, the Manhattan office market has absorbed an average of approximately 3.0 million square feet per year over the four-year period from 1998 to 2002. Variations occur by submarket, with Lower Manhattan averaging 1.1 million square feet per year, Midtown 2.0 million square feet per year, and Midtown South -109,536 per year.

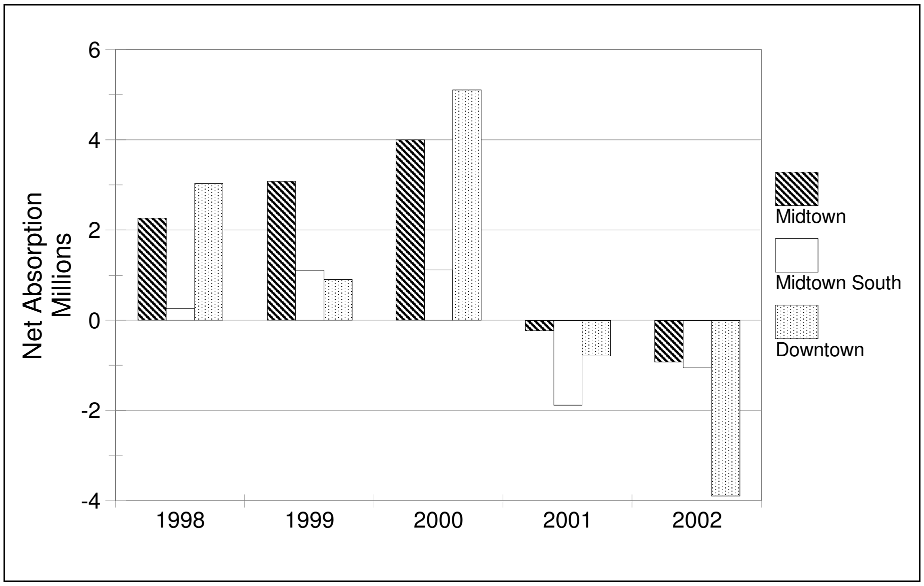
Project Site Retail Market

The Mall at the WTC, located immediately beneath the World Trade Center Plaza, contained a wide range of shops and restaurants, located in approximately 350,000 square feet of retail space.[1] Over the course of the 1990s, the Mall began drawing in high-end retail tenants, such as Coach, Ann Taylor, J. Crew, and Banana Republic. The mall benefited from foot traffic of over 200,000 people each day, and by 2001, it had become an extremely lucrative retail hub, generating sales of approximately $900 per square foot, or three times the national average.[2]

[1] Mitchell, Donna. "World Trade Center Lease Still Up for Grabs." Online article written for the International Council of Shopping Centers (ICSC). May 2001. (http://www.icsc.org/srch/sct/current/sct0501/page311.html) Site last accessed on 8/22/03.

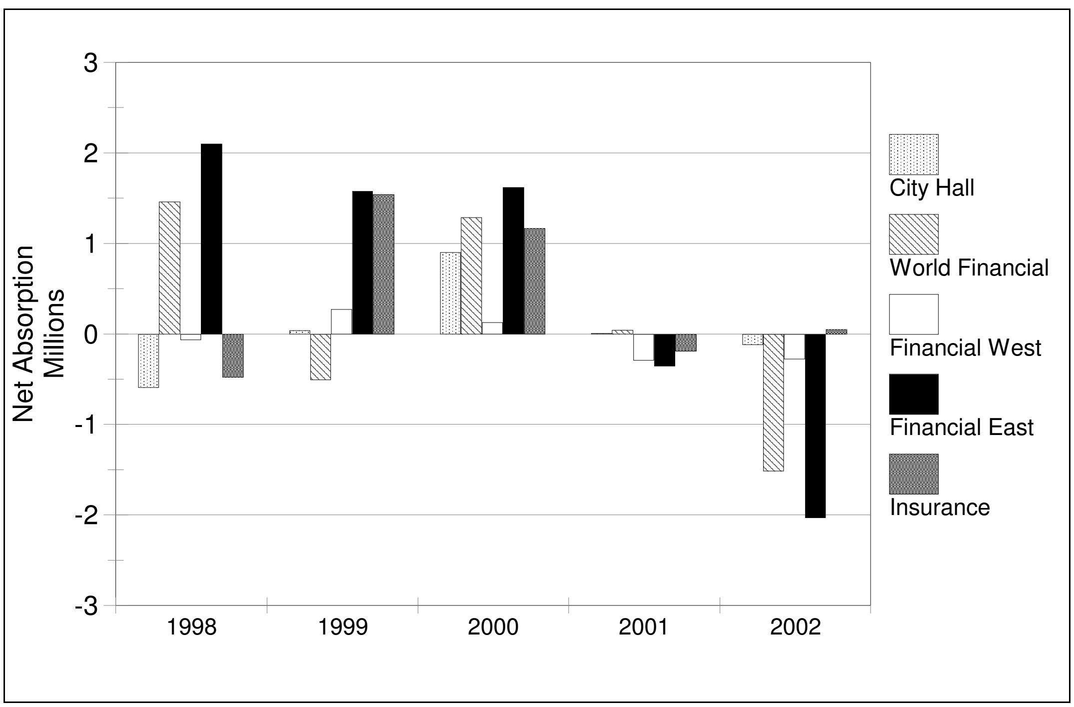
[2] Wall Street Journal Real Estate Journal. 6/10/02. (http://homes.wsj.com/propertyreport/propertyreport/20020610-starkman.html) Site last accessed on 8/22/03.

Figure 9-18
Year-End Net Absorption, Manhattan Submarkets, 1998–2002



Source: Cushman & Wakefield, Marketbeat Series (Manhattan), year-end reports 1998–2002.

Figure 9-19
Year-End Net Absorption, Lower Manhattan Submarkets, 1998–2002



Source: Cushman & Wakefield, Marketbeat Series (Manhattan), year-end reports 1998–2002.

Lower Manhattan Study Area Retail Market

At the end of March 2001, there were 1.6 million square feet of available retail space in Lower Manhattan, and the average asking rent for that space was $60 per square foot. Like the overall Manhattan retail market, the Lower Manhattan market was slowing down prior to September 11—evidenced by the fact that average asking rents dropped from $67 per square foot in September 2000 to $60 per square foot in March of 2001.

Manhattan Retail Market

At the end of March 2001, there was a total of 10.6 million square feet of available retail space (or 1,850 stores) in Manhattan and the average asking rent for that space was $98 per square foot. At the end of September 2001, Manhattan had 11.3 million square feet of available retail space (1,744 stores), with an average asking rent of $84 per square foot. Though part of this drop in asking rent can be attributed to the negative effects of September 11 on the city's economy, some of the drop was underway in the months before September 11, as regional and national economies began to slow.

EMPLOYMENT MARKET—PRE-SEPTEMBER 11 SCENARIO

Project Site Employment

Before September 11, 2001, there were approximately 47,885 employees working on the Project Site. Roughly 42,830 worked in buildings on the WTC Site, and another 5,050 worked at 130 Liberty Street. As shown in Table 9-42, most employees on the WTC Site (a combined 34,172) were working in the Twin Towers (1 and 2 WTC). Another 3,639 people worked in 5 WTC, and the reminder worked in 4 WTC (1,861 employees) and 6 WTC (1,913 employees).

Table 9-42
Employment on the WTC Site Before September 11, 2001

Building	Employment
1 WTC	19,175
2 WTC	14,997
3 WTC	1,249
4 WTC	1,861
5 WTC	3,639
6 WTC	1,913
130 Liberty Street	5,051
Total	**47,885**

According to a NYMTC report on post-September 11 demographic and socioeconomic forecasting, over 55 percent of employment in all buildings destroyed or damaged by the September 11 attacks was in the finance sector, and another 9 percent was in the insurance industry.[1]

[1] This data is based on employment in all buildings damaged or destroyed in the September 11 attacks, so it includes more than twice the employment located on the actual WTC Site. However, absent industry-specific data for the site itself, these figures provide a reasonable approximation of the industry mix on

Lower Manhattan Employment

In 2000, there were approximately 426,008 employees in Lower Manhattan—roughly 71,255 employees more than are currently working in the primary study area.[1]

As shown in Table 9-43, approximately 40 percent of all primary study area employees were working in the FIRE sector in 2000 and another 36 percent were employed by the services sector. (After September 11, this relationship reversed so that in 2002, the services industries sector represented about 40 percent of all employment and the FIRE sector, 35 percent.) Within the services sector in year 2000, 36 percent of employees worked in business service, and within FIRE 65 percent of employees worked in the Security and commodity brokers, dealers, exchanges, and services subsector.

Table 9-43
Primary Study Area Employment, 2000

Industry	Number	Percent
Private Sector Employment	331,840	77.9%
Agriculture, Forestry, Fishing, and Hunting	164	0.0%
Mining	2	0.0%
Construction Industries	4,486	1.4%
Manufacturing	16,826	5.1%
Transportation, Communication, and Utilities	13,385	4.0%
Wholesale Trade	9,633	2.9%
Retail Trade	34,990	10.5%
Financial, Insurance, and Real Estate	130,370	39.3%
Services	120,886	36.4%
Unclassified	1,097	0.3%
Public Sector Employment	94,168	22.1%
Total Employment	**426,008**	**100%**

Note: For private sector employment industry subcategories, “Percent” represents percent of private sector employment, not total employment. For main public and private sector headings, “percent” represents the relative contribution of private and public employment to total employment.

Sources: Number of firms was obtained from NYSDOL 2000 employment data. Employment was estimated using NYSDOL data to generate an employment estimate that is consistent with NYMTC employment estimates.

Compared with Manhattan, the primary study area had a high concentration of FIRE sector employment. About 38 percent of all FIRE employment in Manhattan and 32 percent of all New York City FIRE employment was located within the primary study area, making the primary study area more than twice as concentrated in the financial, insurance, and real estate industries as Manhattan, and about three times as concentrated in those industries as New York City.

the site. Information from New York Metropolitan Transportation Council. *Demographic and Socioeconomic Forecasting Post September 11th Impacts.* Tables 2 and 3.

[1] See 4.2, “Methodology,” above, for a description of how these estimates were calculated.

Manhattan/New York City Employment

Approximately 3.1 million people were employed in New York City's private sector in 2000, and almost two-thirds of those employees (or 1.9 million people) worked in Manhattan (see Table 9-44). In both Manhattan and New York City as a whole, the greatest concentration of employment was in the services industry. The largest proportion of all services employment was in the business services and health services subsectors. In Manhattan, 31 percent of all services employment was in business services, and 14 percent was in health services. In New York City, 24 percent was in business services and 23 percent, in health services. Public sector employment in New York City totaled approximately 549,100 in 2000—comprising about 15 percent of all employment in the city. Of those employees, approximately 66,700 worked for the federal government, 42,100 for the state government, and 440,300 for local government agencies.

Table 9-44
Manhattan and New York City Employment, 2000

Industry	Manhattan		NYC	
	Employment	Percent of Total	Employment	Percent of Total
Manufacturing	141,246	7.3%	240,479	7.9%
Agriculture and Mining	2,289	0.1%	4,724	0.2%
Construction	34,233	1.8%	121,294	4.0%
Transportation and Public Utilities	90,635	4.7%	200,967	6.6%
Trade	343,479	17.8%	603,586	19.8%
Wholesale Trade	110,418	5.7%	181,328	5.9%
Retail Trade	233,061	12.0%	422,258	13.8%
FIRE	418,236	21.6%	486,793	15.9%
Services	900,950	46.6%	1,388,253	45.4%
Unclassified	4,020	0.2%	8,601	0.3%
Total Private Sector Employment	1,935,092	100.0%	3,054,698	100.0%

Source: New York State Department of Labor, second quarter 2000.

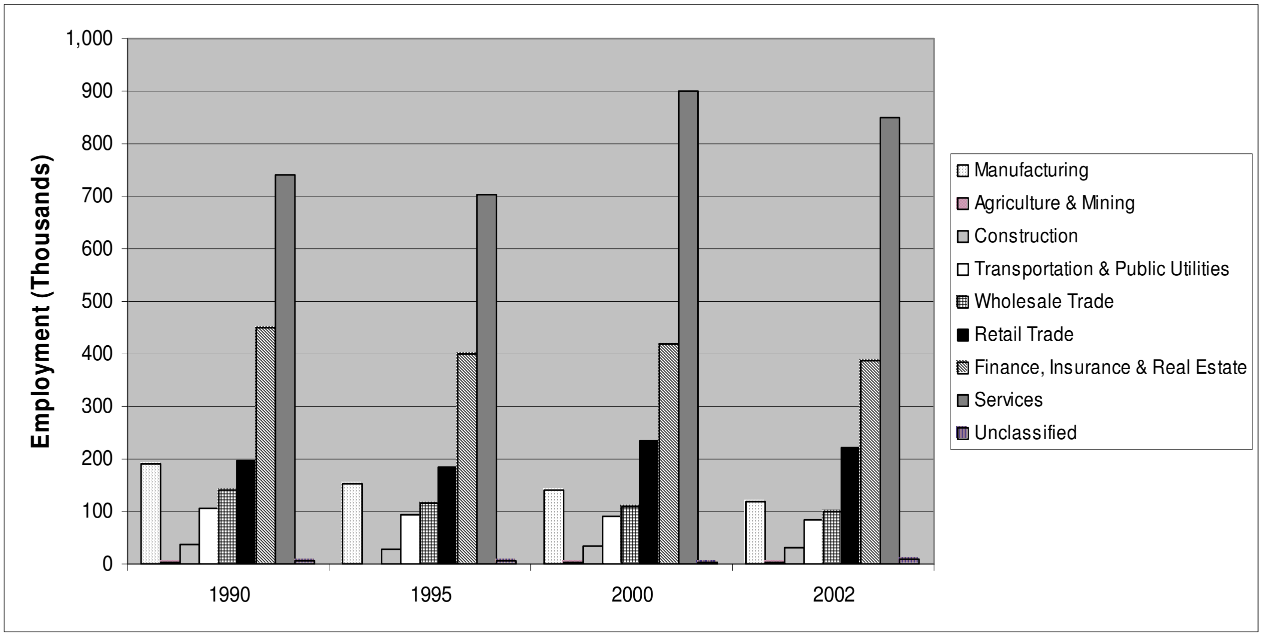
In Manhattan, 418,236 employees (22 percent of the private labor force) worked in the FIRE sector, and another 18 percent worked in retail or wholesale trade. By comparison, New York City's workers were less concentrated in the FIRE industries (16 percent of private sector employees) and somewhat more concentrated in the trade industries (20 percent of private sector employees).

Between 1990 and 2000, private sector employment in Manhattan grew by about 3.4 percent, or 64,400 workers. The largest absolute growth occurred in the services sector, which gained about 161,525 employees, growing by 22 percent over the 10-year period. Retail trade also experienced significant growth—adding about 34,800 employees to its 1990 base of 198,273—while employment in wholesale trade declined by about 29,000 workers (or 30 percent).

Employment in the FIRE industries decreased by over 7 percent from 1990 to 2000, from about 451,400 to 418,200 employees.

As shown in Figure 9-20, employment in every private sector industry except for "Unclassified" decreased between 2000 and 2002. The services industry lost the greatest number of employees

Figure 9-20
Total Private Sector Employment in Manhattan, 1990–2002



Source: New York State Department of Labor.

(about 51,000 and 32,000 employees, respectively) while the wholesale trade and manufacturing industries lost the greatest percentage of employees (about 10 percent and 16 percent, respectively).

HOTELS AND TOURISM—PRE-SEPTEMBER 11 SCENARIO

Project Site Hotels and Tourism

According to a report compiled by Urbanomics for LMDC, 2 million people visited the WTC Observation Deck in 2000. In addition to those visitors, over 660,000 customers went to the Windows on the World restaurant and meeting facilities at the top of 1 WTC, and another 48,000 people attended meetings at the Oval Room and the World Trade Institute meeting and conference facilities.

The WTC Site held one large hotel on the corner of West and Liberty Streets. The 22-story (2.3 million square feet) New York Marriott World Trade Center Hotel (3 WTC) included 817 rooms, extensive meeting facilities, restaurants, a fitness center, and exhibit space on the mezzanine level of 1 WTC. The facility opened in 1981 as the Vista International Hotel and performed increasingly well through the 80s and 90s. In 1998 and 1999, the hotel was registering an occupancy rate of about 90 percent, and weekday room rates in 2000 were $279–$359. The hotel attracted clientele from across the globe and held more than 5,900 functions and events during 1999.[1]

[1] Port Authority and LMDC. Urban Planning and Transportation Study: Lower Manhattan and the World Trade Center Site. September, 2002. pp. 3.14 and 3.15.

Lower Manhattan Hotels and Tourism

According to estimates from the Downtown Alliance and NYC & Company, between 20 percent and 22 percent of all visitors to New York City made trips to Lower Manhattan before September 11—indicating that in 2000, Lower Manhattan welcomed between 7.2 and 8.0 million visitors. Chief attractions in the Downtown area included: Statue of Liberty/Ellis Island, the World Trade Center Observation Deck, the New York Stock Exchange, the South Street Seaport, Winter Garden, and the National Museum of the American Indian.

Prior to September 11, there were five major hotels in Lower Manhattan: the Marriott at the World Trade Center, the Marriott at the World Financial Center (opened in 1991), the Millennium (1992), Regent Wall Street (1999), and Embassy Suites (2000). Only the Marriott at the World Trade Center was destroyed in the September 11 attacks, but as discussed in the "Current Conditions Scenario" section above, most Lower Manhattan hotels closed temporarily—some for over a year—after September 11.

Though hotel activity increased markedly during the 1990s as the financial sector and the Lower Manhattan residential and retail base grew, Lower Manhattan still captured a smaller percentage of overnight visitors than other parts of the city. Although 84 percent of the tourists visiting Downtown in 1998 stayed overnight in New York City, few of them—only 9 percent of the 4.2 million overnight visitors who went Downtown—stayed overnight Downtown. Lack of overnight stays Downtown has serious implications for the area, since visitors to New York City in 2000 spent approximately 37 percent of their dollars on lodging and another 21 percent on food, which they tend to purchase near their lodging.

Manhattan Hotels and Tourism

New York City's hotel and tourism market gained strength throughout the 1990s and was remarkably robust by 2000. Between 1992 and 2000, visitor numbers surged from 28.9 million to 36.2 million, and overnight visitors to the city grew by more than 5 million to 18.4 million. Due to a combination of rapidly escalating demand and a less rapid increase in hotel rooms, hotel occupancy rates rose from 68.9 percent to 84.6 percent, and prices increased from an average of $136 in 1992 to $237 in 2000.[1]

Of the 36.2 million visitors to New York in 2000, about 69 percent were pursuing leisure and 31 percent, business. Approximately 82 percent came from the United States, and 18 percent traveled to the city from abroad. Direct visitor spending increased to $17 billion from $10 billion in 1992.

At the start of 2001, the upward trend in visitation, spending, and overnight stays in New York began to slow as the economy softened. After September 11, tourism and hotel occupancy figures dropped due to the negative impact of the attacks on travel. At the end of 2001, hotel occupancy had slipped to approximately 73 percent from 85 percent in 2000, and room rates had dropped from an average of $237 to $204 per day.[2]

---

[1] Information from NYC & Company "Tourism's Economic Impact on New York City, 2000" as cited in Port Authority and LMDC, *Urban Planning and Transportation Study: Lower Manhattan and the World Trade Center Site*, September, 2002. p. 3.5.

[2] NYC & Company, Hotels: NYC Briefing Sheet, updated July 28, 2003. And PANYNJ and LMDC, *Urban Planning and Transportation Study: Lower Manhattan and the World Trade Center Site*. September, 2002. p. 3.5-3.6.

9.4.2 FUTURE WITHOUT THE PROPOSED ACTION 2009— PRE-SEPTEMBER 11 SCENARIO

This section describes the socioeconomic conditions that would be expected in the future without the Proposed Action, presenting development and population changes that would occur in the various geographic areas of analysis (the Project Site and the primary and secondary study areas) by 2009 based on pre-September 11 conditions—that is, it describes the development and socioeconomic conditions that would have been present by 2009, had the events of September 11, 2001, never occurred.

All population and development estimates in this section are based solely on the lists of future development without the Proposed Action for each scenario—the list of projects that are known to be planned for the study areas, and the list of projects that were generally known and expected prior to September 11.

As described in section 9.2, "Methodology," the Pre-September 11 Scenario represents a reasonable depiction of conditions that would have been expected in each study area and subarea absent the events of September 11. It accounts for development and activity that were present on the WTC Site before September 11, 2001, and then adjusts that baseline to account for projects that had been initiated at the time and would likely have been completed by the 2009 analysis year.

POPULATION AND HOUSING—2009 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

There was no housing on the Project Site prior to September 11, and there were no plans for residential development on the site by 2009.

Primary Study Area

In the future without the Proposed Action under the Pre-September 11 Scenario, the primary study area would have grown by approximately 4,430 housing units by 2009, resulting in a population increase of roughly 8,251. Approximately 65 percent of these units would have been in BPC and another 20 percent (or 920 units) in the North of WTC Site subarea. Table 9-45 lists projects that would have been completed by 2009 had the events of September 11 never occurred, along with the number of housing units and estimated population for each project. Many of the projects listed were also included in the Current Conditions Scenario (Table 9-20); those projects that were not included (or had different characteristics) in Table 9-45 are in bold italic font.

Secondary Study Area

Under Pre-September 11 future conditions without the Proposed Action, the secondary study area would have gained approximately 2,283 housing units and 4,815 residents by 2009. About 40 percent of the new units would have been built in the Broooklyn Bridge to Battery Park subarea, and the remainder in Chinatown (738 units, or 32 percent of new units) and Tribeca (653 new units, or about 27 percent of all new units). Although the Brooklyn Bridge to Battery Park subarea would have gained over 150 more units than Chinatown, Chinatown would have grown by approximately 475 more residents than its southern neighbor, due to the larger average household size in Chinatown.

Table 9-45
Residential Development, Primary Study Area:
2009 Future Without the Proposed Action Under Pre-September 11 Scenario

Project Address	Housing Units	Estimated Population[1]
Battery Park City		
20 River Terrace BPC	***335***	***603***
22 River Terrace BPC	***293***	***527***
Site 2 BPC S	628	1,130
Site 18B, BPC	268	482
Site 19B, BPC	264	475
Site 23 BPC N	269	484
Site 24 NPC N	250	450
Site 3 BPC S	500	900
Broadway Corridor		
130 Fulton Street	62	118
21-23 Maiden Lane	30	57
233 Broadway	150	285
Buildings w/ fewer than 20 units	***23***	***44***
Greenwich South Corridor		
90 Washington Street	387	658
North of WTC Site		
110-120 Church Street	***389***	***817***
53 Park Place	***116***	***244***
270 Broadway	***87***	***183***
75-81 Nassau Street	***28***	***59***
125 Church Street	50	105
38-44 Warren Street	***24***	***50***
West and Chambers Streets	***260***	***546***
Buildings w/ fewer than 20 units	***16***	***34***
Summary		
2009 Additions to Primary Study Area	4,429	8,251
2000 Census	7,723	12,079
Total 2009 Primary Study Area (Pre-Sept. 11 Conditions)	12,152	20,330

Notes: [1] Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.
[2] Developments in ***bold italics*** are those that differ from projects listed under the Current Conditions Scenario. For the most part, these projects do not appear on the Current Conditions list.

Table 9-46 lists projects that would have been completed in the secondary study area by 2009 had the events of September 11 never occurred, along with the number of housing units and estimated population for each project. Those projects listed in bold italic font are ones that differ from the projects listed in Table 9-21, the comparable Current Conditions Scenario table.

Table 9-46
Residential Development, Secondary Study Area:
2009 Future Without the Proposed Action Under Pre-September 11 Scenario

Project Address	Housing Units	Estimated Population
Brooklyn Bridge to Battery Park		
150 Nassau Street	140	238
80 South Street	125	213
10 Liberty Street/ William Street	284	483
85 South Street	60	102
56 Pine Street	***78***	***133***
85 John Street	***160***	***272***
Buildings w/ fewer than 20 units	***45***	***77***
Chinatown		
101 Worth Street	***329***	***888***
117 Worth Street	330	891
52 Franklin Street	30	81
65 Worth Street	30	81
Buildings w/ fewer than 20 units	***19***	***52***
Tribeca		
448 Greenwich Street	120	240
79 Laight Street	26	52
79 Worth Street	35	70
200 Church Street	20	40
3-9 Hubert Street	34	68
416 Washington Street	87	174
258 West Street	110	220
18 Leonard Street	***20***	***40***
25 North Moore Street	***48***	***96***
124 Hudson	***26***	***52***
Buildings w/ fewer than 20 units	***127***	***254***
Summary		
2009 Additions to Secondary Study Area	2,283	4,815
2000 Census	19,420	46,539
Total 2009 Secondary Study Area (Pre-Sept. 11 Conditions)	21,703	51,354

Notes: [1] Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.
[2] Developments in bold italics are those that differ from projects listed under the Current Conditions Scenario. For the most part, these projects do not appear on the Current Conditions list.

COMMERCIAL OFFICE AND RETAIL MARKET—2009 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site Office Market

Prior to September 11, 2001, the Project Site included over 11 million square feet of commercial space. The building at 130 Liberty Street contained approximately 1.4 million square feet of space, and the buildings on the WTC Site totaled over 9.6 million square feet. Section 3.3.2 of this GEIS presents characteristics of the office and retail space that existed on the WTC Site before September 11. Because there were no plans to expand or significantly alter the commercial square footage of buildings on the Project Site, the site would have looked much the same in 2009 as it did in 2001.

Lower Manhattan Study Area

Under Pre-September 11 future conditions without the Proposed Action, the Lower Manhattan study area would have gained approximately 2,978,940 square feet of office space and about 105,400 square feet of retail space by 2009. New office development would have been concentrated in the World Financial and Financial East submarkets, and the majority of new retail development (53,400 square feet) would have been channeled into the World Financial submarket.

Future development projects for this scenario are listed in Table 9-47. As indicated in the summary section of the table, the Lower Manhattan study area would have had an estimated total of 110,788,864 square feet of commercial space by 2009 had the events of September 11 never occurred.

Table 9-47
Commercial Development, Lower Manhattan Study Area:
2009 Future Without the Proposed Action under Pre-September 11 Conditions

Address	Type of Commercial	Square Footage
World Financial		
270 Greenwich	Office	1,354,940
270 Greenwich	Retail	25,400
Site 18B, BPC	Retail	14,000
Site 23 BPC N	Retail	7,000
Site 24 NPC N	Retail	7,000
World Financial Submarket Total		1,408,340
Insurance		
10 Liberty Street/Williams Street	Retail	3,000
Park Row @ Ann Street	Retail	32,000
Insurance Submarket Total		35,000
Financial East		
48 Wall Street	Office	324,000
23 Wall Street/15 Broad Street	Office	1,300,000
Whitehall Ferry at Whitehall Street	Retail	10,000
Financial East Submarket Total		1,634,000
Financial West		
Pier A	Retail	7,000
Summary		
	Office	Retail
Total 2009 Additions	2,978,940	105,400
Pre-September 11	107,809,924	7,450,000
Total 2009 Space	110,788,864	7,555,400

Manhattan Office Market

As indicated in the Current Conditions Scenario discussion above, a number of major office and retail developments are currently underway or planned for completion by 2009. They include: the Pennsylvania Station Redevelopment, an office tower at 375 Ninth Avenue, Studio City, Time Warner Center, New York Times headquarters, and the Bloomberg building on the former Alexander's department store site. (see "Future Without the Proposed Action 2009—Current Conditions Scenario" for more detail.)

EMPLOYMENT—2009 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

Prior to September 11, 2001, there were approximately 47,885 employees working on the Project Site.[1] Roughly 42,830 worked in buildings on the WTC Site, and another 5,050 worked at 130 Liberty Street. Because there were no plans to expand or significantly alter the commercial square footage at the WTC Site, and the vacancy rate was low (3.4 percent for WTC Site buildings) the number of employees working at the site in 2009 likely would have been comparable to the number of employees working at the site prior to September 11.

Lower Manhattan Study Area

Based on the commercial development list presented above, and assuming a standard employment ratio of four employees per 1,000 square feet of office space and three employees per 1,000 square feet of retail space, the Lower Manhattan study area would have gained approximately 12,232 employees by 2009 had the events of September 11 never occurred. Estimated employment gains by submarket are presented below in Table 9-48, along with a summary projected 2009 employment.

Table 9-48
Projected Employment in Lower Manhattan Study Area: 2009 Pre-September 11 Scenario

	Office[1]	Retail[1]	Total
Employment Gains by Submarket			
World Financial	5,420	160	5,580
Insurance	0	105	105
Financial East	6,496	30	6,526
Financial West	0	21	21
City Hall	0	0	0
Projected Employment 2009			
Total 2009 Additions	11,916	316	12,232
2000 Employment[2]	N/A	N/A	426,008
Total 2009 Employees	N/A	N/A	438,240

Notes: [1] For 2009 employment additions, a ratio of four employees per 1,000 square feet was used to estimate employment for office development; a ratio of three employees per 1,000 square feet was used to estimate employment for retail development. These estimates were added to the actual 2000 employment in the primary study area to obtain 2009 employment for the primary study area.
[2] Derived from NYMTC 2000 employment estimate.

[1] New York Metropolitan Transportation Council. *Demographic and Socioeconomic Forecasting Post-September 11th Impacts.* Technical Memorandum No. 3.1 Inventory of Affected Businesses: Their Characteristics and Aftermath. Table 2.

HOTELS AND TOURISM—2009 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

Prior to September 11, it is estimated that approximately 2 million people visited the WTC Observation Deck each year, 660,000 dined at the Windows on the World restaurant, 1 million visited WTC offices, and another 48,000 using the Oval Room and the World Trade Institute each year. If the Pre-September 11 New York_City annual visitation growth rate of 3 percent were applied to the tourist-oriented visits to the WTC complex (i.e., the WTC Observation Deck and Windows on the World), visitation to those components would have reached approximately 3.4 million by 2009.

Lower Manhattan Study Area

According to the Downtown Alliance, Lower Manhattan (south of Chambers Street) was attracting approximately 7.2 million visitors per year prior to September 11, or between 20 and 22 percent of all visitors to New York City.[1] Assuming that Lower Manhattan continued to capture 20–22 percent of the New York City visitation, between 9.5 and 10.4 million visits would have been made to Lower Manhattan in 2009.

New York City

As discussed in the future without the Proposed Action for the Current Conditions Scenario, the New York City tourism market grew dramatically through the 1990s—at an average annual rate of approximately 3 percent from 1992 to 2000. Assuming, under pre-September 11 conditions, that the number of visitors would have continued to grow at about 3 percent per year, with approximately 47.4 million people visiting New York City in 2009.

9.4.3 PROBABLE IMPACTS OF THE PROPOSED ACTION 2009—PRE-SEPTEMBER 11 SCENARIO

The analysis of the Proposed Action's impacts on socioeconomic conditions in the study areas begins with, and builds upon, the 2009 future without the Proposed Action conditions described in the preceding section. The following section adds to these conditions the mix of uses planned under the Proposed Action by 2009, describes the changes to the future baseline, and discusses the potential adverse and beneficial impacts associated with those changes. Under the Pre-September 11 Scenario, the assessment of potential impacts compares the future with the Proposed Action to the future without the Proposed Action, absent the events of September 11.

As described in Chapter 2, "Methodology," section 2.6.3, it is assumed that under the Proposed Action the Memorial, museum, and cultural facilities would be complete in the southwest quadrant of the WTC Site in 2009; Freedom Tower and the performing arts facility would be complete in the northwest quadrant; and retail uses would be complete on the northeast and southeast quadrants (see Table 2-1). On the additional development areas south of Liberty Street, the below-grade bus parking and service facilities would be complete as well as the open space and retail base of the tower. The concourse levels across the entire site would have been developed as well as the two surface streets, Fulton and Greenwich Streets, and the open spaces.

---

[1] Alliance for Downtown New York, Inc. *Downtown New York: A Community Comes of Age*. January 2001.

POPULATION AND HOUSING—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

The development program for the Project Site does not include a housing component. Therefore, there would be no housing or residential population directly generated by the Proposed Action in 2009.

Primary Study Area

Given that the development program for the Project Site does not include housing, there would be no direct change in the residential population and number of housing units in the primary study area due to development of the Proposed Action. Therefore, as described in section 9.4.2 above, under this scenario there would be approximately 12,152 housing units in the primary study area in 2009, containing an estimated 20,330 residents.

Secondary Study Area

The Proposed Action does not include a housing component as part of its development program, and would not directly affect the population and housing statistics for the secondary study area as presented in section 9.4.2 above.

COMMERCIAL OFFICE AND RETAIL MARKET—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

By 2009, the Proposed Action would result in the development of approximately 2.6 million square feet of Class A commercial office space on the Project Site, all within Freedom Tower. Given the prominence of this new building within the Manhattan office market, its exceptional accessibility, and its state-of-the-art systems, the office space is expected to be leased at the high end of the range of Class A market rents for Lower Manhattan. In contrast, as described in section 9.3.1 above, the projected average contract rent for WTC office space in 2001 was almost $17 per square foot less than the average market rent for Lower Manhattan Class A space overall ($52.37 per square foot).

The Proposed Action also includes development of up to 1.0 million square feet of retail space by 2009, located within the four quadrants of the WTC Site, the Southern Site, and in the concourse levels (see Table 2-1). This proposed retail space would represent a substantial increase in the retail presence on the Project Site, compared with conditions prior to September 11. The former Mall at the World Trade Center, which was located immediately beneath the World Trade Center Plaza, contained approximately 350,000–400,000 square feet of retail space that included a wide range of shops and restaurants (described in detail in section 9.4.1, above).

In addition, unlike the retail space formerly located at the Project Site, a substantial portion of the new retail space would be located above ground, within the first three floors of the commercial towers. Under the Proposed Action by 2009, all of the retail base portions of the five towers planned for the Project Site would be built and operational, with over 350,000 square feet of street-level retail space. The remaining retail space would be below ground, in the concourse level.

While specific programming for the proposed retail space has not yet been determined, it is currently anticipated that approximately half of the new retail space, or up to 500,000 square feet, would be dedicated to neighborhood retail uses. Neighborhood retail serves the immediate residential and worker populations of an area, and includes such uses as delicatessens, hair salons, and drugstores. The remaining space (up to 500,000 square feet) would be for destination retail uses that sell such shopping goods as clothing and furniture, and would draw from a larger consumer base compared with neighborhood retail uses. The up to 1 million square feet of retail space under the Proposed Action would include an undetermined amount of restaurant space. The only programmed restaurant use at this time is an approximately 60,000-square-foot space at Freedom Tower, which would include gardens, a café (600 seats), and restaurant (400 seats).

Lower Manhattan Study Area

The 2.6 million square feet of commercial office space built on the Project Site by 2009 would represent approximately 2.6 percent of the 99.8 million square feet of total office space in Lower Manhattan, and approximately 5.1 percent of the 50.7 million square feet of Class A office space in Lower Manhattan in 2009.[1]

The Project Site in 2009 would contain a smaller percentage of the total office inventory for Lower Manhattan compared with pre-September 11 conditions. Prior to September 11, the over 11.0 million square feet of commercial office space on the Project Site represented approximately 10.2 percent of the 107.8 million square feet of total office space in Lower Manhattan, and approximately 18.7 percent of the 58.8 million square feet of Class A office space in Lower Manhattan in second quarter 2001.

In terms of retail, the approximately 1.0 million square feet of retail space built on the Project Site by 2009 would represent approximately 11.7 percent of the estimated 8.6 million square feet of retail space in Lower Manhattan in 2009. Prior to September 11, the retail space at the Project Site represented approximately 4.7 percent of the total retail space in Lower Manhattan.

Manhattan

The 2.6 million square feet of commercial office space built on the Project Site by 2009 would represent less than 1 percent of the over 400 million square feet of total office space in Manhattan, and slightly over 1 percent of the estimated 230 million square feet of Class A office space in Manhattan in 2009. In terms of retail space, the approximately 1 million square feet of retail space built on the Project Site would represent less than one percent of the total retail space in Manhattan in 2009.

EMPLOYMENT—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

Assuming standard employment ratios and vacancy rates described in the notes for Table 9-49, the operations of the development planned under the Proposed Action could generate up to 12,921 workers at the Project Site in 2009 (see Table 9-49). Approximately 9,568 of those employees would be office workers in the Freedom Tower.

---

[1] For purposes of analysis under the Pre-September 11 Scenario, the total office and Class A office inventories subtract from the 2009 No Build total the 11.0 million square feet of Class A office space that was located on the Project Site prior to September 11, 2001.

Table 9-49
Projected Typical Permanent Employment from Operation of the Proposed Action, 2009

Category	Gross Square Feet	Employment (Full-Time Equivalent)
Office	2,600,000	9,568
Retail	600,000–1,000,000	1,712–2,853
Institutional	380,000	380
Performing Arts Center	2,200 seats	100
Parking	1,200–1,400 spaces	20
Total		**11,780–12,921**

Notes: Office, one employee per 250 gross square feet; retail (varies), on average for the anticipated type of retail, one employee per 333 gross square feet; institutional, one employee per 1,000 gross square feet; performing arts center, estimated for purposes of this analysis; parking, estimated for purposes of this analysis. Employment estimates assume full occupancy.

The 12,921 workers generated by the Proposed Action in 2009 would be less than one-third of the 47,885 employees estimated to work at the Project Site prior to September 11, 2001.

Lower Manhattan Study Area

With the additional 12,921 employees estimated to be working at the Project Site (described above), there would be a projected 403,276 workers in Lower Manhattan by 2009.[1] The workers at the Project Site would represent approximately 3.2 percent of the total employment in Lower Manhattan by 2009. This is much less than the pre-September 11 condition, in which employment at the Project Site represented approximately 11.2 percent of total employment in Lower Manhattan.

The additional employment generated by the Proposed Action, combined with the projected 12,232 employees generated by other future projects, would result in an estimated 25,153 new employees in Lower Manhattan by 2009. This employment estimate indicates that—similar to NYMTC population projections—NYMTC employment projections (developed prior to September 11, 2001) would be achieved more quickly than anticipated in Lower Manhattan. In 2000, NYMTC projected that approximately 17,500 new jobs would be generated in Lower Manhattan between 2004 and 2009 (based on an annual average of 2,922 employees from 2000 to 2010).

HOTELS AND TOURISM—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

The Proposed Action would not include the development of hotel space by 2009. However, the various components of the project expected to draw visitors to the Project Site—including the Memorial, museum, open spaces, and retail stores—would all be complete by 2009. Based on estimates from the Port Authority, the Memorial and museum components alone are expected to generate a peak of 7 to 9 million tourist visits during the 2009 analysis year (the first year of

[1] With the Proposed Action under the Pre-September 11 Scenario, the estimated employment for Lower Manhattan is calculated by adding the employment generated by the Proposed Action to the 2009 No Build employment, subtracting all employees located on the Project Site prior to September 11.

operations). To put this amount in perspective, 9 million visits to the Memorial and museum would be nearly double the projected visitation to the former WTC in 2009 (4.8 million), and slightly less than the total visitors to all of Lower Manhattan in 2009 (9.5 and 10.4 million), had the events of September 11 never occurred.

Lower Manhattan Study Area

As described in detail under the Current Conditions Scenario, redevelopment of the Project Site under the Proposed Action would add significantly to the visitor base for all of Lower Manhattan in 2009. The new tourism generated by the redeveloped Project Site would generate new visits to existing places of interest in Lower Manhattan, and would increase the percentage of both domestic visitors (i.e., those outside the New York City region) and international visitors to Lower Manhattan. The expected shift in tourist demographics would result in increased spending per visitor, on average, and longer lengths of stay. Based on spending levels for tourists derived by NYC & Company in 2000 and supplemented with data on domestic and international visitation patterns by NYC & Company from a 1998 Audience Research survey, it is estimated that the 9 million visitors of the Proposed Action's Memorial and museum components alone would generate additional spending on food entertainment/leisure, and shopping in Lower Manhattan ranging from $240 million to $480 million in 2009.[1] The total incremental spending in Lower Manhattan generated by visitation to the Project Site would be greater than this amount, given that there would be additional spending in other categories (e.g., lodging , public transportation), and there would be additional visitors drawn by other components, such as the retail space and cultural facilities.

Manhattan

The Project Site under the Proposed Action would be a regional, national, and international location of interest that would draw new visits to Manhattan. The new visitors generated by the Proposed Action would spend time and money at the Project Site, as well as at other locations in Manhattan. In 1995, visitors to the New York City metropolitan area spent an average of 3.9 nights, and 2.9 nights at a hotel, during their trip.[2] Given such visitation patterns, even if the Project Site is the primary destination of a visitor, it is reasonable to assume that they would visit numerous places of interest within Manhattan over the course of their stay.

DIRECT RESIDENTIAL DISPLACEMENT—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Given that the Project Site would not contain any housing in the future without the Proposed Action in 2009, redevelopment of the Project Site under the Proposed Action would not directly displace any residential population.

---

[1] Spending based on NYC & Company 2000 survey, adjusted to 2003 dollars. The estimated range of spending is bracketed by the assumption that the WTC site visit would be part of either a half-day or full-day trip to Lower Manhattan. The amount represents spending estimated to occur both at the Project Site and in other areas of Lower Manhattan.

[2] U.S. Department of Transportation, Bureau of Transportation Statistics, *1995 American Travel Survey*, October 23, 1997.

DIRECT BUSINESS DISPLACEMENT—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

The Project Site would not contain any commercial businesses in the future without the Proposed Action in 2009; therefore, redevelopment of the Project Site under the Proposed Action would not directly displace any businesses.

INDIRECT (SECONDARY) RESIDENTIAL DISPLACEMENT—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Similar to the 2009 analysis for the Current Conditions Scenario (see section 9.3.3, above), the Proposed Action would not result in significant indirect residential displacement under the Pre-September 11 Scenario. The amount of office space on the Project Site would be substantially less than what existed prior to September 11; on the other hand, there would be more retail and other amenities that would generate a more vibrant presence on the Project Site, and would better support the needs of the growing residential population in Lower Manhattan. The various amenities planned as part of the Proposed Action reflect an existing and projected need from residents, rather than an effort to alter or accelerate trends in neighborhood character. All available evidence—the high rent levels, the lowering vacancy rates, and the current and planned levels of rehabilitation and construction activity—indicates that the trend toward higher shelter costs has been increasing, and would continue irrespective of the Proposed Action.

INDIRECT (SECONDARY) BUSINESS DISPLACEMENT—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Office Market

Similar to the 2009 analysis for the Current Conditions Scenario (see section 9.3.3, above), the Proposed Action would not result in significant indirect displacement of commercial (office) businesses under the Pre-September 11 Scenario. The office uses in Freedom Tower would not be a new economic activity to the area, nor would it be of the type or amount that would alter existing economic patterns. The Project Site is located within the third-largest CBD in the nation, and would provide an office presence similar in use to that of the Twin Towers, as well as existing buildings in the surrounding area. In addition, the Proposed Action would be consistent with, and would reflect the implementation of, New York City and State policy following September 11, of strengthening Lower Manhattan as an office center. The new office space would accommodate the employment growth, which is critical for sustaining Manhattan's role as a leading center of commerce and business. The proposed redevelopment of the Project Site, coupled with existing financial incentives and other physical improvements planned for Lower Manhattan, delivers a clear signal to commercial businesses that the city and state are committed to attracting and supporting new investments in Lower Manhattan.

The additional new office space under the Proposed Action is not expected to result in increases in rents for comparable office space in the surrounding area because there would be a sufficient supply of high-end Class A office space to absorb future increases in demand. The new office space would not adversely affect the rental rates for office space containing lesser overall amenities (including some existing Class A, Class B, and Class C office space) because the prices for such space are dictated in large part by the level of amenities provided, and would therefore be insulated from the increase in supply of high-end Class A space at the Project Site. The new office space would not affect the existing trend of converting Class B and Class C office space to residential uses; such a trend would continue irrespective of the Proposed Action, and would be dictated in large part by the demand for housing in Lower Manhattan relative to the demand for Class B and Class C office space.

Retail Market

Similar to the 2009 analysis for the Current Conditions Scenario (see section 9.3.3, above), the Proposed Action would not result in indirect displacement of retail businesses under the Pre-September 11 Scenario. While there would be a greater amount of retail on the Project Site (up to 1.0 million square feet), compared with conditions prior to September 11 (350,000–400,000 square feet in the former WTC Mall, depending on occupancy), a majority of the new retail would be above ground, in the first three floors of the office towers. This new street-level retail presence on the Project Site would better facilitate trips from the new retail to existing retail in the area surrounding the Project Site, and in Lower Manhattan more generally. In addition, the existing retail stores in Lower Manhattan would benefit from the increased visitation expected at the Memorial, museum, and other places of interest on the Project Site, compared with visitation to the former WTC complex.

EFFECTS ON A SPECIFIC INDUSTRY—2009 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

The Proposed Action would not significantly affect business conditions in any specific industry or any category of business within or outside the study area, nor would it indirectly substantially reduce employment or impair the economic viability in a specific industry or category of business. To the contrary, as described above, the proposed uses for the Project Site would support new investments in Lower Manhattan.

9.4.4 FUTURE WITHOUT THE PROPOSED ACTION 2015— PRE-SEPTEMBER 11 SCENARIO

POPULATION AND HOUSING—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

WTC Site

There were no housing units on the WTC Site prior to September 11, 2001. The population was negligible and was not expected to grow (see section 9.3.1, above, for more details on the WTC Site population).

Primary Study Area

The project list for the future without the Proposed Action 2009–2015 under the pre-September 11 conditions is the same as the project list for 2009–2015 under the Current Conditions Scenario, which was presented earlier in this chapter. Table 9-50, below, summarizes the effect that those projects would have had on housing and population in the primary study area under pre-September 11 conditions. As shown in the table, the primary study area would have included a total of approximately 13,165 housing units by 2015 and had an estimated population of 22,276.

Table 9-50
Residential Development, Primary Study Area:
2015 Future Without the Proposed Action Under Pre-September 11 Conditions

Project Address	Housing Units	Estimated Population[1]
2015 Additions to Primary Study Area	1,013	1,946
2009 Under Pre-September 11 Conditions	12,152	20,330
Total 2015 Primary Study Area (Pre-Sept. 11 Conditions)	13,165	22,276

Note: [1] Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.

Secondary Study Area

The project list for the future without the Proposed Action 2009–2015 under the pre-September 11 conditions is the same as the project list for 2009–2015 under the Current Conditions Scenario, which was presented earlier in this chapter. Table 9-51 summarizes the effect that those projects would have had on housing and population in the secondary study area under pre-September 11 conditions. As shown in the table, the secondary study area would have gained 1,985 housing units and approximately 3,558 residents between 2009 and 2015, bringing its total number of housing units to 23,688 by 2015, and its population to 54,912.

Table 9-51
Residential Development, Secondary Study Area:
2015 Future Without the Proposed Action Under Pre-September 11 Conditions

	Housing Units	Estimated Population[1]
2015 Additions to Secondary Study Area	1,985	3,558
2009 Under Pre-September 11 Conditions	21,703	51,354
Total 2009 Secondary Study Area (Pre-September 11 Conditions)	23,688	54,912

Note: [1] Population estimate was generated by multiplying the number of housing units by the 2000 average household size for each subarea.

COMMERCIAL OFFICE AND RETAIL MARKET—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

Prior to September 11, 2001, the Project Site included approximately 11 million square feet of commercial space. Section 3.5.1 in this GEIS presents characteristics of the office and retail space that existed on the WTC Site and at 130 Liberty Street before September 11. Because there were no plans to expand or significantly alter the commercial square footage on the Project Site, the site would have looked much the same in 2015 as it did in 2001.

Lower Manhattan Study Area

The 2009–2015 list of commercial development in the future without the Proposed Action for the Pre-September 11 Scenario is the same as the list for the Current Conditions Scenario with one exception: the 1.4 million square feet office development at 130 Liberty that was included in the Current Conditions Scenario is not included in the Pre-September 11 Scenario. Under this

Pre-September 11 Scenario, the study area would have gained approximately 5,021,620 square feet of office space and 226,255 square feet of retail space between 2009 and 2015, for a total of 5,247,875 commercial square feet. By 2015, the area would have included a total of 115,810,484 square feet of office space and 7,781,655 square feet of retail space.

EMPLOYMENT—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

Prior to September 11, 2001, there were approximately 47,880 employees working on the Project Site.[1] Roughly 42,830 worked in buildings on the WTC Site, and another 5,050 worked at 130 Liberty Street. Because there were no plans to expand or significantly alter the commercial square footage at the WTC Site, and the vacancy rate was low (3.4 percent for WTC Site buildings) the number of employees working at the site in 2015 likely would have been comparable to the number of employees working at the site prior to September 11.

Lower Manhattan Study Area

Between 2009 and 2015, the primary study area would have gained approximately 20,086 office employees and 679 retail employees, for a total of 20,765 new employees. Total employment in the area would have reached approximately 427,975 by 2015.

HOTELS AND TOURISM—2015 FUTURE WITHOUT THE PROPOSED ACTION, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

Prior to September 11, it is estimated that approximately 2 million people visited the WTC Observation Deck, 660,000 dined at Windows on the World restaurant, 1 million visited WTC offices, and another 48,000 used the Oval Room and the World Trade Institute each year. If the pre-September 11 New York City visitation growth rate of 3 percent were applied to the tourist-oriented components of the WTC from 2000 to 2015, tourist visitation to the site would grow from approximately 2.7 million in 2001 to 4.0 million in 2015.

Lower Manhattan Study Area

According to the Downtown Alliance, Downtown New York (south of Chambers Street) was attracting approximately 7.2 million visitors per year prior to September 11, or between 20 and 22 percent of all visitors to New York City.[2] Assuming that Downtown continued to capture 20–22 percent of the New York City visitors, visitation to Lower Manhattan in 2015 would have been between 11.4 and 12.5 million.

New York City

As discussed earlier in this section, the number of visitors to New York City grew at an average annual rate of approximately 3 percent between 1992 and 2000, from 28.8 million people in

---

[1] New York Metropolitan Transportation Council, *Demographic and Socioeconomic Forecasting Post-September 11th Impact,* Technical Memorandum No. 3.1 Inventory of Affected Businesses: Their Characteristics and Aftermath, Table 2.

[2] Alliance for Downtown New York, Inc., *Downtown New York: A Community Comes of Age*, January 2001.

1992 to 36.2 million people in 2000. Assuming, under pre-September 11 conditions, that the number of visitors would have continued to grow at about 3 percent per year, approximately 56.8 million people would have visited New York City in 2015.

9.4.5 PROBABLE IMPACTS OF THE PROPOSED ACTION 2015—PRE-SEPTEMBER 11 SCENARIO

The following section adds to the 2015 conditions the mix of uses planned under the Proposed Action by 2015, describes the changes to the future baseline, and discusses the potential adverse and beneficial impacts associated with those changes.

As described in Chapter 2, "Methodology," section 2.6.3, by 2015 it is assumed that the full program for the WTC Site and the tower south of Liberty Street would be developed, with the completion of three towers on the east side of the site and the tower on the Southern Site (see Table 2-2).

POPULATION AND HOUSING—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

The development program for the Proposed Action does not include a housing component. Therefore, there would be no housing or residential population directly generated by the Proposed Action in 2015.

Primary Study Area

Given that the development program for the Project Site does not include housing, there would be no direct change in the residential population and number of housing units in the primary study area due to development of the Project Site. Therefore, as described in section 9.4.4 above, under this scenario there would be an estimated 23,688 housing units in the primary study area in 2015, containing an estimated 55,761 residents.

Secondary Study Area

The Proposed Action does not include housing as part of its development program, and would not directly affect the population and housing statistics for the secondary study area as presented in section 9.4.4, above.

COMMERCIAL OFFICE AND RETAIL MARKET—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

By 2015, the Proposed Action would result in the development of approximately 7.4 million additional square feet of Class A commercial office space at the Project Site, for a total of 10.0 million square feet under the Proposed Action. In addition to Freedom Tower (built by 2009), an additional 2.2 million square feet of new office space would be operational in a tower on the northeast quadrant of the WTC Site; two towers containing 1.9 million and 1.7 million square feet of office space would be built on the southeast quadrant; and a tower on the Southern Site would be developed with 1.6 million square feet of office space. Given the prominence of these new buildings within the Manhattan office market, their exceptional accessibility, and state-of-the-art systems, the new office space is expected to be leased at the high end of the range of Class A market rents for Lower Manhattan. This is in contrast to the contract rental rate for office space in the former WTC towers, where the average contract rent for office space in 2001 was almost $17 per square foot less than the average market rent for Lower Manhattan Class A space overall ($52.37 per square foot).

There would be no additional retail space built on the Project Site between 2009 and 2015; therefore, as in the 2009 build year, in 2015 the Project Site would include up to 1.0 million square feet of retail space. As described previously, approximately half of the planned retail space would be for neighborhood retail uses, and the remaining half would be destination retail. The only restaurant use currently planned as part of the Proposed Action is an approximately 60,000-square-foot space at Freedom Tower, which would include gardens, a café (600 seats), and restaurant (400 seats), which would be built and operational by 2009.

Lower Manhattan Study Area

The 10.0 million square feet of commercial office space built on the Project Site by 2015 would represent approximately 8.7 percent of the estimated 114.8 million square feet of total office space in Lower Manhattan, and approximately 17.9 percent of the estimated 55.8 million square feet of Class A office space in Lower Manhattan in 2015. These percentages are similar to those for the WTC Site prior to September 11, when the over 9.6 million square feet of commercial office space on the WTC Site represented approximately 8.9 percent of the 107.8 million square feet of total office space in Lower Manhattan, and approximately 16.4 percent of the 58.8 million square feet of Class A office space in Lower Manhattan in second quarter 2001.

Combined with the approximately 5.0 million square feet of office space expected to be developed between 2010 and 2015 in the future without the Proposed Action, the amount of new office space anticipated in Lower Manhattan from 2010 to 2015 (approximately 12.4 million square feet in total, or 11.4 million square feet of open space, assuming a standard 8 percent vacancy rate) would be greater than the office absorption expected between 2010 and 2015, based on the 1998–2002 Lower Manhattan average of approximately 1.1 million square feet per year.

In terms of retail, the approximately 1.0 million square feet of retail space located at the Project Site would represent approximately 11.9 percent of the estimated 8.4 million square feet of retail space in Lower Manhattan in 2015. Prior to September 11, the retail space at the Project Site represented approximately 4.7 percent of the total retail space in Lower Manhattan.

EMPLOYMENT—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

Assuming standard employment ratios described in the note for Table 9-52, the operations of the development planned under the Proposed Action could generate up to 40,553 workers at the Project Site by 2015 (see Table 9-52). A vast majority of the employees (approximately 36,800) would be office workers.

The 40,553 workers generated by the Proposed Action in 2015 would be less than the 47,885 employees estimated to work at the Project Site prior to September 11, 2001.

Table 9-52
Projected Typical Permanent Employment from the Operation of the Proposed Action, 2015

Category	Gross Square Feet	Employment (Full-Time Equivalent)
Office	10,000,000	36,800
Retail	600,000–1,000,000	1,712–2,853
Institutional	380,000	380
Performing Arts Center	2,200 seats	100
Hotel	up to 800 rooms	300
Hotel Function Space	150,000	100
Parking	1,200–1,400 spaces	20
Total		39,412–40,553

Notes: Office, one employee per 250 gross square feet, and 8 percent vacancy; retail (varies), on average for the anticipated type of retail, one employee per 333 gross square feet, and 5 percent vacancy; institutional, one employee per 1,000 gross square feet; performing arts center, estimated for purposes of this analysis; hotel, one employee per 2.67 rooms, assuming 800 rooms; hotel function space, one employee per 1,500 square feet; parking, estimated for purposes of this analysis.

Lower Manhattan Study Area

With the additional 40,553 employees estimated to be working at the Project Site (described above), there would be a projected 468,528 workers in Lower Manhattan by 2015. The workers at the Project Site would represent approximately 8.7 percent of the total employment in Lower Manhattan by 2015. This is slightly less than the percentage prior to September 11, 2001, when employment at the Project Site represented approximately 11.2 percent of total employment in Lower Manhattan.

The employment that would be generated by the Proposed Action and other projects indicates that—similar to NYMTC population projections—NYMTC employment projections for Lower Manhattan would be achieved more quickly than anticipated. In 2000, NYMTC projected that 35,064 new employees would be generated in Lower Manhattan during the 12-year period from 2004 to 2015 (based on an annual average of 2,922 employees from 2000 to 2010).

HOTELS AND TOURISM—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Project Site

By 2015, the Proposed Action would result in the development of a major new hotel located on the northeast quadrant of the Project Site. The hotel would contain approximately 600,000 square feet of hotel room space (or about 800 rooms), and would also include approximately 150,000 square feet of function space. The hotel planned as part of the Proposed Action would contain approximately 20 fewer rooms than the New York Marriott World Trade Center Hotel that existed on the site prior to September 11, but would have large conference facilities.

Outside of the hotel space, the various components of the Proposed Action expected to draw visitors to the Project Site—including the Memorial, museum, open spaces, and retail stores—would all have been complete by 2009, and would still be operational in 2015. It is anticipated that visitation to the Memorial and museum components would have dropped substantially from a projected peak of 9 million tourist visits in 2009 to an estimated 5.5 million visits in 2015. A decrease in visitation would be expected given that the Memorial and museum would no longer be "new" places of interest, especially within the pool of visitors from the New York City region that have previously visited the Project Site. In addition to the visitors to the Memorial and museum, the Project Site as a whole would continue to maintain large numbers of visitors, at a rate well above what would be expected in the future without the Proposed Action under this scenario (i.e., to the former WTC complex). As discussed in section 9.4.4 above, if the pre-September 11 New York City visitation growth rate of 3 percent were applied to the WTC from 2000 to 2015, visitation to the site would have reached approximately 4.0 million by 2015. With the Proposed Action, the visitation to the Memorial and museum would generate greater visitation.

Lower Manhattan Study Area

The 800 rooms provided by the hotel at the Project Site would represent approximately 20.1 percent of the approximately 3,985 hotel rooms south of Canal Street in 2015.

The estimated 5.5 million annual visits to the Memorial Garden and Museum in 2015, while less than the visitation in 2009, would be almost half of the total visitation expected to Lower Manhattan in the future without the Proposed Action (from 11.4 to 12.5 million) in 2015 under this scenario. Based on spending levels for tourists derived by NYC & Company in 2000 and supplemented with data on domestic and international visitation patterns by NYC & Company from a 1998 Audience Research survey, it is estimated that the 9 million visitors of the Proposed Action's Memorial and museum components alone would generate additional spending on food, entertainment/leisure, and shopping in Lower Manhattan ranging from $240 million to $480 million in 2009.[1] The total incremental spending in Lower Manhattan generated by visitation to the Project Site would be greater than this amount, given that there would be additional spending in other categories (e.g., lodging , public transportation), and there would be additional visitors drawn by other components, such as the retail space and cultural facilities.

DIRECT RESIDENTIAL DISPLACEMENT—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Given that the Project Site would not contain any housing in the future without the Proposed Action in 2015, redevelopment of the Project Site under the Proposed Action would not directly displace any residential population.

DIRECT BUSINESS DISPLACEMENT—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

The Project Site would not contain any commercial businesses in the future without the Proposed Action in 2015; therefore, redevelopment of the Project Site under the Proposed Action would not directly displace any businesses.

---

[1] Spending based on NYC & Company 2000 survey, adjusted to 2003 dollars. The estimated range of spending is bracketed by the assumption that the WTC site visit would be part of either a half-day or full-day trip to Lower Manhattan. The amount represents spending estimated to occur both at the Project Site and in other areas of Lower Manhattan.

INDIRECT (SECONDARY) RESIDENTIAL DISPLACEMENT—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

The new hotel and additional 7.4 million square feet of office space developed on the site by 2015 would not affect the findings of the analysis described for the 2009 build year. Overall, the Proposed Action would not result in significant indirect displacement within the local residential real estate market. To the contrary, the amenities associated with the Proposed Action would make the area a lively environment all day, every day, and would serve as a key component of the broader initiative to make Lower Manhattan a more attractive place to live, work, and visit. The proposed development would be compatible with the surrounding area, and would reflect, rather than initiate, the growing residential presence and the demands for neighborhood amenities generated by existing residents. All available evidence—the high rent levels, the lowering vacancy rates, and the current and planned levels of rehabilitation and construction activity—indicates that the trend toward higher shelter costs has been increasing, and would continue irrespective of the Proposed Action. The various amenities planned as part of the Proposed Action reflect an existing and projected need from the growing residential population in Lower Manhattan, rather than an effort to alter or accelerate trends in neighborhood character.

INDIRECT (SECONDARY) BUSINESS DISPLACEMENT—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

Office Market

The 7.4 million square feet of additional Class A office space developed under the Proposed Action between 2009 and 2015 would bring the total amount of office space on the Project Site to 10.0 million square feet, approximately 1.9 million square feet less office space than existed on the Project Site prior to September 11, 2001. Therefore, in comparing the Proposed Action with the office development prior to September 11, the slightly reduced total square footage would not significantly affect long term rental rates for office space in Lower Manhattan, nor would it adversely alter existing economic patterns. In addition, the new office use would not be a new economic activity to the area; it would provide an office presence similar in scale and types of uses, compared with pre-September 11 conditions on the Project Site, and similar to existing buildings in the surrounding area.

The additional new office space under the Proposed Action is not expected to result in increases in rents for comparable office space in the surrounding area because there would be a sufficient supply of high-end Class A office space to absorb future increases in demand. The new office space would not adversely affect the rental rates for office space containing lesser overall amenities (including some existing Class A, Class B and Class C office space) because the prices for such space are dictated in large part by the level of amenities provided, and would therefore be insulated from the increase in supply of high-end Class A space at the Project Site. The new office space would not affect the existing trend of converting Class B and Class C office space to residential uses; such a trend would continue irrespective of the Proposed Action, and would be dictated in large part by the demand for housing in Lower Manhattan relative to the demand for Class B and Class C office space.

Retail Market

There would be no additional retail space built on the Project Site between 2009 and 2015; therefore, in 2015 the Project Site would include up to 1.0 million square feet of retail space. Given that there would be no additional retail development by 2015, the 2009 analysis of potential indirect retail displacement also applies for the 2015 build year. The major difference between the two analysis years would be the likely composition of the consumer base for the retail space—and the corresponding consumer spillover to existing retail businesses. By 2015, the number of visitors to the Memorial and museum at the Project Site would be reduced, compared with 2009 (during their first year of operation). Therefore, while the retail space at the Project Site and Lower Manhattan as a whole would continue to benefit from a high number of project-generated visitors to the Memorial and museum, the proportion of business generated by those visitors would be less. However, the Project Site would employ up to 27,632 additional workers in 2015, compared with 2009, thereby increasing the proportion of business generated by employees in Lower Manhattan.

EFFECTS ON A SPECIFIC INDUSTRY—2015 BUILD, BASED ON PRE-SEPTEMBER 11 SCENARIO

The Proposed Action would not significantly affect business conditions in any specific industry or any category of business within or outside the study area, nor would it indirectly substantially reduce employment or impair the economic viability in a specific industry or category of business. By 2015, the Proposed Action would introduce a new hotel to the Project Site, representing approximately 21.6 percent of the total hotel room count for Lower Manhattan. The new hotel would be smaller than the New York Marriott World Trade Center Hotel that existed on the site prior to September 11 (that hotel contained 817 rooms and had larger function space). Therefore, while the new hotel space would compete with existing hotels in Lower Manhattan, it would not be as large a competitor relative to the former hotel. In addition, the substantial project-generated visitation to Lower Manhattan is expected to have a net benefit on existing hotels, and would therefore not impair their economic viability.

9.4.6 ECONOMIC AND FISCAL BENEFITS OF PROPOSED ACTION: PRE-SEPTEMBER 11 SCENARIO

The economic and fiscal benefits from the Proposed Action would be the same under either scenario. They were presented in Section 9.3.6 for the Current Conditions Scenario. Under the Pre-September 11 Scenario, the Proposed Action would restore the economic vitality of the site and the corresponding economic and fiscal benefits to approximately the same level as existed before September 11, 2001. The economic and fiscal benefits are briefly summarized below (for a detailed description of the benefits as well as their derivation, see section 9.3.6). All dollar amounts in this section are in 2003 dollars.

CONSTRUCTION PERIOD ECONOMIC BENEFITS 2009

- Construction of the 2009 building program would create about 24,820 person-years of construction employment and a total of about 38,240 person-years of employment in New York City and a total of approximately 47,120 person-years of employment in New York State.
- Construction activity would have a total effect on the local economy, measured as economic output or demand for local industries, equal to about $7.95 billion in New York State, of which $6.10 billion would occur in New York City.
- Construction of the 2009 building program would create tax revenues, exclusive of property-related payment, equal to approximately $318.52 million.

ANNUAL OPERATING BENEFITS 2009

- The typical on-site employment of the 2009 building program is estimated at approximately 11,780 to 12,920 full-time equivalent jobs, and the total employment from the operation of the building program is estimated at 22,365 to 23,760 full-time equivalent jobs in New York City and more than 26, 968 to 28,524 jobs in New York State.
- The total effect from the operation of the 2009 building program is estimated at $8.53 to $8.72 billion annually in New York State, of which $7.39 billion annually would occur in New York City.
- In addition to PILOTs, the 2009 building program is estimated to generate non-property tax revenues estimated at approximately $332 to $356 million annually.

CONSTRUCTION PERIOD ECONOMIC BENEFITS 2015

- Construction of the completed building program, assumed to occur by 2015, would create about 50,830 person-years of construction employment and a total of about 78,220 person-years of employment in New York City and a total of approximately 96,530 person-years of employment in New York State.
- Construction activity would have a total effect on the local economy, measured as economic output or demand for local industries, equal to about $15.75 billion in New York State, of which $12.06 billion would occur in New York City.
- Construction of the completed building program would create tax revenues, exclusive of property-related payment, equal to approximately $640.09 million.

ANNUAL OPERATING BENEFITS 2015

- The typical on-site employment of the completed building program is estimated at approximately 39,412 to 40,533 full-time equivalent jobs, and the total employment from the operation of the building program is estimated at about 78,603 to 79,991 full-time equivalent jobs in New York City and about 95,469 to 97,013 jobs in New York State.
- The total effect from the operation of the completed building program is estimated at $31.17 to $31.36 billion annually in New York State, of which $26.78 to $26.94 billion annually would occur in New York City.
- In addition to annual PILOTs, the completed building program is estimated to generate non-property tax revenues estimated at approximately $1.17 to $1.19 billion annually.

The above figures reflect the annual operation of the economic activity on the site and do not include the effect of off-site spending by visitors to the site, which would be additional. The Proposed Action under the Pre-September 11 Scenario would restore the economic vitality of the site and the corresponding economic and fiscal benefits to approximately the same level that existed before September 11, 2001. The economic effects from visitors to the Memorial, as well as the cultural facilities and performing arts center, however, would create economic effects greater than pre-September 11 conditions.

9.4.7 PUBLIC SECTOR OPERATING COSTS OF PROPOSED ACTION

Because the population on the Project Site has been, and is proposed to be, entirely non-residential, only those community facilities that serve the non-residential population are affected by the Proposed Action. These facilities include the NYPD, FDNY, and PAPD.

As described in Chapter 8, "Community Facilities," and section 9.3.7, under the Proposed Action the total number of workers and visitors at the Project Site at any given time would be similar to Pre-September 11 conditions. Because the role of the NYPD, FDNY, and PAPD in 2015 with the Proposed Action would be similar to the role those facilities would have been expected to play in 2015 had the events of September 11 not occurred, there would be no significant changes to NYPD, FDNY, and PAPD stations, equipment, or operations. Given that the Proposed Action would generate approximately the same, or greater, levels of economic and fiscal benefits compared to Pre-September 11 conditions, the tax revenues generated by the Proposed Action would similarly offset the demands on community facilities. ✷