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Center on Urban & Metropolitan Policy

Office Sprawl: The Evolving Geography of Business

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Findings

An analysis of the location of office space in 13 of the nation's largest metropolitan commercial real estate markets between 1979 and 1999 found that:

- Between 1979 and 1999, cities' share of metropolitan office space significantly diminished. In 1979, 74 percent of office space was found in central cities and only 26 percent was found in suburbs. By 1999, the central city share of office space dropped to 58 percent while the suburban share grew to 42 percent.
- The distribution of urban and suburban office space varies greatly among metropolitan areas. There are five metropolitan areas where the majority of the metropolitan office space is found within the core central city (Houston, Dallas, Chicago, New York, and Denver) and five metropolitan areas with the majority of space in the suburbs (Philadelphia, Atlanta, Washington, DC, Miami, and Detroit). In three metropolitan areas

(Boston, San Francisco, and Los Angeles), there is roughly even division.

- Metropolitan commercial office space is no longer found within a few high density clusters. While 38 percent of all office space in 1999 was located in a metropolitan area's traditional downtown, nearly the same amount (37 percent) was found in highly dispersed, "edgeless" locations lacking well-defined boundaries and extending over tens if not hundreds of square miles of urban space.
- In 1999, New York and Chicago were the only metropolitan areas with the majority of office space located in their primary downtown. Philadelphia and Miami already have more than half their office space in "edgeless" locations.

I. Introduction

The last two decades have witnessed remarkable change in the location of office employment. The suburbs, which began the post-war years as clear commercial subordinates to central cities, ended the century at near parity. What the 1920s did for downtowns, the 1980s did for suburban office areas—often in places that had little prior history of commercial development.

There are two primary reasons why office space trends are important. First, office space trends provide a good context for understanding metropolitan change because offices are





where a large percentage of job growth occurs. In some metropolitan areas, nearly half of all newly hired employees go to work in office buildings.² Office buildings were the last major element of central cities to suburbanize, following people and retail.

Second, the location of office space is critical to a number of public policy questions. For example, the distribution of new office space can help determine the extent to which there is a jobs/housing mismatch in a region. It can also influence the spatial mismatch between economic opportunity and minority households. Office location also impacts urban sprawl. If most new office space is constructed at the regional edge, it may extend commuter sheds for many miles into undeveloped rural areas and thereby fuel sprawl. Finally, the geography of office location figures prominently in transportation analysis. If most new space is built in areas with no public transit access, then reliance on automobiles will continue to grow. In sum, the spatial structure of metropolitan office space is a key regional indicator.

This study looks at the evolving geography of office space in 13 of the nation's largest commercial real estate markets, with emphasis placed on trends occurring since 1979. The metropolitan areas that are analyzed are found throughout the United States: six are in the Northeast and Midwest, and seven are in the South and the West. The study concludes with a discussion on the policy relevance of these findings.

II. Definitions and Methodology

A. Defining Central Cities and Suburbs

The terms "central city," "suburbs," and "metropolitan area" are used throughout this report. These terms are technically defined by the U.S. Bureau of the Census and are used as categories in data gathering. Central cities and suburbs form subsets of metropolitan areas. There remains no standard, universal criterion for what constitutes a suburb.3 Instead, a suburb is defined only in relation to a central city. Suburbs are those parts of metropolitan areas that are "outside central cities." Most major metropolitan areas contain several central cities, with all remaining municipalities grouped as suburban.4

The U.S. Census Bureau designates suburbs with growing concentrations of employment as central cites and this definition adds a good deal of office space to the central city total.5 Planned suburbs, such as Irvine, CA, south of Los Angeles, are identified as central cities, which complicates the comparison between city and suburban office development. Were it not for this definition shift, the central city share of the metropolitan market would have slipped even more dramatically. Yet when places such as Irvine, CA, and Irving, TX, become "central cities," the category loses some of its meaning.

If one adds up all the office space in America that exists in traditional highdensity settings, it is clearly a minority of the total. Sunbelt cities are essentially suburban in character (Atlanta, Dallas, Houston), as are even more of the non-core (or satellite) central cities. Counting them as cities gives a distorted impression of the significant trend in the nation's office economy, which seems to be a relentless march towards decentralization.

Most reports that compare office data between cities and suburbs use

the figures for central business districts (CBDs) versus non-CBDs. That means that the volume of downtown office space is weighed against the entire region. The result is usually a two-thirds, one-third split in favor of the non-CBD market.⁶ This study looks at all office space within central cities against the amount found in suburbs, hence the discrepancy between its figures and others.⁷

B. Data and Methods

Office market statistics are not collected by government agencies, but by a variety of real estate brokers, consulting firms, realty and building associations, and office guide publishers.8 The two major sources for office data are Black's Guide to Office *Leasing*, a directory of office space published in Gaithersburg, Maryland, and Cushman and Wakefield, the nation's largest multi-service commercial realtor. Black's Guide is the main source of data used in this report, while Cushman and Wakefield's office reports are used for Manhattan's inventory (which Black's Guide does not track) and for some national timeseries comparisons. These sources were selected because of their compatibility with one another and their suitability to the analysis. Black's *Guide* is the only national office data source where central city space can be separated from suburban space. No other national office survey lists buildings by address.9

Although most high-tech employment takes place in "traditional" office space, in a few markets with significant concentrations of high technology manufacturing (such as San Francisco), "flex space" captures a share of the commercial real estate market. Flex buildings contain a hybrid of office and manufacturing space. Because *Black's Guide* does not fully track flex space, much of San Francisco's and some of Los Angeles'

	Total Square Footage Pre-1979	Total Square Footage 1989	% Growth Total SF 1980–1989	Total Square Footage 1999	% Growth Total SF 1990–1999	% Growth Total SF 1979–1999
Central City	676,371,828	1,285,879,942	90%	1,565,718,590	22%	112%
Primary Central Cities	606,822,137	1,047,224,173	73%	1,268,172,093	21%	94%
Other Central Cities	69,549,691	238,655,769	243%	297,546,497	25%	268%
Suburbs	234,564,508	888,813,494	279 %	1,123,766,268	26%	305%
TOTAL	910,936,336	2,174,693,436	139%	2,689,484,858	24%	163%

Table 1: Growth in Metropolitan Office Space, 1979-1999*

* The thirteen metropolitan office markets are: Atlanta, Boston, Chicago, Dallas, Denver, Detroit,

Houston, Los Angeles, Miami, New York, Philadelphia, San Francisco, Washington, DC.

high-tech boom might not be captured in office statistics.

The data used in this study covers only existing inventory as of 1999. By tracking the year that each building was completed, we can get a rough estimate for the size of the commercial real estate market at any given time. However, buildings that existed before 1999 may have subsequently been converted to other use or been designated for demolition. In the case of most suburban office markets this is not really a problem because they are so new that few buildings have fallen out of the inventory. By contrast, much of the urban stock that was present in 1970, or even 1980, has become so dilapidated that rehabilitation has become infeasible. Still, almost all of the buildings added during the period analyzed here (1979-1999) remain occupied as office space. While there are limits to what a historical analysis of current inventory allows, it still provides important facts about building trends and evolving metropolitan growth patterns.

III. National Trends

merican suburbs dominated office space growth in the 1980s. Between 1979 and 1989, office space in the suburbs almost tripled (growing 279 percent) while central city office space grew by 90 percent (see Table 1). In the 1980s alone, almost half (47 percent) of the nation's current office space and over half (58 percent) of the suburban office space that exists today was built (see Figure 1).

About two-thirds of the nation's current office stock in the largest office markets was built since 1980. Almost four-fifths (79 percent) of the current suburban stock was added in the same period. After the 1980s, the pace of overall office construction fell 59 percent, while the pace of suburban building dropped 64 percent.

During the 1990s, central cities gained more total office space than suburbs, picking up 280 million square feet of office space, compared with 234 million square feet in the suburbs. Yet, suburbs gained office space at a faster rate: total office space in cities grew 22 percent while total office space in the suburbs grew 26 percent (see Table 1). Despite the fact that cities have recently been growing at roughly the same pace as the suburbs in office construction, their inventory could decline relative to the suburbs simply because of aging and obsolete structures. The building stock in cities is significantly older than suburbs, which puts cities at greater risk for losing total inventory. Many of the older office buildings in downtown office markets are now prime targets for reuse as housing, which means that some buildings will be converted.¹⁰



IV. Findings: Central City/Suburban Comparison

A. Between 1979 and 1999, Cities' Share of Metropolitan Office Space Significantly Declined.

While cities were clear winners in the competition for office employment before 1980, their dominance has significantly diminished. In 1979, 74 percent of office space was found in central cities, and only 26 percent was found in suburbs. By 1999, central city share of office space dropped to 58 percent while the suburban share grew to 42 percent

B



(see Figure 2). If we remove Manhattan from the central city totals, the office space gap between cities and suburbs closes to near parity.

Primary central cities (the core central cities for the region) are losing their share of metropolitan office space. In 1979, primary central cities contained two-thirds of total office space. Today, they account for less than half (47 percent) of total space. Other central cities (or satellite central cities) gained a modest share of metropolitan office space (from 7.6 percent in 1979 to 11.4 percent today). Were it not for the inclusion of satellite central cities in the central city office total, suburbs would now contain the majority of office space in metropolitan America.

B. The Majority of Office Space in Some Metropolitan Areas Is Found in the Suburbs, while other Areas Have the Majority of Space in Cities.

Table 2 shows that there is variation in the geographic distribution of metropolitan office inventories. There are five metropolitan areas where the majority of the metropolitan office space is found within the core central city and five metropolitan areas with the majority of space in the suburbs. Boston, San Francisco, and Los Angeles have the majority of office space within all central cities (core plus satellite central cities), although in each of these metropolitan areas the suburbs hold more office space than the core central city. In some metropolitan areas, satellite central cities contain a substantial amount of office space (San Francisco, Dallas, Los Angeles), while in other places they contain very little space.

David Rusk's (1993) elastic city concept, which links a city's ability to annex to continued economic health. certainly pertains to the location of office space. Houston, an elastic city, maintains 94 percent of its region's office space. Houston is a large, lowdensity city with many square miles of development that are suburbs in all but name. The region's central business district (CBD) is located within its borders, as are all major concentrations of non-CBD office space, such as the Post Oak/Uptown area. After Houston, Dallas (another elastic city) maintains the highest percentage of its region's office space. These two Texas Sunbelt boomtowns surpass traditional cities such as Chicago and New York in this measure.

Philadelphia and Detroit are two metropolitan areas where the majority of office space is found in the suburbs. Philadelphia's suburbs boomed in the 1980s, gaining almost 53 million square feet of office space. The boom helped give the suburbs the majority of office space in the metropolitan area. Over four-fifths (82 percent) of the current office space in Philadelphia's suburbs was built since 1980. During the 1980s, Detroit's suburbs added over 29 million square feet of office space to their current inventory. The city added less than 7 million feet. In fact, Detroit contains the lowest percentage (21 percent) of central city office space among the thirteen cities in this study. Conversely, Detroit's suburbs have the highest percentage of space for any region (70 percent).

But city size and elasticity do not fully account for office location. Los Angeles is a large city that has annexed many miles of suburbs and yet it contains less than a third of its metropolitan area's office space. By contrast, the modestly sized Boston has 39 percent of the office space in its region.

Metropolitan Area	Core Central City	Other Central City	Suburbs	Tota
Majority of Office Space in Core Central City				
Houston	93.4	0.4	6.2	100
Dallas	62.1	21.6	16.3	100
Chicago	57.3	2.1	40.5	100
New York	56.7	8.8	34.5	100
Denver	53.6	4.3	42.0	100
Majority of Office Space in All Central Cities				
(Core plus Other Central Cities)				
Boston	39.0	16.2	44.8	100
San Francisco	34.2	28.8	37.0	100
Los Angeles	32.7	18.8	48.5	100
Majority of Office Space in Suburbs				
Philadelphia	36.0	8.9	55.2	100
Atlanta	34.2	-	65.8	100
Washington	31.5	10.9	57.7	100
Miami	27.8	14.9	57.4	100
Detroit	21.2	9.3	69.5	100

Table 2: Typology of Metropolitan Areas by Office Space Distribution, 1999

Note: Some totals may not add to 100 percent due to rounding.

V. Findings: Core/Edgeless Comparison

A. Metropolitan Commercial Office Space Does Not Exist Solely Within a Few High Density Clusters.

Comparing the volume of office activity in cities and suburbs is just one method for understanding how office space is distributed across metropolitan areas. Another way is to look at the amount of office space that can be found in a metropolitan area's largest office clusters. The amount of office space that coalesces in large clusters influences a series of regional land use variables such as transportation, jobs/housing balances, and urban sprawl.

Table 3 examines metropolitan office space found in four categories of office clusters. Downtowns can be found throughout older parts of metropolitan areas. The "primary downtown," or Central Business District (CBD), lies at the center of the region and is the original site of significant commercial development. "Secondary downtowns" are the centers of major suburbs and commercial nodes within a central city that developed a relatively modest, though focused, commercial center early in the 20th century. Secondary downtowns are scaled-down, slightly less-dense versions of primary downtowns. They have their origin in the streetcar and early automobile era and as such support a large pedestrian presence.

Office decentralization in the past two decades has fueled the development of diverse office locations. In the early 1990s, the term "Edge City" was used to describe a cluster of at least 5 million square feet of office space, which one finds in places like Tysons Corner, outside of Washington, DC, or Post Oak, in Houston, TX.¹¹ But edge cities are only one kind of dispersed office development. In fact, in 1999 only Dallas had the majority of its office space in edge city locations (40.3 percent) and only 20 percent of all office space in the 13 metropolitan areas was located in edge cities (see Table 3).

While 38 percent of all office space in 1999 was located in a metropolitan area's primary downtown, or CBD, nearly the same amount (37 percent) was found in highly dispersed clusters featuring less than 5 million square feet of space. These small clusters of offices make up what could be called an "Edgeless City." These edgeless locations, as the term implies, lack a well-defined boundary or edge and can extend over tens if not hundreds of square miles of urban space.¹²

B. Most Metropolitan Areas Have the Majority of Office Space Located in Edgeless Cities.

In 1999, New York and Chicago were the only metropolitan areas where the majority of office space was found in

Metropolitan Area	% Office Space Within Primary Downtown (CBD)	% Office Space Within Secondary Downtowns	% Office Space Within Edge Cities	% Office Space Within Edgeless Locations	% Difference Between Primary Downtown and Edgeless
Core Dominated					
Chicago	53.9	-	19.5	26.6	27.3
New York	56.7	7.2	6.2	29.9	26.8
Balanced					
Boston	37.4	4.6	18.8	39.2	-1.8
Washington	28.6	12.5	27.1	31.8	-3.2
Denver	30.4	4.2	29.4	35.9	-5.4
Los Angeles	29.8	7.8	25.4	37.0	-7.2
San Francisco	33.9	8.8	13.9	43.4	-9.5
Dispersed					
Dallas	20.5	4.5	40.3	34.6	-14.1
Houston	23.0	-	37.9	39.1	-16.1
Atlanta	23.6	9.9	25.3	41.2	-17.7
Detroit	21.3	-	39.5	39.2	-17.9
Edgeless					
Philadelphia	34.2	3.2	8.9	53.6	-19.4
Miami	13.1	4.5	16.6	65.8	-52.7
Average	37.7	6.0	19.8	36.5	

Table 3: Typology of Metropolitan Areas by Core vs. Edgeless Office Space, 1999

Source: Black's Guide (New York's primary downtown figure comes from Cushman & Wakefield and the Real Estate Board of New York)

the area's primary downtown/CBD. Only these two "Core Dominated" metropolitan areas had more than 50 percent of their area's office space within the primary downtown, and they were the only areas in the survey with more space within their primary downtown than in their edgeless locations. Still, a significant amount of space in these two metropolitan areas could be found in edgeless locations (29.9 percent in New York and 26.6 percent in Chicago).

Five metropolitan areas (Boston, Washington, DC, Denver, Los Angeles, and San Francisco) had near parity between core and edgeless office space. However, all five of these "Balanced" areas had more office space in edgeless locations than in their primary downtown. Four "Dispersed" metropolitan areas (Dallas, Houston, Atlanta, and Detroit) show an even wider disparity between core and edgeless office space. While the city/suburban comparison showed Houston and Dallas with the highest percentage of total office space within their city boundaries, the core/edgeless comparison reveals that much of that space is scattered throughout low density locations.

While Philadelphia still has an average amount of space within its primary downtown, more than half of the metropolitan area's office space (53.6 percent) is already located within edgeless locations. Miami, the only other area with over half its office space in edgeless locations (65.8 percent), has the lowest amount of space within its primary downtown (13.1), which gives it by far the highest disparity between downtown and edgeless office space. Among the 13 metropolitan areas in this survey, these two "Edgeless" metropolitan areas are at the most advanced stage of decentralization.

VI. Policy Implications

o what does all this office data mean in terms of public policy? The data can be read different ways. However, it is reasonable to conclude that the survey supports those who expect metropolitan decentralization to continue. The study also contains important findings for people working on smart growth issues. Those looking to enact smart growth legislation should pay more



attention to existing metropolitan form and recognize that there is no one pattern of metropolitan development. If most office space exists in a few large clusters, then public transit may be improved. However, most regions are not growing in that direction. This reality will have to be accounted for if smart growth is to work.

Smart growth prescribes more mixed-use development, especially combining employment and housing. One often cited reason is the reduced commuting times that result when housing and jobs are located near each other. Yet commuting patterns across regions have grown so complicated that transportation engineers equipped with supercomputers have a hard time figuring them out. As the data indicate, a significant percentage of office employment has decamped from the regional core. People increasingly commute from dispersed locations to dispersed locations. Even the concept of well-defined suburban edge cities seems out of date, as metropolitan areas become post-polycentric or edgeless.

Urban historian Robert Fishman argues that, given America's radically decentralized urban form, the home is now the center of the metropolis.¹⁴ The main concern for most people is what jobs, services, friends, and fun can be easily reached from their home. To ensure the maximum opportunities in the regional job market, people must be flexible about where they are willing to work. If work is near the home, fine, but if not, many seem willing to make long commutes. In large regions, the chance that work is very near home, or that home and work are both near mass transit, is slim. We can build jobs and houses together, but many people will not work in the places near their home if they find better opportunity elsewhere. And chances are that there will be no public transit available to make such a journey.

Perhaps the office data's most direct policy relevance is for those who seek to build better suburbs, especially people looking to improve edge cities. Many metropolitan observers have been hoping that some day edge cities would grow up and become more like old downtowns.¹⁵ They could grow denser, be served by mass transit, gain some culture and eventually become true centers of the new metropolis.

Edge cities such as Tysons Corner and Post Oak functionally replicate some older downtowns. However, such places are also less common than one might assume. The Post Oaks and the Tysons Corners of the nation, despite their scale and visibility, may not represent the suburban future. Reporters love to cover them because they are among the few places in the suburbs where there is a "there, there"—not to mention the fact that they are flashy and easy to understand. However, the best evidence shows that business in suburbia is not accreting around a few major growth poles, but now disperses throughout metropolitan areas. Ironically, edge cities face the same land cost and congestion pressures as old downtowns, for they too are now central places. Perhaps edge cities are losing their edge.¹⁶ The new metropolitan form shows up less often in the Post Oaks and Tysons Corners than in the nameless office parks at nearly every exit off the beltway. That is where most of the office space built outside of downtowns is now found.¹⁷ Those looking to build better suburbs should not ignore this fact.

Appendix A: Individual Metropolitan Area Profiles

The following is a summary of major office space trends in the 13 metropolitan markets. Specific listings of census-designated central cities as well as office space data from 1979–1999 for central cities and suburbs in each of the metropolitan areas are available on the Brookings Institution website at: <u>www.brookings.edu/urban</u>.

Atlanta. The Atlanta metropolitan area is unique in having only one census-designated central city. About a third (34 percent) of the area's office inventory is found in the city of Atlanta. The remaining percent of space that is found in Atlanta's suburbs represents the second highest percentage of suburban space of any metropolitan area in the survey. About a third of the city's current office building stock was built in the 1990s. Unlike many other places, Atlanta's rate of office construction slowed only slightly in the 1990s, dipping just 9 percent from the 1980s.

Boston. The Boston metropolitan area features 16 census-defined central cities, including the city of Boston. The presence of so many central cities lifts the total for central city office space to above half for the region. While the suburbs contain a minority share of space, they enjoyed strong growth in the 1980s and just surpassed the figure for central cities for the decade. Suburban office construction plummeted in the 1990s by two-thirds, while construction in the central cities dropped by about half.

Chicago. The central cities outside Chicago are minor players in the region's office economy. The city of Chicago accounts for 57 percent of office space in the metropolitan area. The vast majority of this space can be found in one large cluster, beginning in the Loop and running along the Magnificent Mile north of the Chicago River. This office cluster is the second largest in the United States, following Midtown Manhattan. Despite Chicago's dominance, much of the current office inventory in the metropolitan area was built in the suburbs during the past two decades. Almost 70 million square feet of current space was built in suburban Chicago since 1980.

Dallas. The city of Dallas contains a significant majority (62 percent) of its region's total office space. The central cities outside of Dallas capture an additional 23 percent of the metropolitan office space, the second highest total for all satellite central cities in the study. While on the surface Dallas looks to be a metropolitan area where cities are thriving, the problem is that the census definition of what constitutes cities gives a somewhat false impression. Places such as Arlington, Denton, and Irving are really suburbs. So are much of Dallas and Fort Worth. The actual office space found in the older, denser part of the metropolitan area is really quite modest, perhaps as little as 30 percent. Even most of the office space in Dallas proper lies outside its downtown in places such as the LBJ Freeway, which forms a long corridor of development stretching through the city's affluent northern neighborhoods. The few places that have office space outside of Dallas and its satellite cities managed to gain nearly a quarter of the office space added to the current inventory during the 1990s. Thus even in this metropolitan area of great suburban cities, the even more suburban places are gaining a substantial share of office space.

Denver. Denver's central city and suburban regional office space shares mimic the national averages, with 58 percent and 42 percent respectively. The city itself maintains more than half the region's office space, which includes the downtown and several large secondary clusters. However the region has only one satellite central city with any office space, and thus its non-core central city share is below average for the nation. The current office space within the central cities and the suburbs does not vary significantly by age. As a whole, about four-fifths of the region's office inventory dates from the past two decades. Denver boomed in the early 1980s, and savings and loans

invested heavily in office construction. Denver was then hit hard by recession in the late 1980s. The overbuilding during the 1980s gave the region a large excess inventory as it entered the 1990s. The region experienced a sharp three-quarters drop in office construction during the 1990s based on a historical analysis of current stock. The slowdown affected all parts of the region similarly. In many ways, the office development trends within Denver's central cities differ little from its suburbs.

Detroit. The Detroit metropolitan area suffered the smallest bust in the 1990s of any metropolitan area in the study. This is in part due to the fact that Detroit experienced the smallest boom during the 1980s. Construction activity varied widely across metropolitan Detroit during the past two decades—the city languished while the suburbs gained. During the 1980s, Detroit's suburbs added over 29 million square feet of office space to their current inventory. The city added less than 7 million feet. In fact, Detroit contains the lowest percentage (21 percent) of central city office space among the thirteen cities in this study. Conversely, Detroit's suburbs have the highest percentage of space for any region (70 percent). The space in Detroit's suburbs is also remarkably new. About 86 percent of all existing suburban office space has been built since 1980. Much of the space was added to two large suburban clusters, Troy and Southfield, the latter of which is now bigger than downtown Detroit. Detroit is the only central city in the study that is surpassed in size by a single suburban office cluster.

Houston. Houston totally dominates the office market in its metropolitan area. Because of Houston's dominance, its satellite central cities and suburbs both contain a smaller percentage of regional space than the satellite central cities and suburbs in any of the other metropolitan areas in the study. Thus, the city, through annexation, in many ways is the entire metropolitan area. The interesting story for Houston is how office space is arranged within the city. The downtown contains less than a quarter of the metropolitan area's office



market. The rest of the city's space is divided between large clusters, such as the Post Oak area, and scatter-site developments. The metropolitan area suffered a tremendous bust in the mid 1980s due to collapsing energy prices (the energy industry is heavily concentrated, both sectorally and with regard to office space, within the city.) The city took many years to recover economically to the point where it could absorb excess office inventory. Therefore very little space was built in the 1990s compared to the prior decade.

Los Angeles. Los Angeles is a complicated metropolitan area. The central cities outside Los Angeles are numerous and quite substantial in terms of office space. For example, Irvine (a planned suburb that is now defined as a central city) contains an enormous amount of space and would be a good-sized core central city in most metropolitan areas. Older centers such as Santa Monica, Long Beach, and Pasadena also have relatively large office markets. The city of Los Angeles has a large downtown, but much of its office space is arrayed along a spine of development running the length of Wilshire Boulevard. Despite Los Angeles being a large city with many centers and the presence of large satellite central cities, the suburbs contain nearly half the metropolitan area's total office space, the vast majority of which was added since 1980. This indicates that office development in the area is scattered in a way that fits no existing urban spatial model. In addition, Los Angeles has a significant amount of non-office employment, which includes many workers in the entertainment industry and those who work from home as subcontractors, making the metropolitan area's employment even more dispersed.

Miami. The Miami region has two relatively large office markets, Miami and Fort Lauderdale, which along with smaller Miami Beach contain about 43 percent of the metropolitan area's office space. Miami itself contains just 28 percent of the area's office space, giving it the second lowest regional share for the metropolitan areas in this study. Miami's suburbs contain a

majority of the metropolitan area's existing space and their inventory is also newer. The suburban space is scattered in a way that resembles a miniature version of Los Angeles. Little of the space is found in clusters above five million square feet, the minimum to be considered an edge city.

New York. The Big Apple is certainly big. It has twice as much office space as the next largest market. The metropolitan area also maintains the nation's oldest office stock. much of which is located in Manhattan. Metropolitan New York features many large satellite central cities. Places such as Newark, NJ, and Stamford, CT, have large office markets that are nonetheless dwarfed by New York City's. The city's office space is divided between two very large clusters, Midtown Manhattan and Lower Manhattan, which constitute the first and third largest concentrations in the nation. Despite the dominance of both Manhattan and its satellite cities, New York's suburbs, especially in Northern New Jersey, have been thriving. Taken together, these suburbs are the third largest office market in the nation. The space here is also newer than New York's. About 60 percent of the suburban stock was built in the 1980s alone. The vast majority of New York's suburban stock lies in clusters smaller than edge cities, in areas that have been labeled edgeless cities.

Philadelphia. Philadelphia's suburbs boomed in the 1980s, gaining almost 53 million square feet of office space. The boom helped give the suburbs the majority of office space in the metropolitan area. Over four-fifths (82 percent) of the current office space in Philadelphia's suburbs was built since 1980. The city of Philadelphia significantly lagged the suburbs during the 1980s, despite the fact that the city finally lifted an informal height restriction on building. Wilmington, DE, (a center for credit card headquarters) performed the best of the satellite cities in the region, accounting for most of the nine million square feet added in the 1980s.

San Francisco. Metropolitan San Francisco contains several large urban commercial centers. The cities of San Francisco, San Jose and Oakland all have large office markets. In addition, the Silicon Valley satellite central cities of Sunnyvale, Santa Clara, and Palo Alto also contain a good deal of office space. The 29 percent metropolitan share maintained by San Francisco's non-core central cities is the highest percentage in the nation and rivals the central city's 34 percent figure. The San Francisco metropolitan area experienced one of the steepest declines in office growth rates during the 1990s, dropping almost 80 percent from the 1980s development pace. Three key factors explain this fall off. The first is that the national recession of the early 1990s lasted a bit longer in California. The second is that office space in the city of San Francisco was quite overbuilt in the 1980s, and new space was in little demand during the 1990s; consolidations in the banking industry resulted in the loss of headquarters facilities for two major downtown banks. Finally, office growth here is not as important an indicator of the economy as it is in other metropolitan areas. Metropolitan San Francisco's major industry is high-tech. Much of that is housed in what are known as "flex" buildings, which contain a hybrid of office and manufacturing space. Flex buildings are also important in Los Angeles, although less so than San Francisco.

Washington, DC. Metropolitan Washington has the nation's third largest office economy, just barely behind Los Angeles and well ahead of Chicago. The size of this market is especially interesting given that Black's Guide excludes government offices. The city of Washington, DC maintains almost a third of the metropolitan area's office space (32 percent), while Arlington (Virginia) contains another 10 percent. While the region's central cities have a substantial amount of space, Washington's suburbs exploded with office development in the 1980s, adding over 100 million square feet. The 1980s boom helped make Washington's suburbs the second largest suburban market in the nation.



Appendix B: Office Data Methods

Black's Guide is a listing of multi-tenanted rental office buildings of 15,000 square feet or more that are identified as either existing, under construction, or proposed. Inventory data, by which total market size is determined, includes buildings under construction at the time of the survey but not those proposed, even if a starting date is given. Buildings are listed in the publication at no cost to owners or developers, and the guide is distributed free to companies and institutions involved in the office-leasing process. Black's primary source of revenue is display advertising.

The Black's Guide data for this survey was gathered only in 1999.¹⁹ Before the mid 1990s, Black's Guide only surveyed a handful of major markets. It would have therefore been impossible to gather data for all the cities in this report at different time intervals-for example; there was no Black's Guide for Detroit or Denver in 1980 that listed the then-current office inventory. However, Black's Guide does include the "year built" for almost every building in its survey. This allows for a historical analysis of the existing inventory. By knowing the year a particular building was completed, the age of current office space can be determined.

Cushman and Wakefield's survey of office buildings is based on a two-tier market categorization. A distinction is made between Class A space, or the primary market, and Class B offices, the secondary market. Class A buildings generally have 200,000 or more rentable square feet, are professionally managed, have prime locations and command higher rents. Class B offices are of any size, even as small as 15,000 square feet. Further, they are not located in prime areas and have moderate rents.

Like *Black's Guide*, Cushman and Wakefield surveys only multi-tenanted offices. Inventory calculations additionally exclude owner-occupied buildings, government and medical facilities, and proposed projects. Buildings under construction are included if they have a certificate of occupancy as of November 15 of the year they are reported.

Included in both *Black's Guide's* and Cushman and Wakefield's survey of rental offices are buildings that are owner-occupied, but partially leased out to other companies. In such instances, the entire building, not just the leased portion, is factored into the inventory for rentaloffice space.

The decision to use only rental building data in this report was necessitated by the fact that there are no comprehensive office reports that survey owner-occupied structures. Because the commercial real estate firms that follow the office market are primarily concerned with brokering leases, the only buildings they need to survey are rental structures. There is just not much of a market for reports that track owneroccupied inventory.

In reports that survey all buildings, including exclusively owner-occupied ones, rental structures are found to comprise a much larger share of the total market and are being constructed at a faster rate. Further, owner-occupied inventory can actually decline as companies that once used their buildings on a solely proprietary basis offer even a small portion of their space for lease. It can therefore be assumed that the office data reported in this study constitutes the majority of gross space in the regions surveyed. However, on the market level there are select cases where owner-occupied structures do account for a substantial proportion of total office space, especially in remote suburban locations.



Endnotes

1 Robert Lang is Director of Urban and Metropolitan Research at the Fannie Mae Foundation and is also Managing Editor of its scholarly journal Housing Policy Debate. He is about to complete a major study on the recent evolution of metropolitan office space entitled *Edgeless Cities: Exploring the Elusive Metropolis,* which is funded by the Lincoln Institute of Land Policy.

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- 2 Bureau of Labor Statistics. 1998. The Employment Situation: September 1998. Washington, DC: U.S. Department of Labor.
- 3 Baldassare, Mark. 1992. Suburban Communities. Annual Review of Sociology (18): 475–94; Fitzsimmons, James D. and Richard L. Forstall. 1993. Metropolitan Areas: Definitions for the 1990s and Evaluation of Concepts. Paper presented at the annual meeting of the Association of American Geographers, April 9, Atlanta; Hughes, Holly. 1993. Metropolitan Structure and Suburban Hierarchy. American Sociological Review (58)2: 417–33.
- 4 Office of Management and Budget. 1996. Central Cities of Metropolitan Areas. Bulletin No. 96–8. Washington, DC: U.S. Bureau of the Census, Population Division.
- 5 U.S. Bureau of the Census. 1990. Characteristics of the Population 1990. Washington, DC: U.S. Government Printing Office.
- 6 Cushman & Wakefield. 1998. Real Estate Forecast & Review (Specific Publications used: Atlanta; Dallas; Florida; Houston; Metropolitan Washington, DC; Midwest; New England; New York Area; Northern California; Philadelphia; Southern California). New York: Cushman & Wakefield, Inc.
- 7 The distinction between a downtown and a central city is an important one. The size, density and structure of central cities varies tremendously from region to region, and this variation often influences the share of office space found in cities and suburbs in any particular region. For a further distinction between the office environments in the suburbs see Lang (forthcoming 2001).

- 8 Given this diversity of sources, with correspondingly varied foci and interests, there is little in the way of uniform guidelines for determining even basic attributes of office markets such as total size. In fact, there is not even a general agreement as to what can be categorized as an office building. Therefore, any compilation of office statistics must to an extent be customized, and data selected on the basis of relevance to the task at hand.
- 9 For more details see Appendix B.
- 10 Fannie Mae Foundation. 1999. Downtown Housing as an Urban Redevelopment Tool: Hype or Hope. Housing Policy Debate 10(2): 477-505.
- 11 Edge cities have a specific definition that appears in previous research on office development. Joel Garreau first used the term "edge city" in his 1991 publication *Edge City: Life on the New Frontier.* Edge cities as defined by Garreau (1991: 6-7) are places that:
 - Have five million square feet or more of office space.
 - Have 600,000 square feet or more of retail space.
 - Have more jobs than bedrooms.
 - Are perceived by the population as one place.
 - Were nothing like a "city" as recently as thirty years ago.
- 12 In Edgeless Cities: Exploring the Elusive Metropolis (Lang, forthcoming 2001), an additional office location category is developed-the edgeless city. Edgeless cities, along with edge cities, identify a subset of non-CBD office space. Edgeless cities, as the term implies, lack a well-defined boundary or edge. Edgeless cities extend over tens if not hundreds of square miles of urban space. Individual components of edgeless cities often have an identity (as so-and-so office park), but collectively these places seldom strike a casual observer as unified in any meaningful way. Thus, unlike edge cities, edgeless cities are not perceived as one place. Gertrude

Stein's famous comment on Oakland, CA "when you get there, there isn't any there, there," would apply even more so to edgeless cities.

- 13 Rusk, David. 1993. *Cities Without Suburbs.* Baltimore: Johns Hopkins University Press.
- 14 Fishman, Robert. 1990. *America's New City: Megalopolis Unbound*. Wilson Quarterly 14(1): 24-45.
- 15 Barnett, Jonathan. 1992. Accidental Cities: The Deadly Grip of Outmoded Zoning. Architectural Record 180(2): 94-101; Bruegmann, Robert. 1995. The American City: Urban Aberration or Glimpse of the Future? In Preparing for the Urban Future: Global Pressures and Local Forces. Michael A. Cohen et al eds. Washington, DC: Woodrow Wilson Center Press. 336-67; Bruegmann, Robert and Tim Davis. 1992; New Centers on the Periphery. Center: A Journal for Architecture in America 7(1): 25-43; Garreau, Joel. 1991. Edge City: Life on the New Frontier. New York: Doubleday; Leinberger, Christopher B. 1996. Metropolitan Development Trends of the Late 1990s: Social and Environmental Implications. In Land Use in America, Henry L. Diamond and Patrick F. Noonan eds. Cambridge MA: Lincoln Institute of Land Policy, pp., 203-22; Langdon, Philip. 1990. Pumping Up New Downtowns. Planning 56(7): 22-28.
- 16 Fulton, William. 1996. Are Edge Cities Losing Their Edge? Planning (May): 4-7.
- 17 Lang, Robert E. (forthcoming 2001).
- 18 Black's Guide. 1999. Black's Guide to Office Leasing (Specific Publications: Atlanta; Boston; Chicago; Connecticut/New York Suburbs; Dallas/Fort Worth; Denver; Detroit; Houston; Los Angeles/Orange County; New Jersey; Philadelphia; San Francisco; South Florida; Washington, DC Metro Area). Gaithersburg, MD: Black's Guide Publishing.

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