

Hudson Yards Redevelopment

Economic Overview and Demand Forecast

Presented by:

**Economics Research Associates and
Cushman & Wakefield**

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Objective

- **To create a strategy to unlock the value of the Hudson Yards and help secure New York's economic future**
- **To create a vibrant new mixed-use commercial and residential district**
- **To create a realistic plan to fund the infrastructure improvements that will spur private investment in the area**

Hudson Yards Today

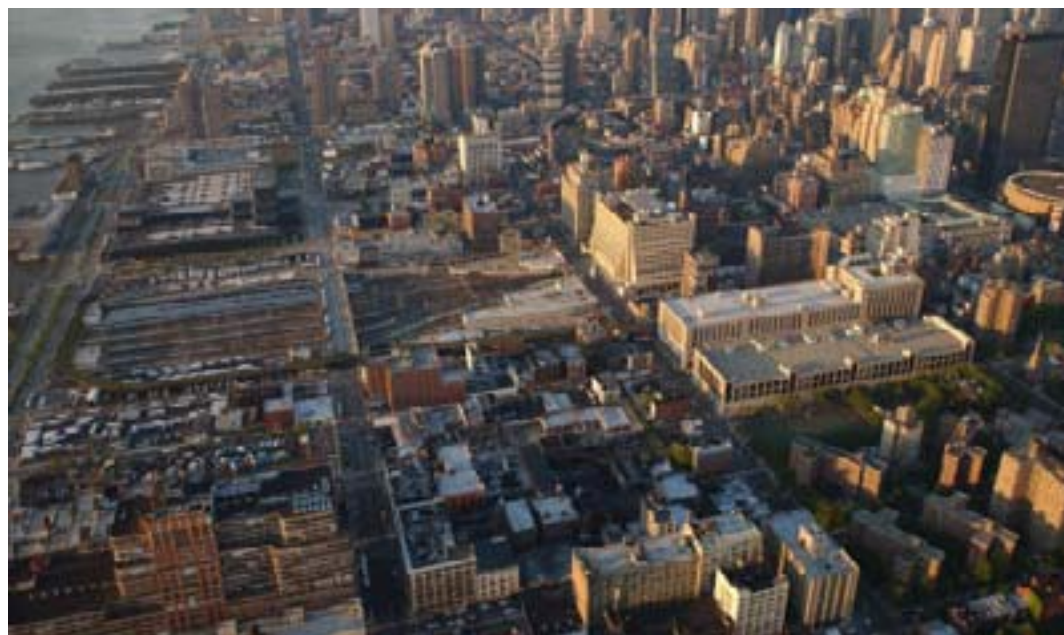


The Challenge and Opportunity

- **Midtown and Downtown are steadily losing office space market share**
- **Unless we take action now to expand available land for office development, Manhattan's competitiveness may continue to erode**
- **Hudson Yards is the largest area proximate to Midtown that can accommodate the commercial development necessary to capture New York's share of projected regional growth**

“Without taking action to create more space, New York City will miss out on hundreds of thousands of new jobs and increased economic activity in the next 20 years.”

*-Group of 35,
Preparing for the Future, 2001*



Assets. . .

- **Proximity to Midtown**
- **Access to the waterfront**
- **Major public facilities**
- **Developable land**
- **Ability to connect to existing transportation infrastructure**

. . .and Challenges

- **Outdated zoning**
- **Lack of transit access**
- **Declining employment and tax assessments**
- **Lack of public open space**
- **Dominated by surface car, truck and bus parking**
- **Javits Convention Center is not realizing its full potential**

Demand Forecasts

- **Office**
- **Residential**
- **Hotel**
- **Retail**

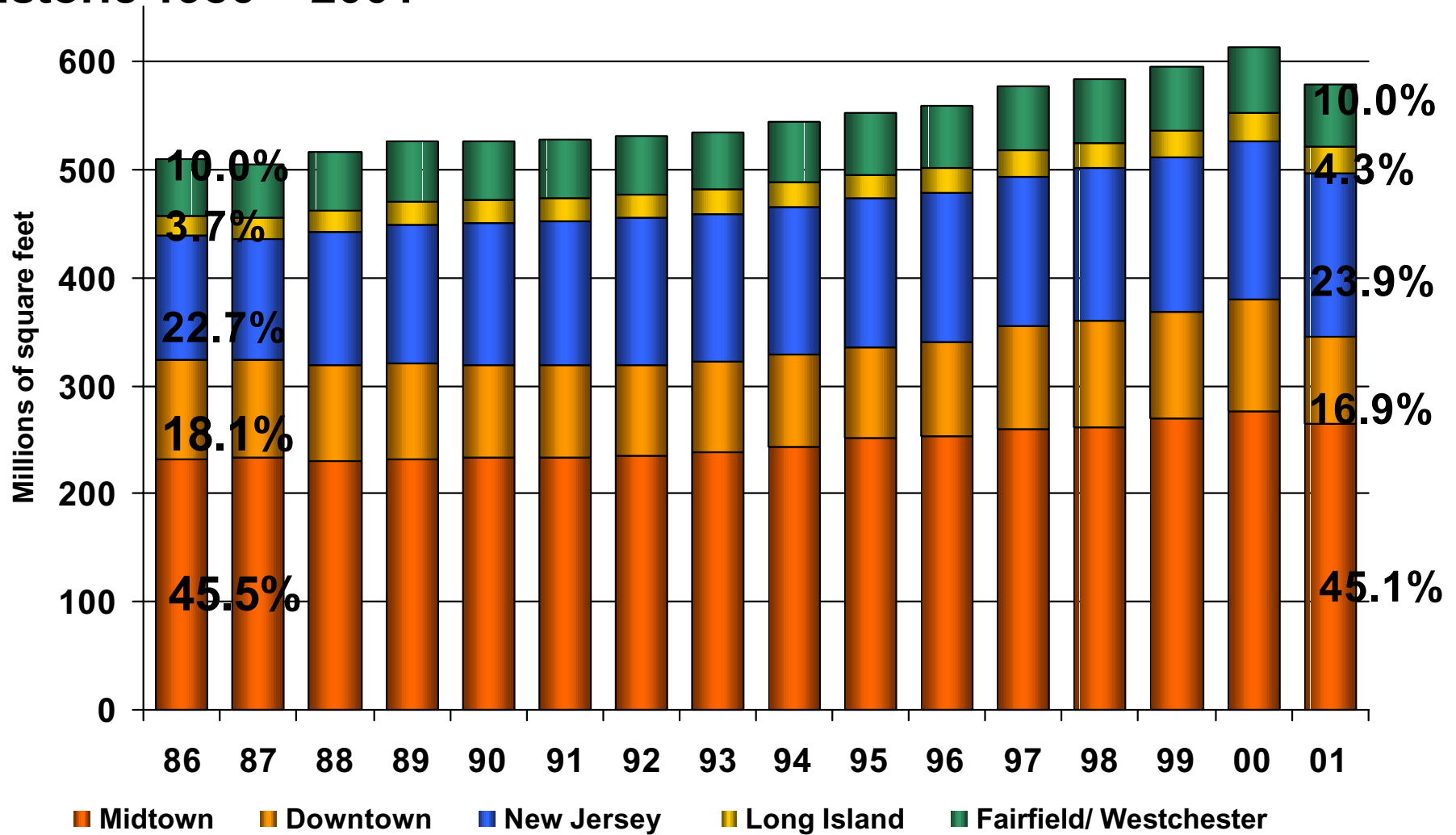
Office Development

- **Expansion of prime Midtown Office core**
- **Necessary to meet projected office demand**
- **Highest incremental property value**

Midtown Office Market

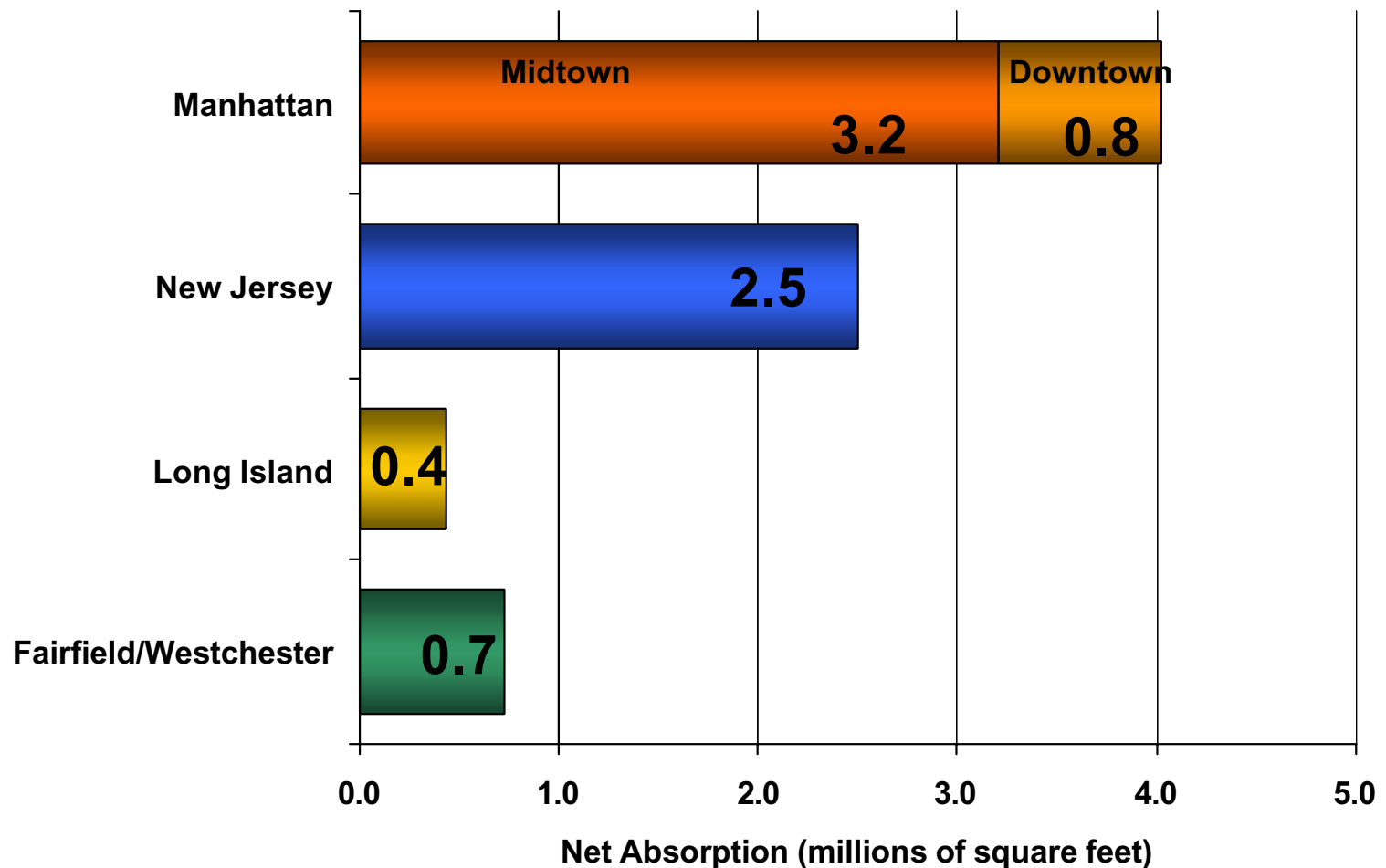
- **Comprises 294.5 million square feet, or 44% of NY region**
- **Combined with Downtown, totals 387 msf, or 59% of NY region's office inventory**
- **Premier and largest office market in the nation**
- **Manhattan's primary location for Services and FIRE sector employment**
- **Together with Downtown, Midtown is the NY region's Economic Engine**
- **Losing share of occupied office space within NY region**

New York Region Occupied Office Space by Market Historic 1986 – 2001



Source: Cushman & Wakefield Analytics

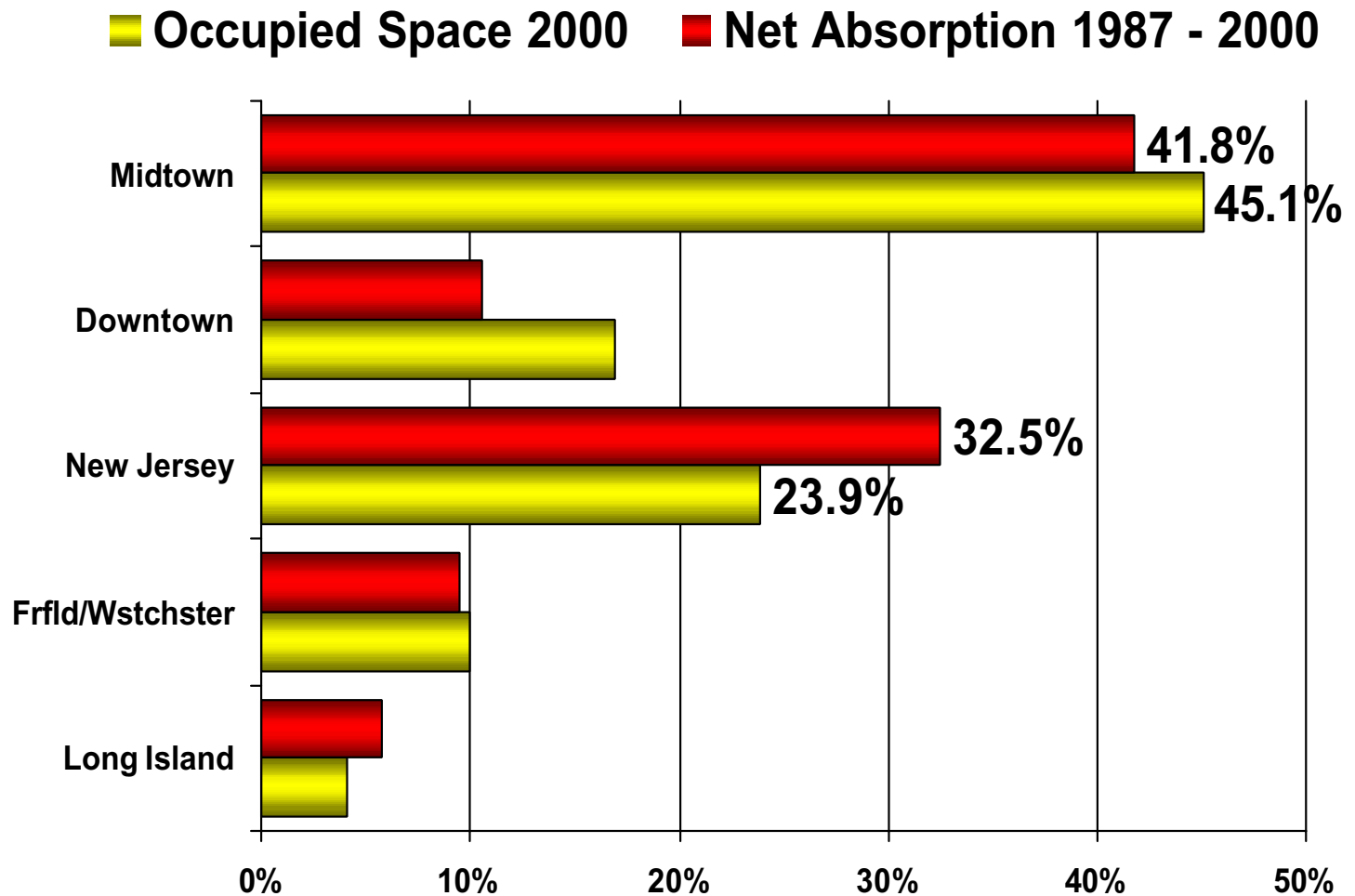
New York Region Average Annual Net Absorption by Market Historic 1987 – 2000*



* Only through 2000 due to events of 9/11/2001 which adversely impacted both total inventory and occupied space.

Source: Cushman & Wakefield Analytics

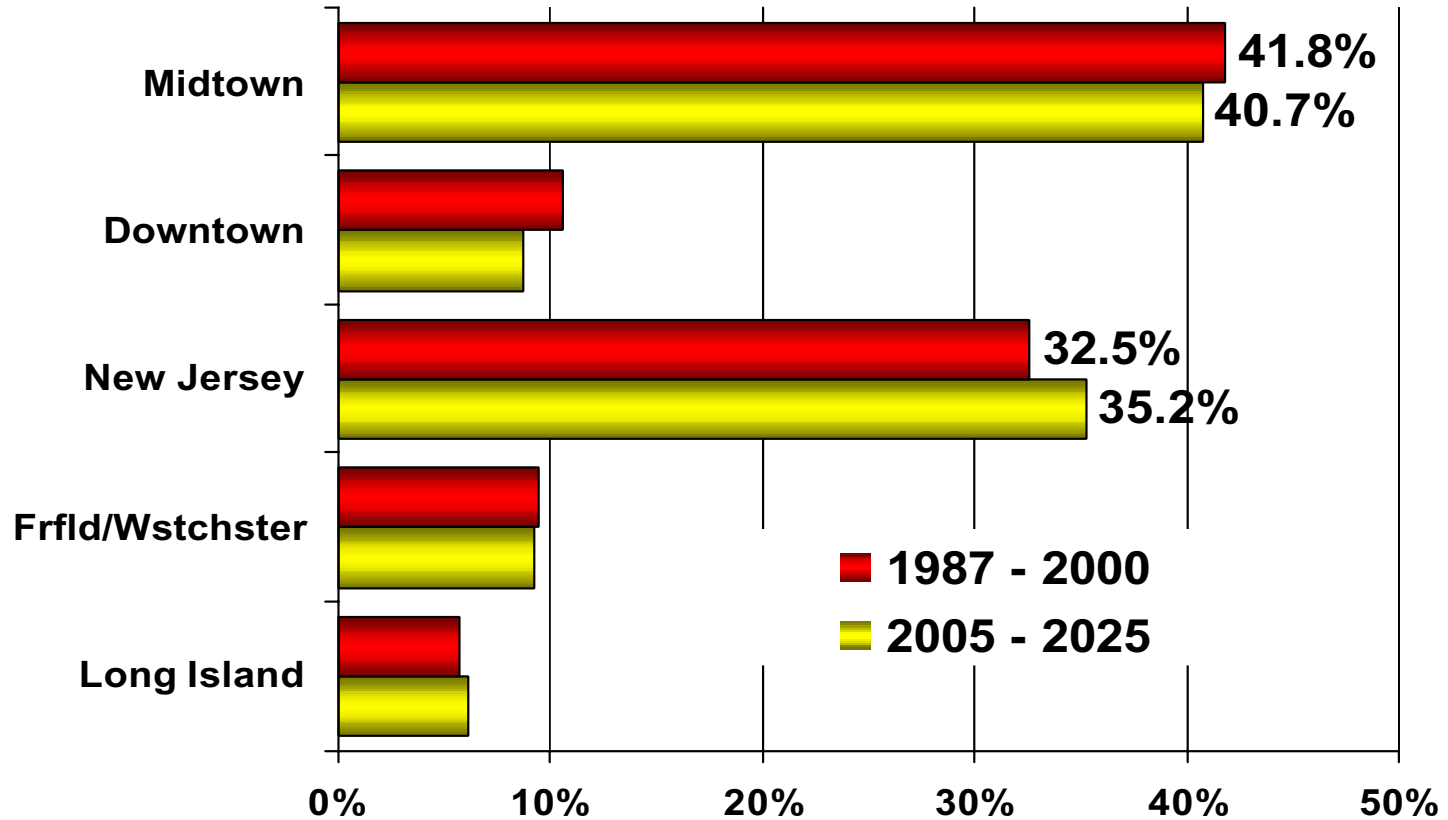
New York Region Net Absorption (1987 – 2000) versus Occupied Space 2000*



* Only through 2000 due to events of 9/11/2001 which adversely impacted both total inventory and occupied space.

Source: Cushman & Wakefield Analytics

New York Region Net Absorption (1987 – 2000*) versus Projected Net Absorption (2005 – 2025)

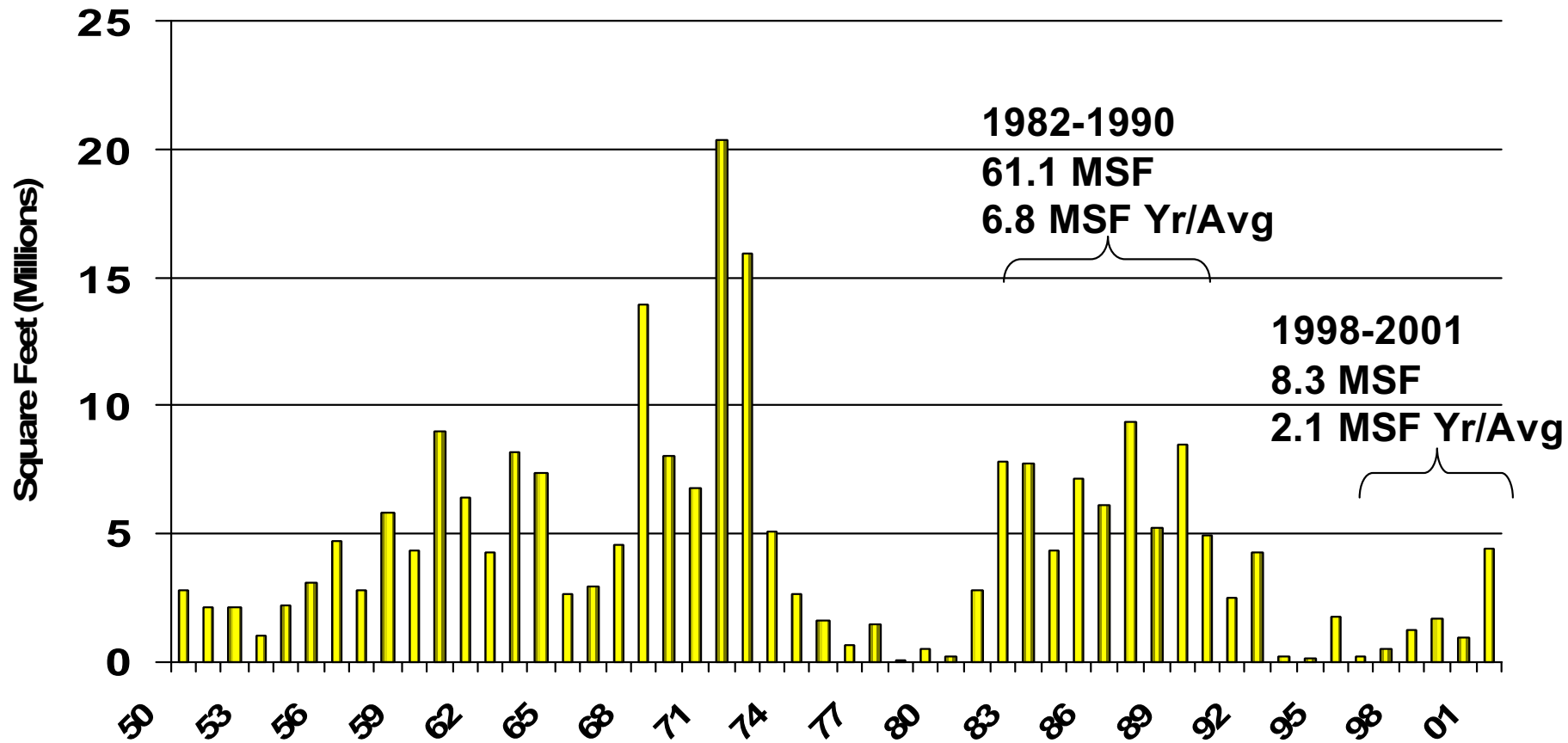


* Only through 2000 due to events of 9/11/2001 which adversely impacted both total inventory and occupied space.

Source: Cushman & Wakefield Analytics

Manhattan Office Construction 1950 - 2001

235.8 MSF or 4.5 MSF Annual Average



Source: Cushman & Wakefield Analytics

Manhattan

Selection of Potential Development Sites

Midtown = 20+ msf

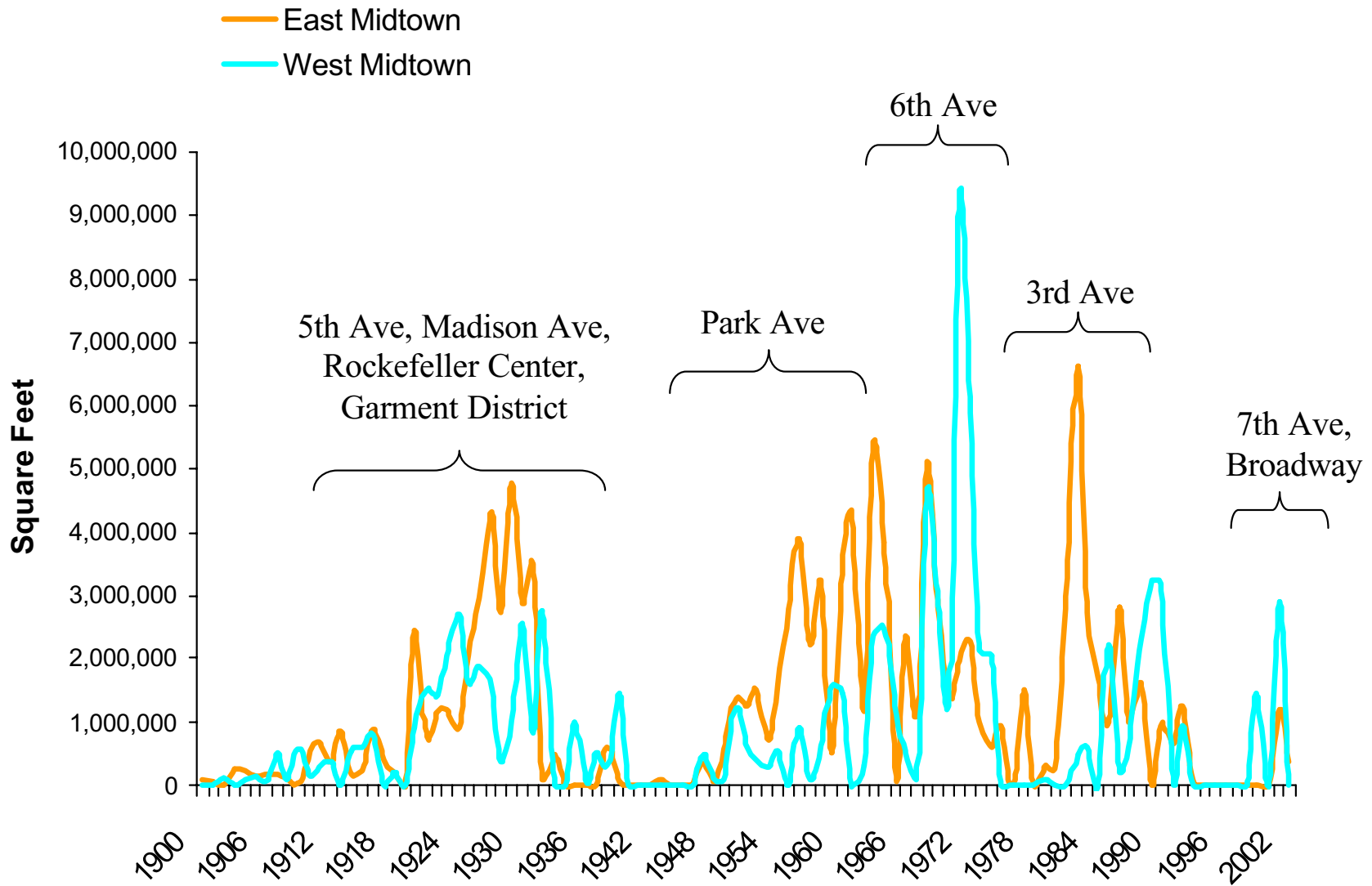
<u>Site</u>	<u>MSF</u>
■ Con Edison	2.5
■ One Bryant Park	2.1
■ 20 Times Square	1.3
■ Hotel Pennsylvania	1.1
■ Roosevelt Hotel	1.0

Downtown = 13-15 msf

<u>Site</u>	<u>MSF</u>
■ World Trade Center	10.0
■ Site 26/BPC	1.8
■ 55 Water St	0.8
■ 15 William St	0.5

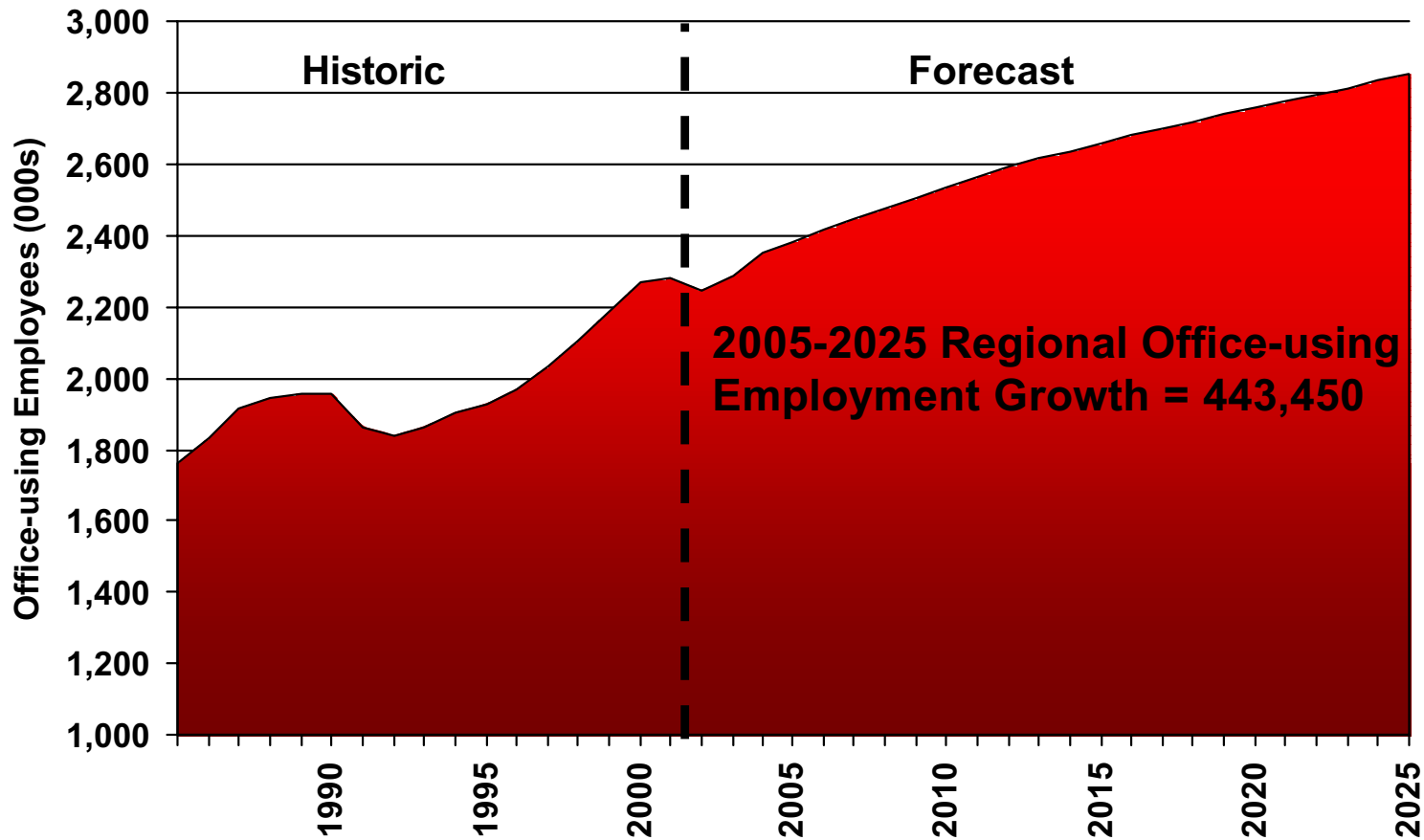
Source: Cushman & Wakefield Analytics

Midtown Office Construction 1900 - 2002



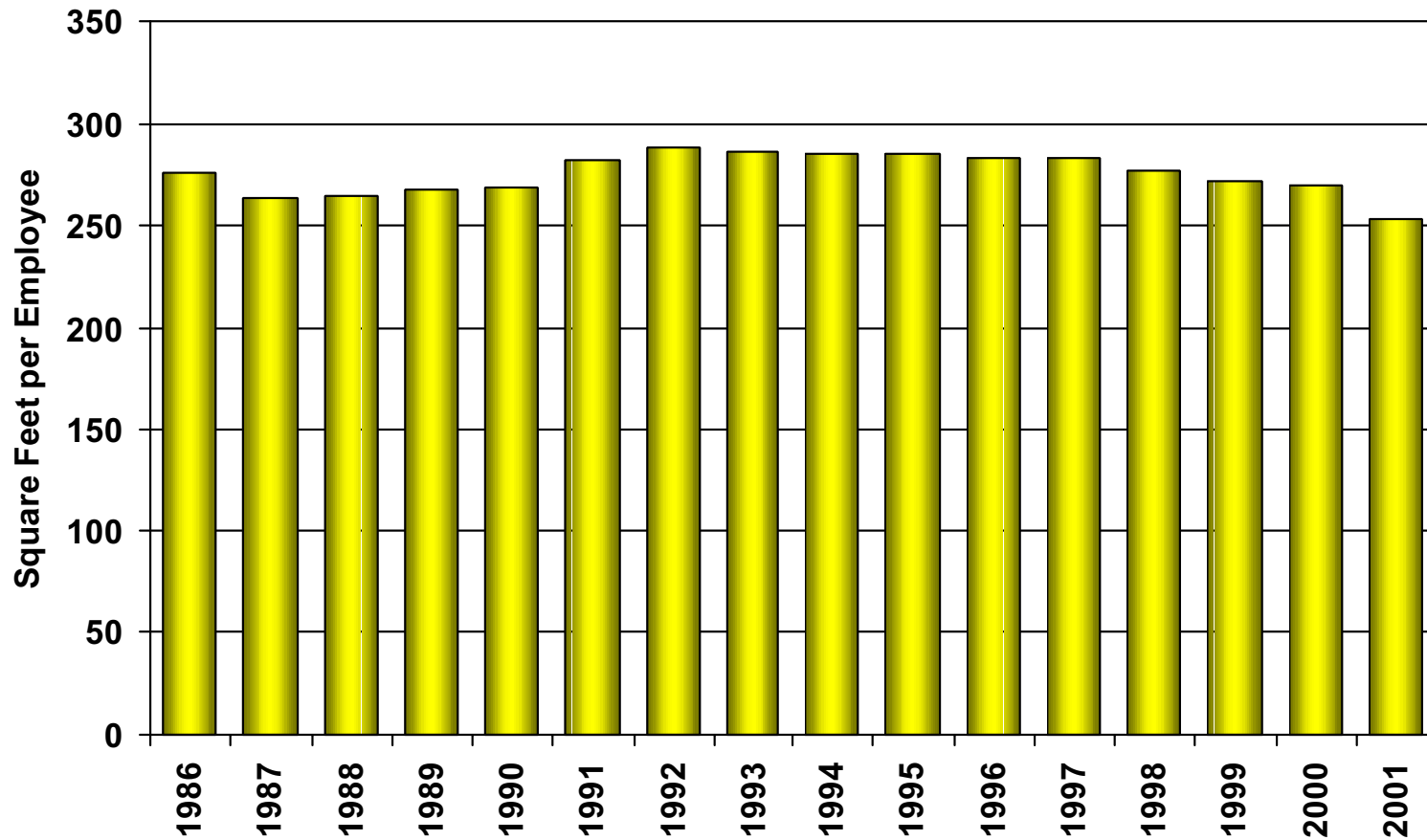
Source: Cushman & Wakefield Analytics

New York Region Office-using Employment by Year 1986 – 2025



Source: Economy.com, NYC Planning, NYC Office of Management and Budget, Cushman & Wakefield Analytics

New York Region Occupied Office Space per Office-using Employee Historic 1986 – 2001



Sources: *Economy.com, Cushman & Wakefield Analytics*

New York Region Office-Using Employment and Office Demand Projected 2005 – 2025

Total Change in Office-Using Employment = 443,450

Scenario	Square Feet Per Employee	Total Demand (Square Feet)
Low	200	88,690,000
Base	250	110,862,250
High	300	133,035,000

Source: Economy.com, NYC Office of Management and Budget, NYC Planning, Cushman & Wakefield Analytics

New York Region Change in Occupied Space by Market Projected 2005 – 2025

	Capture Rate*	Forecasted Net Absorption (MSF)		
		Low	Base	High
Midtown	40.7%	36.1	45.1	54.1
Downtown	8.7%	7.7	9.6	11.6
New Jersey	35.2%	31.2	39.0	46.8
Fairfield/ Westchester	9.2%	8.2	10.2	12.2
Long Island	6.2%	5.5	6.9	8.2
Total	100.0%	88.7	110.9	133.0

*Capture Rate based on recent trends

Source: Cushman & Wakefield Analytics

Midtown Office Market 2005 - 2025 Demand Forecast Assumptions

- Regional office-using employment growth of 443,450 results in demand for 89 msf, **111 msf** or 133 msf
- Midtown absorption represents 40.7% of regional demand
- Even with declining market share, Midtown's office demand will be 36 msf, **45 msf** or 54 msf through 2025
- Potential Midtown development sites are insufficient to meet future demand (current estimate of 20 msf)
- Hudson Yards is forecast to capture 35% to 40% of Midtown's demand based upon recent Class A development activity

Hudson Yards

Capture Rate of Midtown's Office Demand

Projected Total 2005 – 2025

Capture Rate	Forecasted Net Absorption (MSF)		
	Low	Base	High
40%	14.4	18.0	21.7
35%	12.6	15.8	19.0

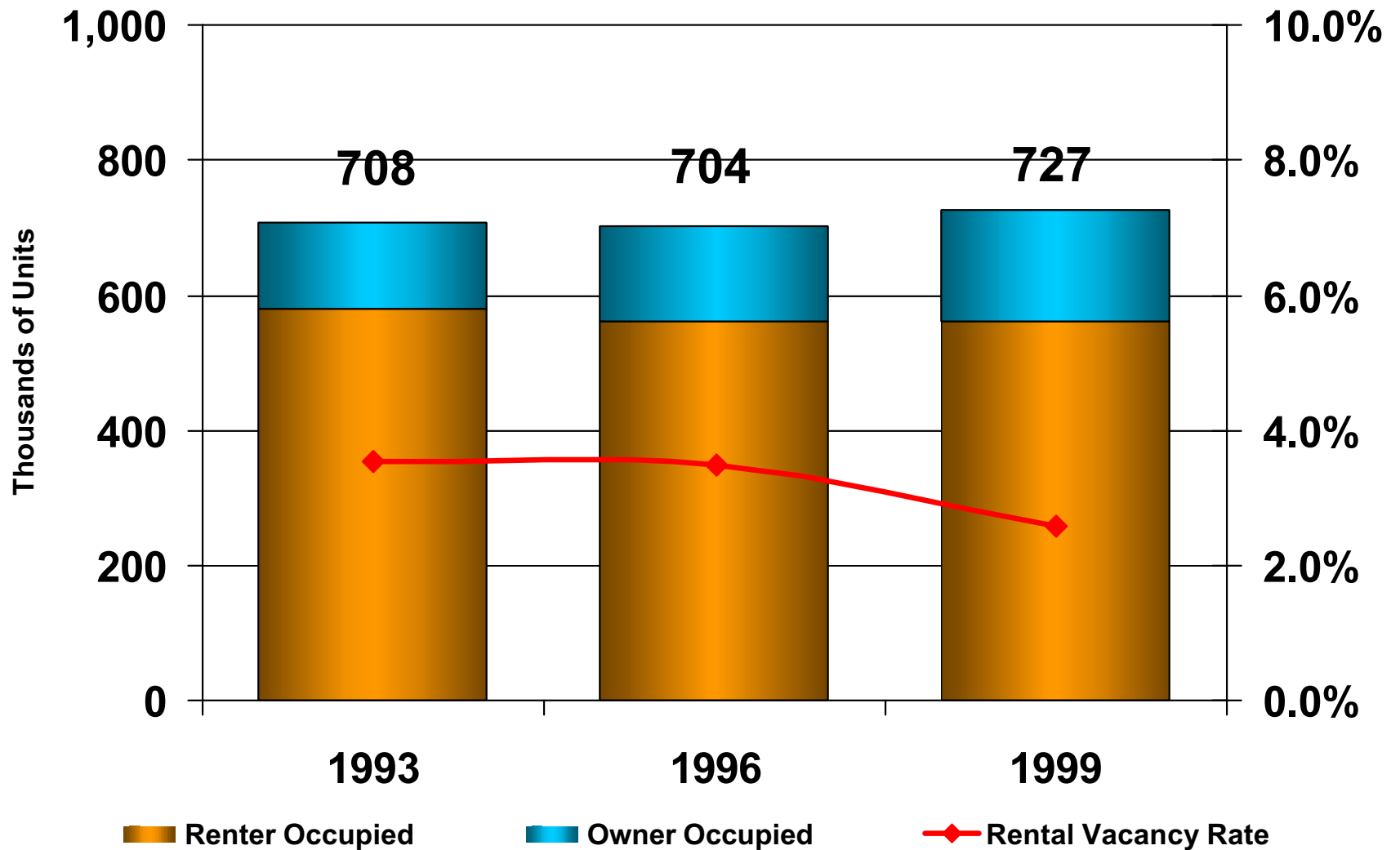
Source: Cushman & Wakefield Analytics

Residential

Residential Development

- **New York City is largest housing market in the nation**
 - Manhattan comprises 727,000 occupied units
 - Manhattan is one of the nation's tightest housing markets with an estimated vacancy rate of 3.2%
- **Hudson Yards residential development**
 - Natural extension of West Side residential neighborhoods
 - Complements Office expansion
 - Enhances 24 hour-7 day use

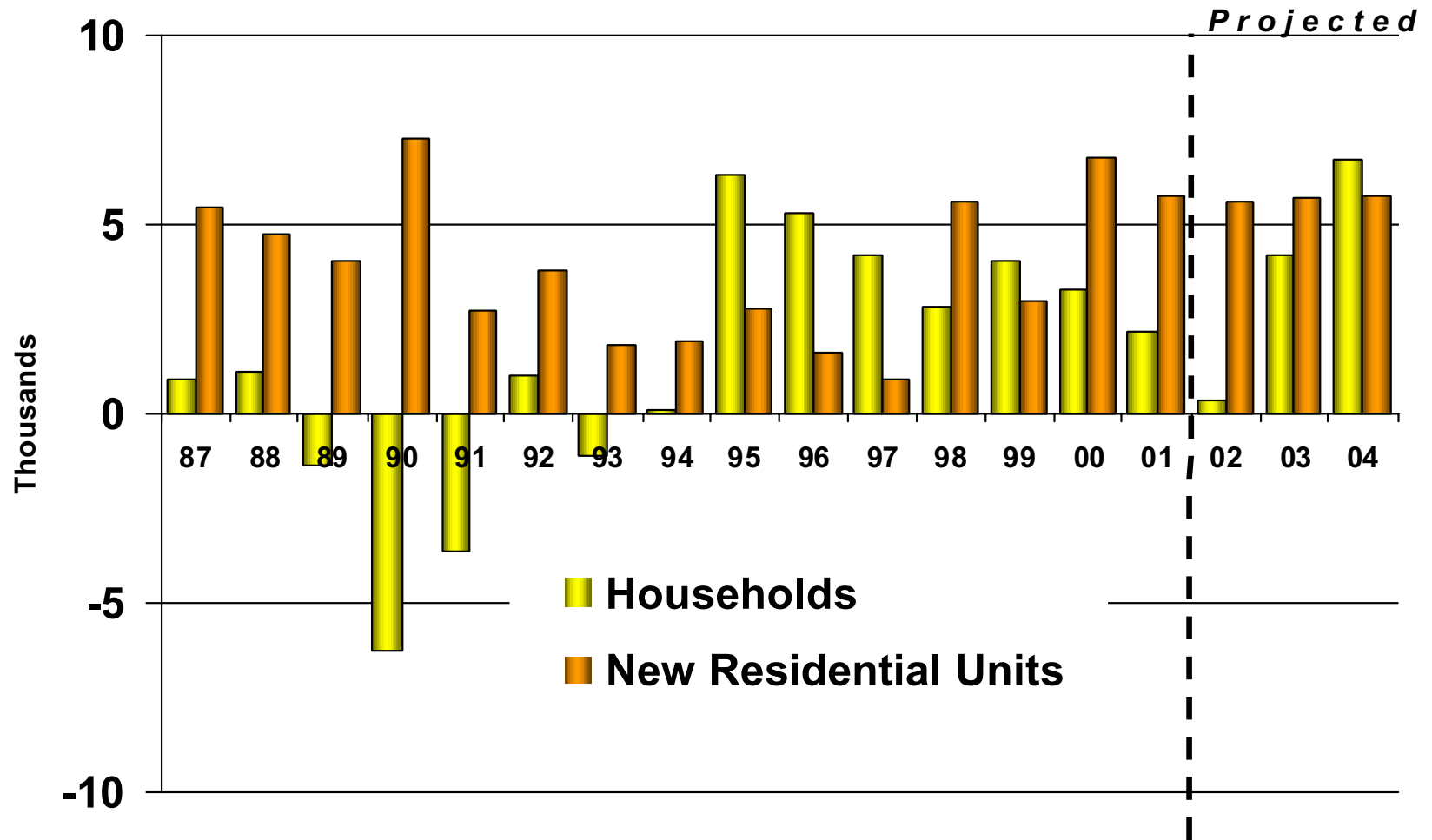
Manhattan Total Occupied Units Rental Occupied Units vs. Vacancy Rate 1993, 1996, 1999



Source: Cushman & Wakefield Analytics, Housing and Vacancy Survey (1993, 1996, 1999)

ADVISORY GROUP

Manhattan Household Growth vs. Residential Construction 1987 – 2004

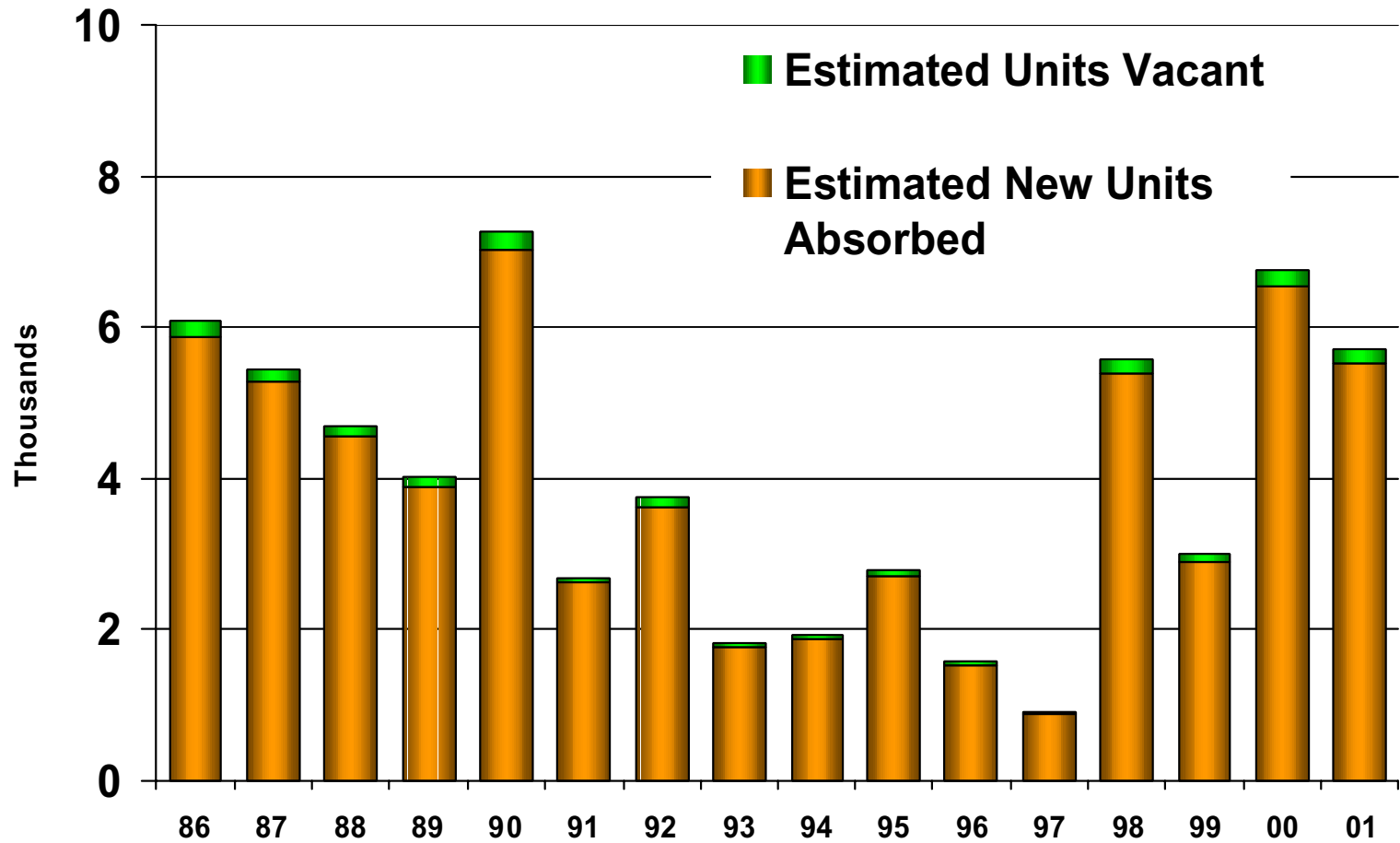


Source: Cushman & Wakefield Analytics, Economy.com, Corcoran Group, NYC Planning

Manhattan

Estimated Absorption of New Units

Historic 1986 – 2001*



* Applied average vacancy rate of 3.2 percent to number of total new residential units.

Source: Cushman & Wakefield Analytics, NYC Housing and Vacancy Survey

Large-Scale Housing Development on the West Side

Battery Park City

- 6,509 units completed between 1982 and 2001
- Average of 361 units per year - roughly one building
- An additional 2,931 units are planned

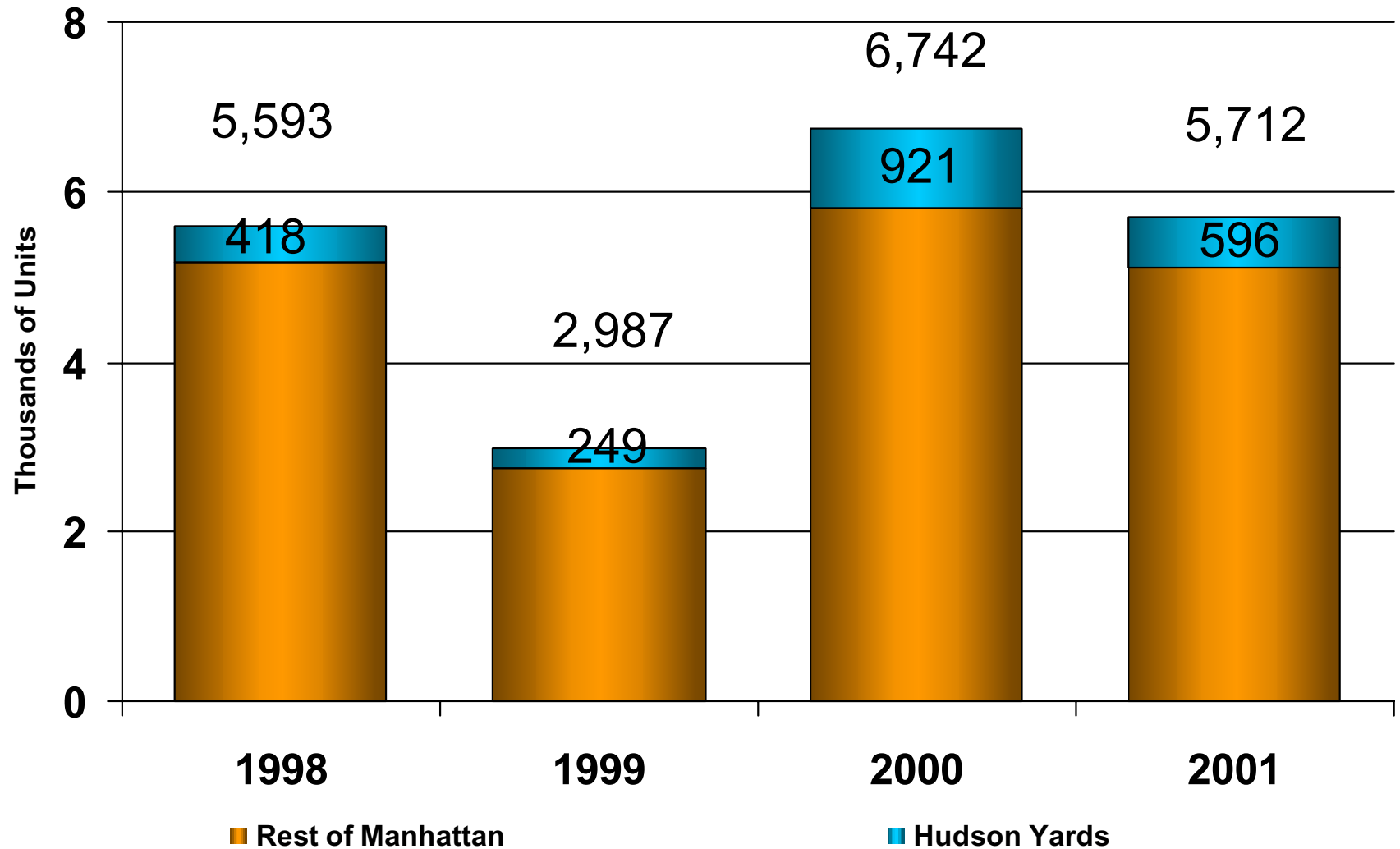
Trump's Riverside South

- 1,919 units completed between 1997 and 2001
- Average of 384 units per year - roughly one building
- An additional 3,781 units are planned

Manhattan

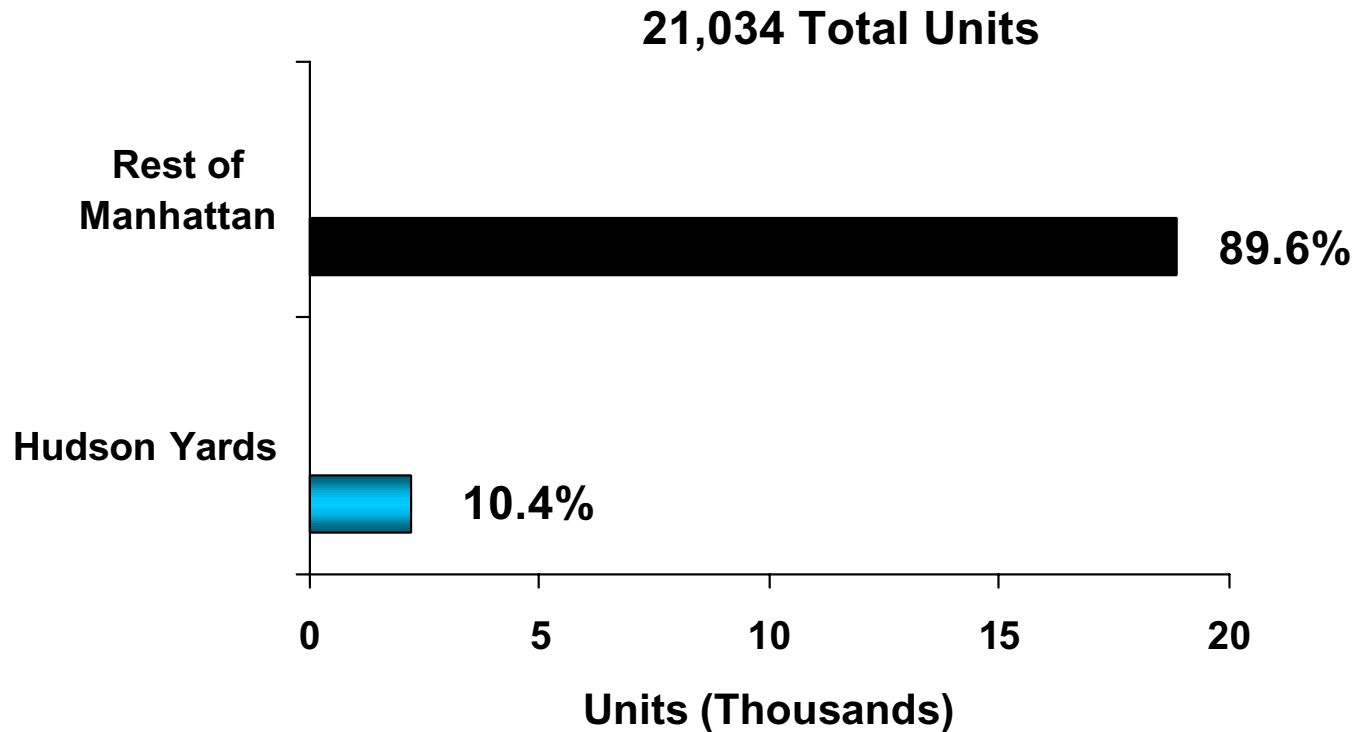
Total New Units vs Hudson Yards Share

1998-2001



Source: Cushman & Wakefield Analytics, NYC Planning

Manhattan Hudson Yards Share of Total Manhattan New Units 1998-2001



Source: Cushman & Wakefield Analytics, NYC Planning

Manhattan Residential Market 2005 - 2025 Demand Forecast Assumptions

- Projected new households total **40,480** or **2,024** annually
- Replacement housing typically represents 0.5% of existing inventory (727,000 units), or **3,000** to **5,000** units annually
- Annual new demand ranges from **5,024** to **7,024** units
- Capture rate for Hudson Yards is based on recent strong absorption of 10.4%

Hudson Yards

Capture Rate of Manhattan's Housing Demand

Projected 2005 – 2025

Scenario	Total Annual New Units	10.4% Share of Units	Total * Annual Square Feet	Total MSF (2005-2025)
Low	5,024	522	522,000	10.4
Base	6,024	626	626,000	12.5
High	7,024	730	730,000	14.6

* Average unit equals 1,000 square feet

Source: NYC Housing and Vacancy Survey, NYC Planning, Cushman & Wakefield Analytics

Hotel

Hotel Development

- **Important amenity to support commercial and convention center activity**
- **Provides for large convention type hotels proximate to Jacob Javits Convention Center**
- **Complements 24 hour-7day use of Hudson Yards**

Hotel Market

- **Comprises 56,000 hotel rooms in Manhattan**
- **Approximately 23,000 are convention style hotel rooms in Midtown**
- **Midtown is the prime hotel location in Manhattan**
- **New development in Hudson Yards will generate demand for hotels within the area**

Hotel Room Demand

Hotel Room Demand and Segmentation

	Year 2025 Supportable Rooms	Year 2025 Segmentation
Hudson Yards Corporate	638	22%
Other Midtown Corporate	643	22%
Javits Convention Center	936	32%
Non-Javits Group	257	9%
Leisure	477	16%
Total	2952	100%

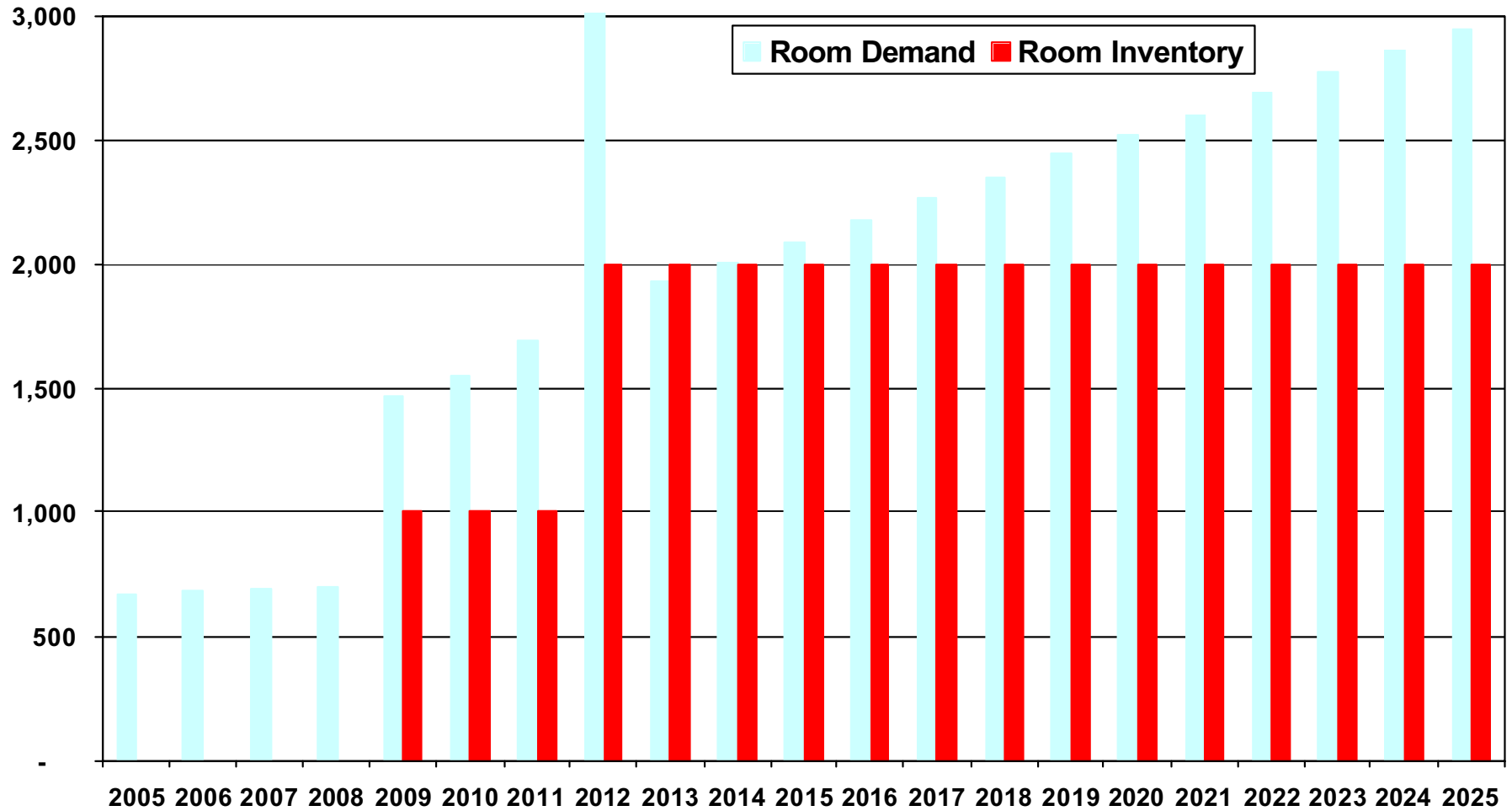
Source: Economics Research Associates

- **Capture rate of Javits room demand and corporate demand from within Hudson Yards remains constant - with roomnights increasing as demand generators grow**
- **Capture of non-Javits group, leisure, and corporate demand from beyond Hudson Yards slowly increases over time**

Hotel Room Demand

Projected Room Demand and Inventory

2005-2025



Source: Economics Research Associates

Retail

Retail Development

Retail is a key component to a vital urban neighborhood

- **Provides extended use and activity both during the day, at night and on weekends**
- **Necessary to support Residential development, as well as Office and Hotel uses**

Retail Market

- **Retail exists on the West Side along key corridors like West 34th and West 42nd Streets**
- **New employees, residents and visitors will need convenient stores, restaurants and services**

Hudson Yards

Supportable Retail Square Feet

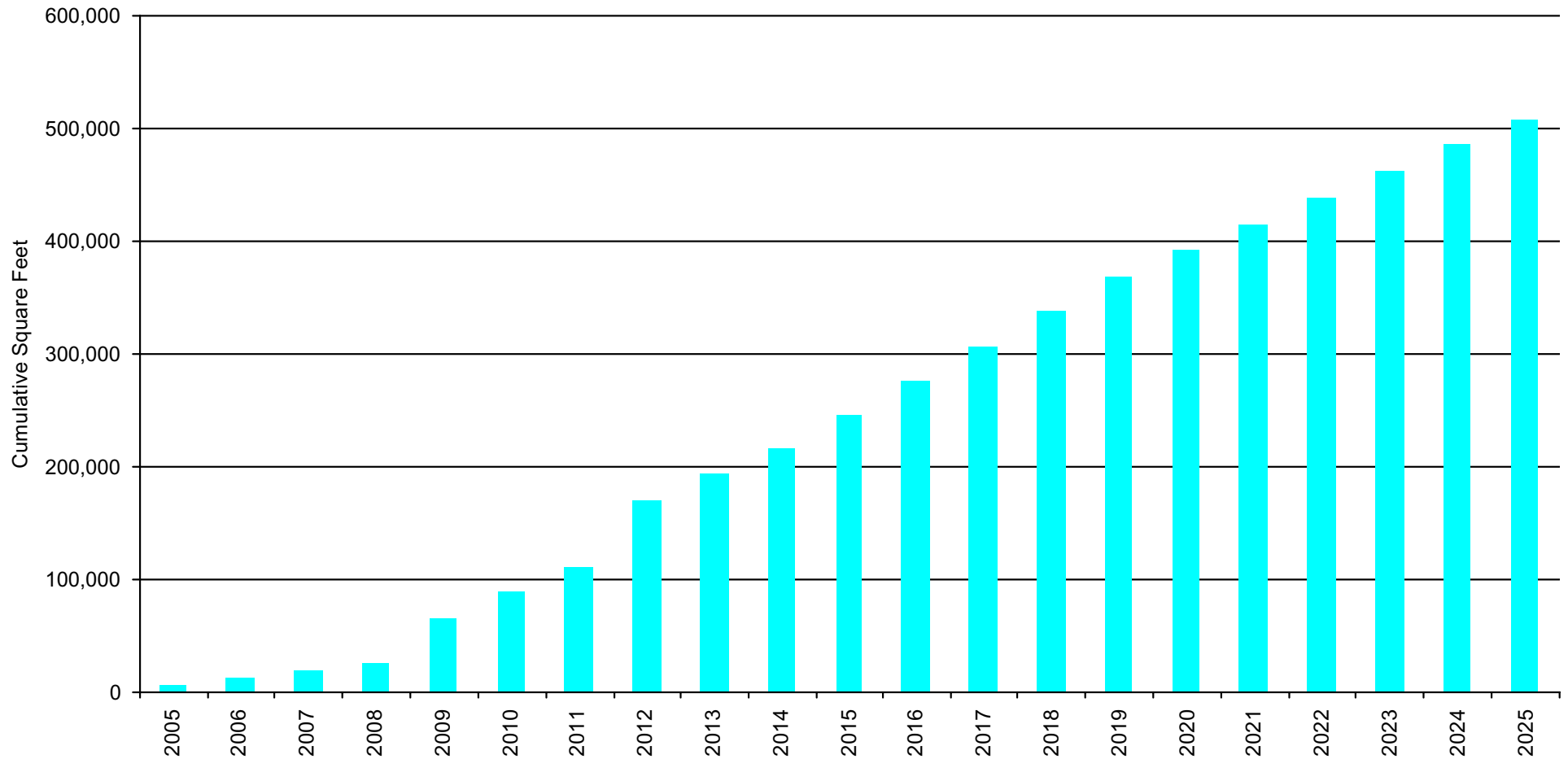
Supportable Square Feet by Demand Source

	Supportable Square Feet	Percent of Total
Office Workers	284,000	56%
Local Residents	116,000	23%
Hotel Guests	68,000	13%
Inflow/Visitors	40,000	8%
	508,000	100%

Source: Economics Research Associates

Hudson Yards

Supportable Retail Square Feet Projected 2005-2025



Source: Economics Research associates

The Time Frame of the Market Forecast and the Revenue Projection

- Real estate development is highly cyclical
- Market forecasts reflect 20-year employment outlook
- Potential financing approaches likely to require a longer-term revenue projection of 30 - 40 years
- For this analysis, we have assumed continued demand growth at same pace from 2025 - 2035

Hudson Yards

Base Case Scenario Development Forecast

- Housing and Hotel development reaches the planning target--and is “built out”--earlier than other uses

2005 - 2025		2005 - 2035	
Demand Forecast		Financial Forecast Model	
<u>Property Type</u>	<u>MSF</u>	<u>Property Type</u>	<u>MSF</u>
■ Office	18.0	■ Office	28.0
■ Residential	12.5	■ Residential	12.5
■ Hotel	1.0	■ Hotel	1.5
■ Retail	0.5	■ Retail	0.7

Source: Cushman & Wakefield Analytics, Economic Research Associates

Hudson Yards Demand Forecast Summary

“Without taking action to create more space, New York City will miss out on hundreds of thousands of new jobs and increased economic activity in the next 20 years.”

-Group of 35, Preparing for the Future, 2001

- **Hudson Yards Redevelopment area is the natural extension of Midtown**
- **The only large land area in Midtown that is underutilized**
- **Proven demand for office, housing, hotel and retail uses**
- **Public policy initiatives are necessary now to enable the long term growth of this strategic Manhattan location**