The New York Region's Post-September 11 Economic Geography

Prior to the terrorist attack on September 11, the forces of economic decentralization in the broad New York metropolitan region were still ongoing, but at a less intense pace compared to the 1970s and 1980s. But the attacks directly destroyed 13.4 million square feet of World Trade Center office space from the Lower Manhattan market, space that is not likely to be replaced in this decade. This inventory destruction, when combined with the sheer physical disruption to corporate operations and the traumatic human losses, is likely to cause renewed long-term decentralization in the region. A new locational strategy, particularly for the region's major financial firms, appears to be emerging: the avoidance of excessive concentration of human and physical resources. This implies a regional decentralized framework that goes beyond the dispersion of back office functions to the segmentation of a firm's higher-level activities. This is a different strategy of place, one of distributed workplaces on different power and telecommunication grids to ensure business continuity in the face of disaster. The suburban ring, Midtown Manhattan and select core locations such as Jersey City, should be the economic beneficiaries of this change, adding pressure on the suburban ring's congested highway infrastructure as well as on the overburdened rail lines converging on Midtown Manhattan.

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The broad New York metropolitan region experienced sustained economic decentralization during the final three decades of the 20th century. The most significant shifts came during the 1980s, when a massive suburban office-building boom occurred. The emerging knowledge-based, post-industrial economy is mainly housed in office buildings. That is where an increasing share of the nation's value-added output is produced. Thus, a new pattern of primary office location represented a significant dispersion of what would now be called the new information-age economy. However, the pace of decentralization began to slow during the post-recession years of the 1990s, due to a myriad of factors. But the terrorist attacks of September 11 then set in motion a number of forces that will probably give further impetus to dispersion. Among these are business-continuity planning and a new post-disaster corporate locational paradigm. These new imperatives in particular will drive the decisions of large-scale financial services firms and related economic sectors. But before these forces and imperatives are examined, it is useful to examine the long-term evolution of the region's economic geography, and the probable shifts in that geography in the absence of September 11.

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The Region Defined

The New York region, as delineated by the Regional Plan Association (RPA), consists of 31 counties in three states (New York, New Jersey, and Connecticut; see Table 1).[1] Centered on New York City, particularly Manhattan, it is the nation's largest conurbation with nearly 20 million residents living in some 16,000 municipalities across 13,000 square miles (Regional Plan Association 2002). For the purpose of this analysis, the 31-county, tri-state area has been divided into two components or sectors—the "regional core" and the "suburban ring" (Table 1). The suburban ring is quite heterogeneous, ranging from highly developed, in in-lying suburban counties, such as Nassau in New York and Middlesex in New Jersey, to dispersed rural-exurban counties, such as Sussex in New Jersey and Sullivan in New York. Before setting out to assess the impacts of September 11 on the distribution of economic activity in the New York region, here is a brief overview of metropolitan spatial trends between 1970 and 1999.

A Decentralizing Regional Economy

As in many other US metropolitan regions, the tri-state region experienced sustained employment decentralization over the nearly three-decade period from 1970 to 1999. In the New York region, however, the suburbanization of employment was coupled with relatively slow economic growth. Total employment in the region grew from 9.3 million jobs in 1970 to 11.8 million jobs in 1999, a gain of 2.5 million or 27.4% over the 29-year period. This was an extraordinary low rate of growth, trailing significantly behind the 79.4% national employment gain.[2]

The regional core lagged considerably further behind both the region and the nation, experiencing virtually no growth (0.5%) from 1970 to 1999. While most core counties posted net job losses, employment in the suburban ring nearly doubled, expanding at a rate of 64.1% (Table 2). Consequently, by 1999, the suburbs accounted for the critical mass (54.5%) of the tri-state region's total employment, up from 42.3% in 1970.

Table 1: Tri-State Region

REGIONAL CORE	
New Jersey Counties	New York Counties
Essex Hudson Union	Bronx Kings New York Queens Richmond

SUBURBAN RING		
Connecticut Counties	New Jersey Counties	New York Counties
Fairfield Litchfield New Haven	Bergen Hunterdon Mercer Middlesex Monmouth Morris Ocean Passaic Somerset Sussex Warren	Dutchess Nassau Orange Putnam Rockland Suffolk Sullivan Ulster Westchester

Table 2: Tri-State Region Total Employment Change by Metropolitan Sector and County, 1970–1999

	1970		1999		Change: 1970–1999	
	Number	Percent	Number	Percent	Number	Percent
TRI-STATE REGION TOTAL	**9,283,955**	**100.0%**	**11,829,307**	**100.0%**	**2,545,352**	**27.4%**
REGIONAL CORE TOTAL	**5,355,962**	**57.7**	**5,383,689**	**45.5**	**27,727**	**0.5**
New Jersey Sector Total	**1,067,990**	**11.5**	**1,016,776**	**8.6**	**(51,214)**	**(4.8)**
Essex	486,903	5.2	444,572	3.8	(42,331)	(8.7)
Hudson	287,699	3.1	285,502	2.4	(2,197)	(0.8)
Union	293,388	3.2	286,702	2.4	(6,686)	(2.3)
New York Sector Total	**4,287,972**	**46.2**	**4,366,913**	**36.9**	**78,941**	**1.8**
Bronx	266,677	2.9	278,709	2.4	12,032	4.5
Kings	633,774	6.8	601,406	5.1	(32,368)	(5.1)
New York (Manhattan)	2,765,287	29.8	2,708,317	22.9	(56,970)	(2.1)
Queens	566,133	6.1	658,417	5.6	92,284	16.3
Richmond	56,101	0.6	120,064	1.0	63,963	114.0
SUBURBAN RING TOTAL	**3,927,993**	**42.3**	**6,445,618**	**54.5**	**2,517,625**	**64.1**
Connecticut Sector Total	**762,693**	**8.2**	**1,127,304**	**9.5**	**364,611**	**47.8**
Fairfield	366,232	3.9	565,534	4.8	199,302	54.4
Litchfield	54,784	0.6	94,185	0.8	39,401	71.9
New Haven	341,677	3.7	467,585	4.0	125,908	36.9
New Jersey Sector Total	**1,507,430**	**16.2**	**2,717,232**	**23.0**	**1,209,802**	**80.3**
Bergen	384,905	4.1	575,662	4.9	190,757	49.6
Hunterdon	24,814	0.3	65,603	0.6	40,789	164.4
Mercer	153,756	1.7	237,204	2.0	83,448	54.3
Middlesex	238,262	2.6	470,935	4.0	232,673	97.7
Monmouth	159,792	1.7	314,011	2.7	154,219	96.5
Morris	145,836	1.6	345,894	2.9	200,058	137.2
Ocean	61,089	0.7	179,091	1.5	118,002	193.2
Passaic	211,493	2.3	221,951	1.9	10,458	4.9
Somerset	74,528	0.8	207,649	1.8	133,121	178.6
Sussex	21,601	0.2	53,511	0.5	31,910	147.7
Warren	31,354	0.3	45,721	0.4	14,367	45.8
New York Sector Total	**1,657,870**	**17.9**	**2,601,082**	**22.0**	**943,212**	**56.9**
Dutchess	96,889	1.0	140,358	1.2	43,469	44.9
Nassau	580,233	6.2	766,660	6.5	186,427	32.1
Orange	90,010	1.0	157,471	1.3	67,461	74.9
Putnam	12,585	0.1	32,986	0.3	20,401	162.1
Rockland	78,881	0.8	137,870	1.2	58,989	74.8
Suffolk	328,539	3.5	723,618	6.1	395,079	120.3
Sullivan	25,526	0.3	32,500	0.3	6,974	27.3
Ulster	52,415	0.6	83,359	0.7	30,944	59.0
Westchester	392,792	4.2	526,260	4.4	133,468	34.0

Source: US Bureau of Economic Analysis, Regional Economic Information System, 1969–1999

Meanwhile, the regional core's share of total employment fell from a dominant 57.7% in 1970 to 45.5% by 1999. The result was a near virtual reversal in relative regional employment position over this period with the regional core's share of total employment reduced from majority to minority status.

The Position of Manhattan

Another perspective on the scale of the employment decentralization is the relative shift in position of Manhattan (New York County), the region's dominant job center, versus New Jersey's suburban counties. In 1970, Manhattan's total employment (2.8 million jobs) was nearly double that of suburban New Jersey (1.5 million). By 1999, the total employment of the New Jersey suburban ring counties (2.7 million jobs) exceeded, albeit barely, that of Manhattan (also 2.7 million jobs) by about 9,000 jobs. Between 1970 and 1999, Manhattan had lost 56,970 jobs (-2.1%), while the New Jersey sector of the suburban ring gained 1.2 million jobs. This represented an increase of 80.3%, a rate of growth slightly higher than the nation's 79.4%. Even though Manhattan remained unchallenged as the region's largest single economic entity throughout this period, employment growth in New Jersey's sector of the suburban ring finally brought it to parity. By 1999, both Manhattan and New Jersey's suburban ring had an equal share (23%) of the region's total employment base. This stands in contrast to 29 years earlier (1970), when Manhattan accounted for 29.8% of the region's employment total compared to only 16.2% for New Jersey's ring suburbs.

Different Eras of Decentralization

While the New York region was characterized by slow growth and employment decentralization between 1970 and 1999, over these three decades the region experienced dramatic economic ups and downs and varying degrees of employment suburbanization. As shown in Table 3, in the 1970–1980 period, total employment in the tri-state region grew at a very sluggish pace, gaining only 425,460 jobs (4.6%). This was the result of the regional core hemorrhaging jobs (-529,109 jobs or -9.9%), while the suburban ring grew quite strongly (+954,569 jobs or 24.3%). Thus, the regional core exhibited a marked decline in regional employment share (57.7% to 49.7%) between 1970 and 1980.

Relatively stagnant through the 1970s, the tri-state boomed in the 1980s, driven by rapid growth in financial, business, and professional services (Schwartz 1992). As detailed in Table 4, between 1980 and 1990, the region added more than 1.4 million jobs (14.7%), more than triple the absolute growth of the 1970s (425,460 jobs). The suburban ring continued a pattern of strong employment increases, adding 1.1 million jobs (21.7%). Whereas suburban employment growth was limited primarily to jobs in retail and consumer services in prior decades, in the 1980s, suburban counties captured some of the growth in financial, business, and professional services—activities that had once been considered the exclusive domain of the urban core. As a result of these gains, former "bedroom communities" matured into bustling economic centers, blurring the once distinct boundaries between the urban core and the residential fringe. *Washington Post* journalist Joel Garreau (1991) coined these brand-new urban forms "edge cities." Although these edge cities were reputedly self-sufficient economic entities independent of central cities, the region as a whole benefited from New York City's status as the nation's premiere financial center and hub of global commerce.

As the suburban ring's edge cities emerged, the regional core experienced an economic rebound, staunching the employment hemorrhage of the preceding decade. New York City benefited from an influx of

Table 3: Tri-State Region Total Employment Change by Metropolitan Sector and County, 1970–1980

	1970		1980		Change: 1970–1980	
	Number	Percent	Number	Percent	Number	Percent
TRI-STATE REGION TOTAL	**9,283,955**	**100.0%**	**9,709,415**	**100.0%**	**425,460**	**4.6%**
REGIONAL CORE TOTAL	**5,355,962**	**57.7**	**4,826,853**	**49.7**	**(529,109)**	**(9.9)**
New Jersey Sector Total	**1,067,990**	**11.5**	**1,006,069**	**10.4**	**(61,921)**	**(5.8)**
Essex	486,903	5.2	444,734	4.6	(42,169)	(8.7)
Hudson	287,699	3.1	259,387	2.7	(28,312)	(9.8)
Union	293,388	3.2	301,948	3.1	8,560	2.9
New York Sector Total	**4,287,972**	**46.2**	**3,820,784**	**39.4**	**(467,188)**	**(10.9)**
Bronx	266,677	2.9	229,736	2.4	(36,941)	(13.9)
Kings	633,774	6.8	522,712	5.4	(111,062)	(17.5)
New York (Manhattan)	2,765,287	29.8	2,464,729	25.4	(300,558)	(10.9)
Queens	566,133	6.1	531,153	5.5	(34,980)	(6.2)
Richmond	56,101	0.6	72,454	0.7	16,353	29.1
SUBURBAN RING TOTAL	**3,927,993**	**42.3**	**4,882,562**	**50.3**	**954,569**	**24.3**
Connecticut Sector Total	**762,693**	**8.2**	**914,220**	**9.4**	**151,527**	**19.9**
Fairfield	366,232	3.9	456,632	4.7	90,400	24.7
Litchfield	54,784	0.6	70,413	0.7	15,629	28.5
New Haven	341,677	3.7	387,175	4.0	45,498	13.3
New Jersey Sector Total	**1,507,430**	**16.2**	**1,937,181**	**20.0**	**429,751**	**28.5**
Bergen	384,905	4.1	472,000	4.9	87,095	22.6
Hunterdon	24,814	0.3	33,674	0.3	8,860	35.7
Mercer	153,756	1.7	182,533	1.9	28,777	18.7
Middlesex	238,262	2.6	320,193	3.3	81,931	34.4
Monmouth	159,792	1.7	210,039	2.2	50,247	31.4
Morris	145,836	1.6	217,451	2.2	71,615	49.1
Ocean	61,089	0.7	103,419	1.1	42,330	69.3
Passaic	211,493	2.3	216,869	2.2	5,376	2.5
Somerset	74,528	0.8	112,131	1.2	37,603	50.5
Sussex	21,601	0.2	32,179	0.3	10,578	49.0
Warren	31,354	0.3	36,693	0.4	5,339	17.0
New York Sector Total	**1,657,870**	**17.9**	**2,031,161**	**20.9**	**373,291**	**22.5**
Dutchess	96,889	1.0	116,369	1.2	19,480	20.1
Nassau	580,233	6.2	668,621	6.9	88,388	15.2
Orange	90,010	1.0	106,617	1.1	16,607	18.5
Putnam	12,585	0.1	17,769	0.2	5,184	41.2
Rockland	78,881	0.8	103,184	1.1	24,303	30.8
Suffolk	328,539	3.5	483,067	5.0	154,528	47.0
Sullivan	25,526	0.3	28,935	0.3	3,409	13.4
Ulster	52,415	0.6	61,876	0.6	9,461	18.1
Westchester	392,792	4.2	444,723	4.6	51,931	13.2

Source: US Bureau of Economic Analysis, Regional Economic Information System, 1969–1999

Table 4: Tri-State Region Total Employment Change by Metropolitan Sector and County, 1980–1990

	1980		1990		Change: 1980–1990	
	Number	Percent	Number	Percent	Number	Percent
TRI-STATE REGION TOTAL	**9,709,415**	**100.0%**	**11,139,867**	**100.0%**	**1,430,452**	**14.7%**
REGIONAL CORE TOTAL	**4,826,853**	**49.7**	**5,199,700**	**46.7**	**372,847**	**7.7**
New Jersey Sector Total	**1,006,069**	**10.4**	**1,039,279**	**9.3**	**33,210**	**3.3**
Essex	444,734	4.6	459,803	4.1	15,069	3.4
Hudson	259,387	2.7	282,366	2.5	22,979	8.9
Union	301,948	3.1	297,110	2.7	(4,838)	(1.6)
New York Sector Total	**3,820,784**	**39.4**	**4,160,421**	**37.3**	**339,637**	**8.9**
Bronx	229,736	2.4	258,204	2.3	28,468	12.4
Kings	522,712	5.4	542,957	4.9	20,245	3.9
New York (Manhattan)	2,464,729	25.4	2,658,710	23.9	193,981	7.9
Queens	531,153	5.5	602,694	5.4	71,541	13.5
Richmond	72,454	0.7	97,856	0.9	25,402	35.1
SUBURBAN RING TOTAL	**4,882,562**	**50.3**	**5,940,167**	**53.3**	**1,057,605**	**21.7**
Connecticut Sector Total	**914,220**	**9.4**	**1,060,427**	**9.5**	**146,207**	**16.0**
Fairfield	456,632	4.7	526,181	4.7	69,549	15.2
Litchfield	70,413	0.7	85,489	0.8	15,076	21.4
New Haven	387,175	4.0	448,757	4.0	61,582	15.9
New Jersey Sector Total	**1,937,181**	**20.0**	**2,452,154**	**22.0**	**514,973**	**26.6**
Bergen	472,000	4.9	549,604	4.9	77,604	16.4
Hunterdon	33,674	0.3	54,281	0.5	20,607	61.2
Mercer	182,533	1.9	221,521	2.0	38,988	21.4
Middlesex	320,193	3.3	415,660	3.7	95,467	29.8
Monmouth	210,039	2.2	277,627	2.5	67,588	32.2
Morris	217,451	2.2	296,213	2.7	78,762	36.2
Ocean	103,419	1.1	153,127	1.4	49,708	48.1
Passaic	216,869	2.2	229,589	2.1	12,720	5.9
Somerset	112,131	1.2	166,382	1.5	54,251	48.4
Sussex	32,179	0.3	45,463	0.4	13,284	41.3
Warren	36,693	0.4	42,687	0.4	5,994	16.3
New York Sector Total	**2,031,161**	**20.9**	**2,427,586**	**21.8**	**396,425**	**19.5**
Dutchess	116,369	1.2	142,726	1.3	26,357	22.6
Nassau	668,621	6.9	745,646	6.7	77,025	11.5
Orange	106,617	1.1	138,975	1.2	32,358	30.3
Putnam	17,769	0.2	26,541	0.2	8,772	49.4
Rockland	103,184	1.1	125,764	1.1	22,580	21.9
Suffolk	483,067	5.0	632,641	5.7	149,574	31.0
Sullivan	28,935	0.3	32,135	0.3	3,200	11.1
Ulster	61,876	0.6	77,975	0.7	16,099	26.0
Westchester	444,723	4.6	505,183	4.5	60,460	13.6

Source: US Bureau of Economic Analysis, Regional Economic Information System, 1969–1999

foreign capital, a long running "bull market," and increased trading in capital markets resulting in this somewhat unexpected turnaround in the region's core (Schwartz 1992). The overall employment base of core counties increased by 7.7% or 372,847 jobs with Manhattan capturing more than half of these gains. Nonetheless, this increase was not sufficient to halt the core's loss of regional employment share, which fell from 49.7% in 1980 to 46.7 percent in 1990. But it did represent a slowing in its loss of regional share compared to the 1970s.

The 1990s saw the tri-state region's economic growth retreat to levels far below that of the 1980s. This was mainly due to a very severe three-year-long regional recession (1989 to 1992) that quickly erased a significant portion (over 550,000 jobs) of the 1980s' employment gains.[3] As a result of these early losses, the region only gained 689,440 jobs (6.2%) between 1990 and 1999 (Table 5). Again, it was the suburban ring that stood as the regional leader, adding 505,451 jobs (8.5%). But the regional core also registered positive employment gains, adding 183,989 jobs (3.5%), and the differential growth rates between core and ring continued to narrow. And, while the regional core's share of total regional employment continued to contract—from 46.7% in 1990 to 45.5% in 1999—it was the smallest loss of share of the three periods under analysis.

So as the 20th century was coming to a close, the forces of decentralization were still operative in the region. However, the economy of the core was experiencing its best relative performance in four decades. From the bottom of the recession (1992) to 1999, the regional core's employment grew by 8.6%. At the same time, employment in the suburban ring grew only slightly faster (11.4%).[4] This growth differential was the narrowest in the post-World War II era, but it still did not reverse the suburban ring's sustained gain in critical economic mass during the 1990s.

Offices and the Future That Once Was

These changing eras in employment decentralization were reflected in shifting office market dynamics. Offices can be viewed as the factory floor of the new information-age economy. Thus, the shifting location of the region's office inventory is a potent indicator of the geographic preference of leading-edge economic activities. Whereas office-based activities had remained firmly entrenched in the regional core through the 1960s and 1970s, lower rent levels in the suburban perimeter, ample parking, and easy access to suburban office workers began to loosen the grip of central cities. Consequently, suburban office parks started sprouting up along highway growth corridors during the 1980s (Hughes and Sternlieb 1986; Hughes and Sternlieb 1988). Thus, the interstate highway system began to have maximum impact on office location decisions. The decade was one of unprecedented, often speculative, suburban-office growth, predicated on the new highway accessibility, "easy" real estate financing stemming from financial deregulation, and a maturing baby boom labor market desiring to work, as well as live, in suburbia.

The dramatic shift in the regional office inventory during the 1980s is presented in Table 6. At the beginning of the decade, the tri-state region's office stock was still overwhelmingly concentrated in Manhattan—which contained two conventional high-density central business districts (CBDs) located within a few miles of one another—Midtown and Downtown. In fact, in 1980, fully 85% of the region's inventory was accounted for by Manhattan alone. By 1990, Manhattan's share of the regional office market fell to 56.4%, despite adding nearly 54 million square feet of space. In contrast, the New Jersey sector of the suburban ring alone added 88 million square feet of space, as it emerged as the fifth largest metropolitan office market in the country. Over 82% of all the office

Table 5: Tri-State Region Total Employment Change by Metropolitan Sector and County, 1990–1999

	1990		1999		Change: 1990–1999	
Number	**Percent**	**Number**	**Percent**	**Number**	**Percent**	
TRI-STATE REGION TOTAL	**11,139,867**	**100.0%**	**11,829,307**	**100.0%**	**689,440**	**6.2%**
REGIONAL CORE TOTAL	**5,199,700**	**46.7**	**5,383,689**	**45.5**	**183,989**	**3.5**
New Jersey Sector Total	**1,039,279**	**9.3**	**1,016,776**	**8.6**	**(22,503)**	**(2.2)**
Essex	459,803	4.1	444,572	3.8	(15,231)	(3.3)
Hudson	282,366	2.5	285,502	2.4	3,136	1.1
Union	297,110	2.7	286,702	2.4	(10,408)	(3.5)
New York Sector Total	**4,160,421**	**37.3**	**4,366,913**	**36.9**	**206,492**	**5.0**
Bronx	258,204	2.3	278,709	2.4	20,505	7.9
Kings	542,957	4.9	601,406	5.1	58,449	10.8
New York (Manhattan)	2,658,710	23.9	2,708,317	22.9	49,607	1.9
Queens	602,694	5.4	658,417	5.6	55,723	9.2
Richmond	97,856	0.9	120,064	1.0	22,208	22.7
SUBURBAN RING TOTAL	**5,940,167**	**53.3**	**6,445,618**	**54.5**	**505,451**	**8.5**
Connecticut Sector Total	**1,060,427**	**9.5**	**1,127,304**	**9.5**	**66,877**	**6.3**
Fairfield	526,181	4.7	565,534	4.8	39,353	7.5
Litchfield	85,489	0.8	94,185	0.8	8,696	10.2
New Haven	448,757	4.0	467,585	4.0	18,828	4.2
New Jersey Sector Total	**2,452,154**	**22.0**	**2,717,232**	**23.0**	**265,078**	**10.8**
Bergen	549,604	4.9	575,662	4.9	26,058	4.7
Hunterdon	54,281	0.5	65,603	0.6	11,322	20.9
Mercer	221,521	2.0	237,204	2.0	15,683	7.1
Middlesex	415,660	3.7	470,935	4.0	55,275	13.3
Monmouth	277,627	2.5	314,011	2.7	36,384	13.1
Morris	296,213	2.7	345,894	2.9	49,681	16.8
Ocean	153,127	1.4	179,091	1.5	25,964	17.0
Passaic	229,589	2.1	221,951	1.9	(7,638)	(3.3)
Somerset	166,382	1.5	207,649	1.8	41,267	24.8
Sussex	45,463	0.4	53,511	0.5	8,048	17.7
Warren	42,687	0.4	45,721	0.4	3,034	7.1
New York Sector Total	**2,427,586**	**21.8**	**2,601,082**	**22.0**	**173,496**	**7.1**
Dutchess	142,726	1.3	140,358	1.2	(2,368)	(1.7)
Nassau	745,646	6.7	766,660	6.5	21,014	2.8
Orange	138,975	1.2	157,471	1.3	18,496	13.3
Putnam	26,541	0.2	32,986	0.3	6,445	24.3
Rockland	125,764	1.1	137,870	1.2	12,106	9.6
Suffolk	632,641	5.7	723,618	6.1	90,977	14.4
Sullivan	32,135	0.3	32,500	0.3	365	1.1
Ulster	77,975	0.7	83,359	0.7	5,384	6.9
Westchester	505,183	4.5	526,260	4.4	21,077	4.2

Source: US Bureau of Economic Analysis, Regional Economic Information System, 1969–1999

Table 6: Tri-State Region: Change in Total Office Inventory by Metropolitan Sector, 1980–1990

			Percent Distribution		Percent Built
	1980	1990	1980	1990	1980–1990
TRI-STATE REGION TOTAL	**352.1**	**625.7**	**100.0%**	**100.0%**	**43.7%**
REGIONAL CORE TOTAL	**305.5**	**406.5**	**86.8**	**65.0**	**24.8**
New Jersey Sector Total	6.3	39.2	1.8	6.3	83.9
New York Sector Total	299.2	367.3	85.0	58.7	18.5
New York (Manhattan)	299.2	353.0	85.0	56.4	15.2
SUBURBAN RING TOTAL	**46.6**	**219.2**	**13.2**	**35.0**	**78.7**
Connecticut Sector Total	8.3	38.6	2.4	6.2	78.5
New Jersey Sector Total	18.9	107.0	5.4	17.1	82.3
New York Sector Total	19.4	73.6	5.5	11.8	73.6

Source: Hughes, Miller and Lang, 1992: 75

space ever built in the history of the New Jersey suburban ring went up in the 1980s, compared to only 15.2% in Manhattan.

But the boom years of the 1980s came crashing to an end with the bursting of an unprecedented real estate bubble in the tri-state region. An "over-built," "over-leveraged," and "under-leased" market collapsed. There were two important after-effects that helped slow decentralization in the 1990s. First, following the bust was a much more conservative and market-disciplined lending environment, which limited market excesses and constrained new office construction throughout the 1990s. Second, there was a massive office development overhang that had to be worked off before new office construction could commence.

In addition, the sheer scale of suburban development in the1980s spawned no-growth and smart-growth sentiments. These sentiments multiplied during the post-recession 1990s when empty offices filled rapidly, greatly intensifying suburban traffic congestion. Thus, a major force constraining further deconcentration in the Tri-State region was the growing potency in suburban and exurban areas of antigrowth convictions, centered on the increasing desire to preserve farmland and open space, and to minimize the growth of traffic congestion. Thus, the difficulty of securing new greenfield development sites increased substantially, and suggested that decentralization would slow further in the decade ahead in the absence of September 11. In addition, growing suburban and exurban resistance to new transportation and other infrastructure added another constraint to regional decentralization. Moreover, the emergence of new brownfields programs began to provide attractive centralized alternatives to the office-development community.

However, resistance to unfettered growth and infrastructure improvements would not likely have led to a major re-centralization of employment. An era of capacity constraints appeared to be unfolding, not limited to highway infrastructure. Centralized employment in Manhattan, for example, depends heavily on suburban labor markets. But public rail access to Manhattan also began to reach its capacity limits even before the tragic events of September 11.

Immediate Commercial Real Estate Impact of September 11

The destruction of the World Trade Center buildings by the terrorist attacks directly eliminated 13.4 million square feet of office space from the downtown market and damaged 16.6 million square feet of office space located on the perimeter of the World Trade Center (Holusha 2001: 11:1). Thus, approximately 30 million square feet of space were rendered unavailable, more than one-third of the Lower Manhattan office market. While precise estimates are not available, this translates into roughly 100,000 displaced office jobs. This precipitated a frenzied search for office space that could immediately be occupied to sustain operational continuity and led to the expectation of massive suburban shifts and extensive economic deconcentration.

However, this prospect lasted for little more than a week. The market then slowed abruptly, as the prime "ready-to-go" or "plug and play" replacement space was quickly consumed. In addition, firms that were not forced to make decisions were able to postpone them. Their rationale was to buy time and avoid making long-term commitments with long-term consequences until economic market conditions became clearer. In addition, direct replacement space needs were significantly reduced below the level of that rendered unavailable by the terrorist attacks. The reasons for this include larger than expected corporate layoffs, greatly expanded use of telecommuting, and the temporary bivouacking of employees at previously established business-continuity sites. Another reason that massive and immediate decentralization did not occur was linked to office market conditions that had shifted dramatically during 2001.

National and Regional Market Conditions

After several robust years, national office and commercial real estate markets slowed during 2001 and 2002. This slowdown differed from past short-term setbacks. Office vacancy rates started to rise and market rents began to fall much earlier than September 11. The first new-millennium office glut rose from factors quite different from those underlying the massive office downturn of 1989–1993. The latter experienced rising vacancy rates because of massive overbuilding that was driven by undisciplined lending practices. In contrast, the expansion of the office inventory in the post-recession 1990s was much more disciplined and constrained, with lenders much more conservative. With a robust economy spurring office demand in the face of supply limitations, tenant concerns centered about limited office inventories. Perhaps reflecting the "irrational exuberance" noted by Alan Greenspan, corporations assumed continued economic growth even as the expansion approached record lengths. Not wanting to be locked out, this often translated into "over-leasing," based on overly optimistic expectations of future growth.

But the rapid 2001 economic slowdown and plunging profits forced corporations to put excess office space back on the market in unprecedented scale. Thus, demand fell at an accelerating pace through the year. As a result, negative absorption, or a decrease in the aggregate office space leased compared to a year earlier, occurred for the first time.

A similar pattern prevailed in New York City and the region. The broad national slowdown, layoffs and personnel reductions at financial services and related companies due to the after-effects of the stock-market correction, and the severe problems of "dot-coms" and "tele-coms" pushed the regional 2001 real estate market down significantly before September 11. Thus, the region's office market softened in parallel with the nation. As a result, even after more than 30% of the downtown office supply was either destroyed or temporarily removed from the inventory because of September 11,

the overall office market did not tighten because of the flood of sublease space that immediately materialized, particularly in Midtown Manhattan.

The quick emergence of Midtown space probably forestalled some decisions to decentralize because it provided an immediate option that produced minimum commutation hardship. For example, even if a displaced Lower Manhattan firm relied heavily on suburban New Jersey personnel, a move to a suburban New Jersey location would be relatively inaccessible for non-New Jersey workers. A commute from Connecticut or Long Island to suburban New Jersey could be so onerous as to cause significant personnel losses. Thus, Midtown Manhattan, the most accessible location via public transit from all parts of the region, turned out to be the minimum disruption solution. As a result, at this point, Midtown Manhattan appears to have gained the largest share of firms displaced by September 11. Whether this is a short-term solution while long-term decisions are still being crafted remains to be seen. But new locational criteria did emanate from the terrorist attacks.

A Potential New Post-Disaster Corporate Location Paradigm

The traumatic human losses of September 11 and the sheer disruption to corporate operations have led to discussions on the possible emergence of a new post-disaster corporate location paradigm for the region's financial services firms. This new model rests on the avoidance of excessive concentration of human and physical resources. The old model, which had gained some prominence in New York by large financial firms during the 1990s, was the urban corporate campus, where a firm's offices and its most advanced and complex functions would be concentrated in buildings in close proximity to each another.

The new paradigm would replace such concentration with a regional decentralized framework. This does not simply imply the dispersion of back-office functions, a process that has been ongoing for decades. Rather, a firm's higher-level activities would also be segmented and placed at multiple locations in a region, with each site located on different power and communication grids. This is obviously a different strategy of place, one of distributed workplaces to ensure the possibility of business continuity in the case of a major disaster. Providing the connectivity for day-to-day, nonemergency operations would be increasingly sophisticated information technology and communications systems. But in the case of major emergencies, each of these dispersed sites could also serve as a backup for any others that might be disabled.

So, breaking a firm into spatially-separated multiple blocks may emerge as the post-September 11 locational paradigm. Certainly, the danger of human resources concentration and an overreliance on a common telecommunications and power infrastructure in the face of a disaster is now evident. "Y2K" preparedness focused on technology resource protection; the tragic events that took place during "Y2K+1" ushered in a new preparedness based on human resources protection.

A strategy of distributed workplaces obviously stands as a force of regional decentralization. And there is already evidence of it taking place. As reported by the *New York Times* in January 2002, three specific moves represented "the latest developments in a corporate world in which dispersing workers became the order of the day after the attack on the World Trade Center in September" (Bagli 2002a). Morgan Stanley Dean Witter, the largest securities company in Manhattan and formerly the World Trade Center's largest tenant, announced the furthest shift. Morgan Stanley agreed to buy Texaco's former headquarters in Harrison in Westchester County, New York, a 725,000-square-foot

office building situated on 107 acres (Wells and Burgess 2002). The company had been planning to concentrate its operations in an urban corporate campus in Midtown Manhattan, where it had been building a 32-story structure two blocks away from its Midtown headquarters on Times Square (ibid.). But in October 2001, it sold this structure to Lehman Brothers, a brokerage firm displaced from the destruction in Lower Manhattan, indicating an early retreat from its corporate campus strategy. This retreat gained momentum on January 28, 2002, when it announced the agreement to purchase the Texaco headquarters, located on the suburban periphery, because of "business continuity planning requirements" (Bagli 2002a). Morgan Stanley will still keep a significant presence in Midtown, but it did not want its trading and backup facilities to be on a single block in Manhattan.

The *New York Times* also reported on January 29, 2002, that "Goldman Sachs & Company, a major corporate presence in Lower Manhattan, is planning to move its entire equity trading department to Jersey City, to the $1 billion complex it is building, which includes the tallest skyscraper in New Jersey" (Bagli 2002a). Goldman Sachs is still keeping its headquarters downtown in Lower Manhattan. But it is changing its urban campus strategy, which it had pursued vigorously in the 1990s, to a strategy of reducing the firm's concentration in Lower Manhattan (Wells and Burgess 2002). Originally, the Jersey City complex, across the Hudson River from Lower Manhattan, was to house a training center and a backup trading floor. But the most recent decision shifts all New York-based equities and equities-related employees to Jersey City. These are important moneymaking divisions, accounting for significantly higher-level jobs, and they will be located on different power and telecommunication grids from corporate headquarters.

A third example of a distributed workplaces model is Marsh & McLennan, a large insurance and financial services firm displaced by the destruction of the World Trade Center, which will shift approximately 2,000 employees to a new office building across the Hudson River in Hoboken (Bagli 2002a). While maintaining a significant presence in Manhattan, Marsh & McLennan's decision likewise reflects the desire to minimize the vulnerability and exposure emanating from overconcentration.

These three examples indicate the acceptance of the new locational imperatives following September 11. However, dispersion is a potentially costly location strategy, which may well constrain its implementation. Redundant sites translate into multiple costs, which may simply be too burdensome in the short term, particularly in the recession- or profit-constrained environments characteristic of 2002. This is particularly the case if a firm already owns space, or has long-term lease commitments for spaces that they would vacate in order to implement a distributed workplace strategy. It may be too costly to be saddled with redundant space that requires operating costs and rental or mortgage payments. In a tight market, successful subleasing would obviate this concern. However, with significant layoffs in the financial industry and rising vacancy rates downtown, the ability to sublease is dubious. The decision of American Express, announced on February 28, 2002, to move employees back to the World Financial Center in Lower Manhattan reflects this economic constraint (Blair 2002). Even though it will maintain on-line backup suburban facilities, it is probably centralizing most operations because of its direct ownership of the World Financial Center building. Thus, the absolute costs of redundancy, as well as stationary or mobility-restricting effects of existing leasing commitments or building ownership, may restrict the short-term effects of this new locational paradigm. But in the longer term, it will probably have a discernable decentralization effect.

The New Vulnerability

New York and other cities thrived during the 1990s because the idea took hold that they were safe again. Certainly, the decline in crime during the decade was instrumental in this basic transformation. But a new vulnerability was revealed on September 11. What is the long-term impact on central places if people do not feel safe? Obviously, a return of fear or heightened concern could unleash residential dispersion, undermining the central city population gains of the 1990s.[5]

Fear of being vulnerable also raises question of the future of high-profile, signature, trophy office buildings. In a post-September 11 world, these have been transformed into potential prime-target buildings. One nightmare plaguing smart-growth advocates would be the surging popularity of dispersed, anonymous, nondescript, standard interstate-issue, low-rise suburban office structures—the staple office product of suburban growth corridors. In any environment concerned with terrorist actions, bland and isolated offices may be seen as safe, far less-vulnerable offices. The signature office products of Manhattan—rarely replicated elsewhere in the United States—are the highly-expensive prestigious trophy buildings. Premium rentals paid to occupy risky environments represent very significant real-estate market problems.

The Questions of Cost Differentials and Insurance

The terrorist attack on New York City may well precipitate long-term changes in the real estate industry. The costs of both building security and insurance will inevitably experience long-term increases. Large, exposed high-rise office buildings may be particularly susceptible, especially in the case of insurance. While the insurance market is currently in flux, there are two major issues that stand to impact the intra-regional location of office buildings: the availability of adequate insurance coverage for terrorist acts and the rising costs of insurance in a post-September 11 world.

Certainly the lack of adequate terrorist insurance may hamper the availability of capital for office construction and refinancing, placing concentrated downtown office centers at a competitive disadvantage given their greater risk of terrorist exposure. Structures in larger cities in the United States, absent federal intervention, may find themselves unable to include acts of terrorism in their insurance coverage since they have higher risks of becoming a terrorist target compared to isolated and relatively anonymous dispersed suburban buildings. New York City would represent the extreme case of this problem. Even if insurance is available, cost differentials according to location and potential exposure may well enhance the overall cost advantage of dispersed office facilities. Indeed, insurers may have a very low tolerance for the risks attached to the high-profile signature buildings that define the uniqueness of centralized downtowns, particularly those of New York City. Both of these factors could stand as a new force for economic decentralization, as they would represent another cost advantage for dispersed suburban locations.

A Matrix of Countervailing Forces

Prior to September 11, the forces of regional employment decentralization were still operative, but weakening compared to the furious pace set in the 1970s and 1980s. The tendency for select large financial institutions to create centralized corporate campuses in the region's core emerged as a major factor in constraining some dispersion as the 1990s matured. But, given the events of September 11, new locational imperatives materialized, reflecting the need to disperse because of business-continuity requirements.

Dispersion can have several dimensions. It

obviously could entail vast geographic distances across the suburban ring, or it could involve multiple sites dispersed within the regional core. For example, Midtown Manhattan and Jersey City would appear to be net beneficiaries, thus strengthening these parts of the regional core. At the same time, counties on the regional edge could benefit, such as Mercer County in New Jersey, which contains two large and growing Merrill Lynch facilities. Moreover, if dispersion does entail a wide geographic spread, it is possible that segments of it could take place in a multi-nodal format. With anti-greenfield and pro-brownfield sentiments intensifying, the region's sub-cities offer viable development alternatives, particularly those that have strong rail transit linkages to Manhattan.

Whatever the case, it is difficult to envision Lower Manhattan not being negatively impacted if corporations pursue distributed workplace strategies. This certainly doesn't imply the demise of Lower Manhattan, but suggests its regional share of economic activity will continue to decline. And the longer the amount of time that it takes to rebuild the public transportation infrastructure at the World Trade Center site, the greater the accessibility disadvantage of Lower Manhattan.

In addition, in the post-recession world of the 2000s, profit-constrained corporations will have to look to strict cost-control measures to ensure bottom-line results. These will focus not only on personnel costs but on overhead expenditures as well. As such, real estate outlays will come under constant scrutiny, giving advantage to cheaper suburban locations.

But a number of countervailing forces remain uncertain. Federal reconstruction aid and state and city financial incentives are being targeted to the rebuilding of Lower Manhattan (Bagli 2002b; Starkman 2002). This and other targeted subsidies could very well forestall some of the tendencies toward decentralization. Similarly, federal intervention in the terrorist insurance market, a great uncertainty as of this writing, could minimize the potential highly negative ramifications of the availability and cost for the core's centralized real estate.

Moreover, anti-sprawl efforts throughout the region will remain in force, and make a return to the developmental patterns of the 1980s highly unlikely. Nonetheless, the region's vast office inventory will provide many options for decentralization, given the scale of vacancies that currently exist. And there are still numerous opportunities for new construction even in the face of anti-growth sentiments. These opportunities will be more concentrated in existing growth corridors and growth nodes in the region, not in undeveloped areas at the metropolitan edge.

The most likely long-term geographic impact of September 11 on the tri-state region is a general increase in decentralization, a strengthening of Midtown Manhattan and select inlying nodes such as Jersey City, and a loss of relative economic importance of Downtown Manhattan. This will result in increased pressures on an already inadequate regional transportation infrastructure. The regional lament is that the suburban and exurban sprawl of the 1980s and 1990s has now fully yielded suburban and exurban crawl. Chronic sustained creeping congestion has become the nightmare of the decentralized economy. The new congestion scene—the frontier of congestion—comprises overloaded networks of two-lane local and county roads that feed into the region's growth corridors and growth nodes. The new congestion appears to be an intractable problem since there is no other realistic option to private vehicles on the suburban periphery. Thus, it is a far more difficult problem to untangle than old-fashioned highway or freeway backups. And it is a congestion problem that has increased at least as fast as congestion on the region's freeway nets. This problem will intensify as decentralization continues in a post-September 11 world.

Endnotes

1. The RPA definition of the tri-state region differs slightly from the US Census Bureau's New York-Northern New Jersey-Long Island, NY-NJ-CT-PA CMSA.

2. The authors calculated this growth rate, which is not included in the tables, from data provided by the US Bureau of Economic Analysis.

3. This figure is not included in the tables.

4. These figures are not included in the tables.

5. See Birch (2002) and Simmons and Lang (2001) for central city population gains achieved in the 1990s.

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