



CENTER ON URBAN AND METROPOLITAN POLICY

Beyond Edge City: Office Sprawl in South Florida

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“This analysis shows that South Florida is perhaps the most centerless large office market in the U.S.”

Findings

An analysis of office development in South Florida between 1987 and 2002 finds that:

■ **Of 13 large U.S. office markets studied, South Florida had the lowest percentage of its office space in its major downtown, Miami, in 1999.** Only 13 percent of South Florida’s office space is located in its central business district (CBD), compared to a median of nearly 30 percent for all 13 markets.

■ **Virtually all office growth in Miami-Dade County in the past 15 years occurred outside of Miami’s downtown.** From 1987 to 2002, Miami-Dade’s non-CBD market grew 60.3 percent to include nearly 30 million square feet of office space.

In contrast, office space in Miami’s CBD increased just 4.7 percent over this time period.

■ **Out of 13 office markets, South Florida has the largest percentage of its office space located in “Edgeless Cities”—a form of small-scale and scattered office development that never reaches the critical mass of an Edge City.** In 1999, two-thirds (66 percent) of South Florida’s current office space could be found in Edgeless Cities. In Philadelphia—the only other predominantly “edgeless” market of the 13—Edgeless Cities contain just 54 percent of the market’s office space.

I. Introduction

The last 20 years brought a dramatic shift in the location of office employment in metropolitan America away from central cities and into the suburbs. The boom in suburban office development occurred largely in the 1980s, during which time over half (58 percent) of the suburban office space that exists today was built. While the pace of office construction slowed in the 1990s, the overall trend toward suburbanization continued. In total, almost four-fifths (79 percent) of the current suburban stock was constructed from 1980 to

1999.² While office buildings were the last major element of central cities to suburbanize—following residences and retail establishments—by 1999, 42 percent of commercial office space nationally was located in suburban areas.³

The evolving geography of office location has implications not only for the substantial number of employees who go to work each day in office buildings, but for the local leaders who must grapple with the policy issues these new trends bring forth. For example, the dispersal of new office space can exacerbate a region’s jobs/housing mismatch, or widen the distance between economic oppor-



tunity and concentrations of minority households.⁴ Office location can also facilitate urban sprawl. If most new office space is constructed at the regional edge, it extends commuter sheds for many miles into undeveloped rural areas and fuels decentralization.⁵ 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.⁶

The distribution of urban and suburban office space—and hence the appropriate policy responses to it—is not uniform across all regions, however. The majority of office space in the Chicago and New York metropolitan areas, for example, lies within their respective core central cities, while the suburbs boast a larger share in Philadelphia and Detroit. This study seeks to provide a better understanding of the spatial structure of office development in one region—South Florida—and how it compares with development patterns in metropolitan areas around the nation. It concludes with a discussion of how leaders in this region can address the policy concerns that arise from the report’s findings.

II. South Florida

Known for its beaches, tourist attractions, and retirees, South Florida has grown into a complicated multicultural community with a major presence in the international economy.⁷ South Florida differs substantially from the northern parts of the state in that it is culturally and demographically not part of the American South.⁸ The region has been settled by two major outside groups. The first group consists of domestic immigrants from the North, especially the New York region. The other includes international immigrants from Latin America, predominantly Cuba.

Geographically, South Florida is a

three-county region that includes Miami-Dade, Broward, and Palm Beach counties. In essence, South Florida really means—given the presence to the West of the Everglades—*Southeast* Florida. And that encompasses Miami-Dade County and Broward County—which together comprise the Miami-Fort Lauderdale Consolidated Metropolitan Statistical Area (CMSA)—plus the separate MSA of Palm Beach County.

All of South Florida has experienced rapid expansion for decades and continues this fast population growth. Most of the building has taken place in the past half century, making it, along with such other Sunbelt boom metropolises as Phoenix and Las Vegas, one of the newest places in America.

The western parts of all three South Florida counties developed later than those further east. That is because these western lands were once part of the Everglades, which until recently covered most of Florida’s southern tip. The newly developed parts of South Florida include the western parts of Broward and Palm Beach counties that press up against the remaining Everglades. Due to a federally mandated urban growth boundary, this western expansion has now ended. Much of the region is now built out, with some of the last new greenfield subdivisions popping up this past year in Broward County. A regional planning movement has emerged around the idea of encouraging new growth to stay to the east—hence its name, “Eastward Ho!”

III. Definitions and Methodology

This report employs a unique method for classifying office location that is based on a study of 13 large metropolitan office markets: Atlanta, Boston, Chicago, Dallas, Detroit, Denver, Houston, Los Angeles, Miami, New York City, Philadelphia, San Francisco,

and Washington, D.C.⁹ It deploys several data sources to provide multiple perspectives on office space development trends in both South Florida as a whole, and in Miami-Dade County specifically, and it compares the markets to the national sample of 13. In this fashion, the study first explores differences in the distribution of central business district (CBD) and non-CBD office space. Then, it develops a new, more specific, categorization that segments the office space market into a downtown segment, an Edge City segment, and one that encompasses Edgeless Cities. (See the appendix for more detail on data and sources.)

CBD versus Non-CBD Office Space

The standard business categories for reporting office data are CBD and non-CBD. CBD space refers to downtown office buildings. Downtowns vary in size and scale, but they typically contain the largest single concentration of a region’s office space.¹⁰ In South Florida, that location is downtown Miami.

Non-CBD office space is everything else. Much of this non-CBD space lies in suburbs, although some offices may be found within the central city outside the CBD. Non-CBD office space varies tremendously in its size, scale, density, location, age, and land use characteristics. The category in this sense captures every office location type from low-rise, low-density office buildings in the farthest reaches of the exurbs to high-density “uptowns” that arose as secondary business districts within the central city. “Non-CBD” is thus a grab-bag category that captures all office space outside a CBD.

Cushman and Wakefield, the nation’s largest full-service real estate firm, tracks office development in Miami-Dade County using the CBD/non-CBD divide.¹¹ This study uses the Cushman and Wakefield data to examine changes in the Miami-

Dade market from 1987 to 2002. The period of analysis captures a market peak in 1987 (a 1986 change in tax laws, which eliminated the passive loss provision, dampened much of the financial fuel for the office boom), a bust in the early 1990s, a recovery in the mid-1990s, and a leveling-off period in the early 2000s.

Downtowns, Edge Cities, and Edgeless Cities

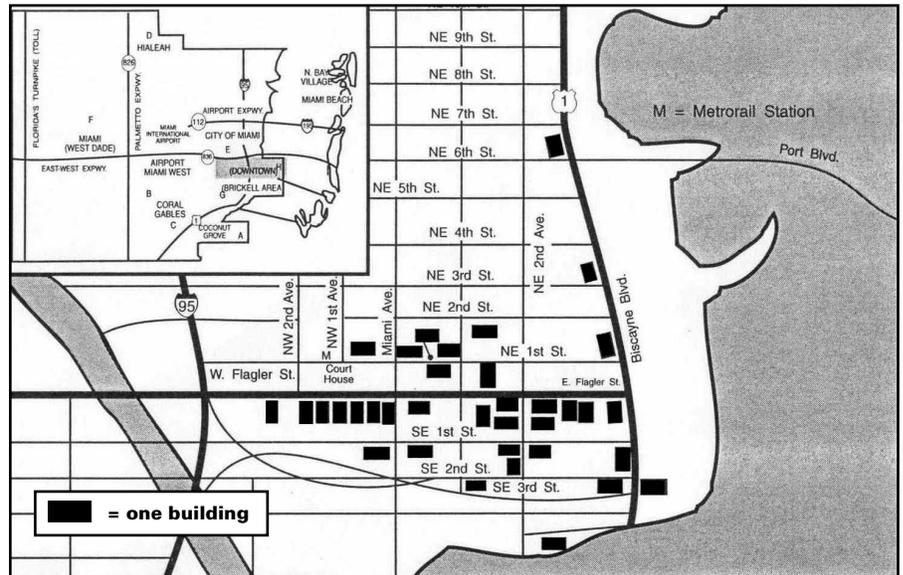
The complexity of commercial real estate marketplaces, however, ensures that the broad categories of CBD and non-CBD do not permit analysis that accurately reflects the shifts occurring in metropolitan regions. For that reason, this report conducts a finer-grained analysis that utilizes a new categorization: downtown, Edge Cities, and Edgeless Cities. Four maps that accompany this section, taken from *Black's Guide* (a leading resource in the commercial real estate industry), illustrate the differences in office space concentration that distinguish the various types of office locale.

Downtowns lie at the center of the region and are often the original site of significant commercial development. There are also “secondary downtowns,” which often originated in the early 20th century as satellite downtowns of the primary downtown.¹² In South Florida, Miami is the primary downtown and Fort Lauderdale a secondary one. (See Maps 1 and 2.)

Edge Cities have a specific definition that appears in the literature on suburban office development. Joel Garreau first used the term “Edge City” in his 1991 book *Edge City: Life on the New Frontier*. Edge Cities as defined by Garreau are places that have the following characteristics:

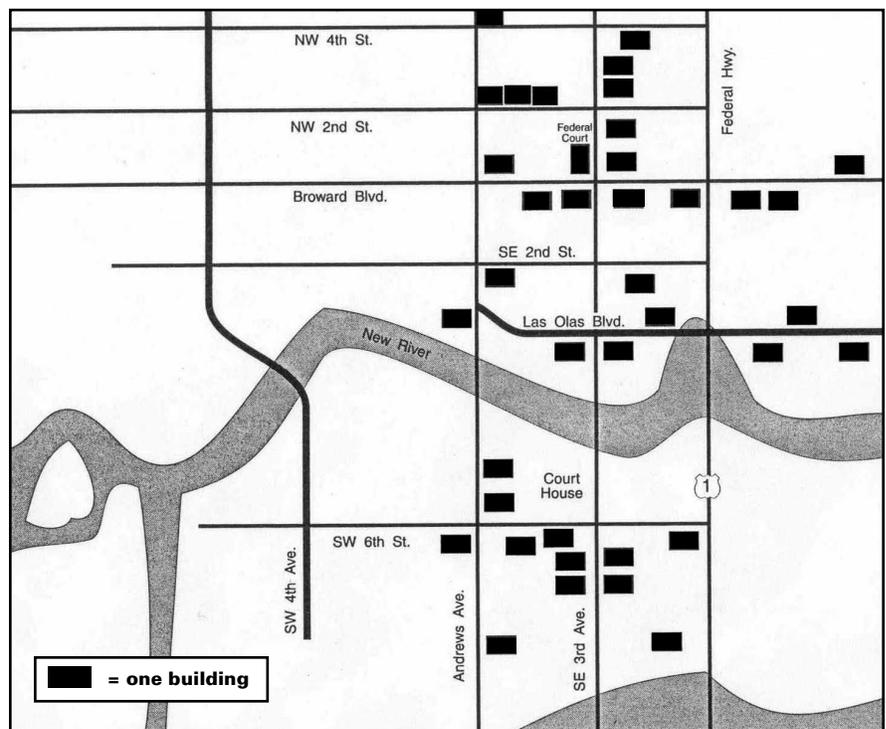
- Five million square feet or more of office space
- 600,000 square feet or more of retail space
- More jobs than bedrooms

Map 1. Miami Is a Downtown



Source: Black's Guide

Map 2. Ft. Lauderdale Is a Secondary Downtown



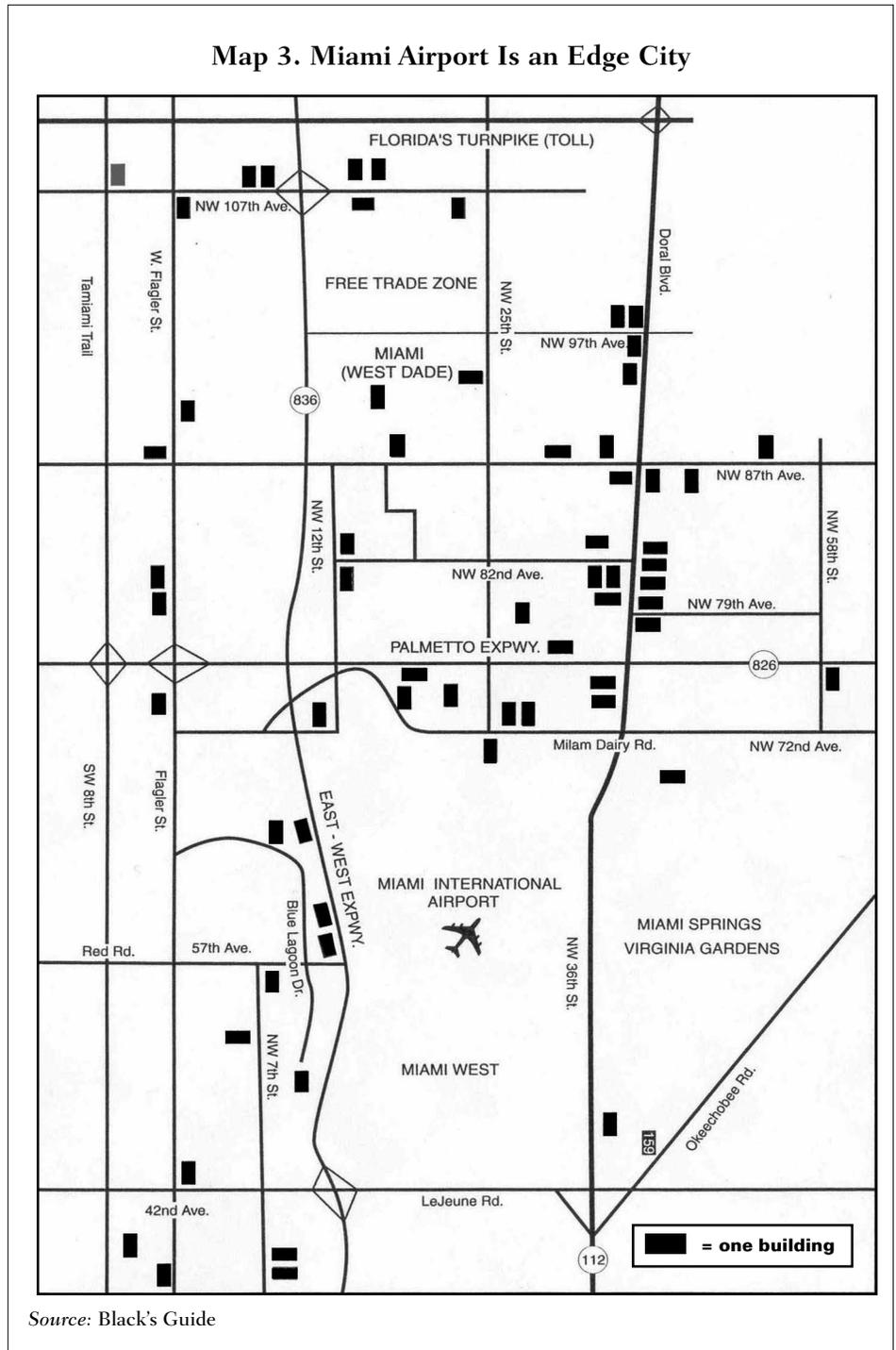
Source: Black's Guide

- Are perceived by the population as one place
- Were nothing like a “city” as recently as thirty years ago¹³

This study deems any contiguous concentration of office space that exceeds five million square feet and is less than 30 years old an Edge City. Edge Cities, in practice, are sizable office and retail concentrations that sprang up in the 1970s and 1980s in such locales as Tysons Corner (Fairfax, VA), Post Oak (Houston, TX), and Perimeter Center (Atlanta, GA). But there is no requirement that these office clusters contain significant retail space. The developments around Miami International Airport and Boca Raton are the region’s only major Edge Cities. (See Map 3.)

The report also employs another non-CBD office location category—the Edgeless City.¹⁴ Edgeless Cities, as the term implies, lack a well-defined boundary or edge. Edgeless Cities extend over dozens 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. In effect, the term “Edgeless City” refers to office sprawl. Edgeless Cities capture all non-downtown space that is not in an Edge City. They scatter far and wide around the region—some sweep around the metropolitan edge, while others fill the gaps between Edge Cities. In South Florida, much of northern Broward County constitutes an extended Edgeless City, especially around Coconut Creek. (See Map 4.)

This analysis uses 1999 data from *Black’s Guide* to describe downtown, Edge City, and Edgeless City office development in the three counties that comprise South Florida.

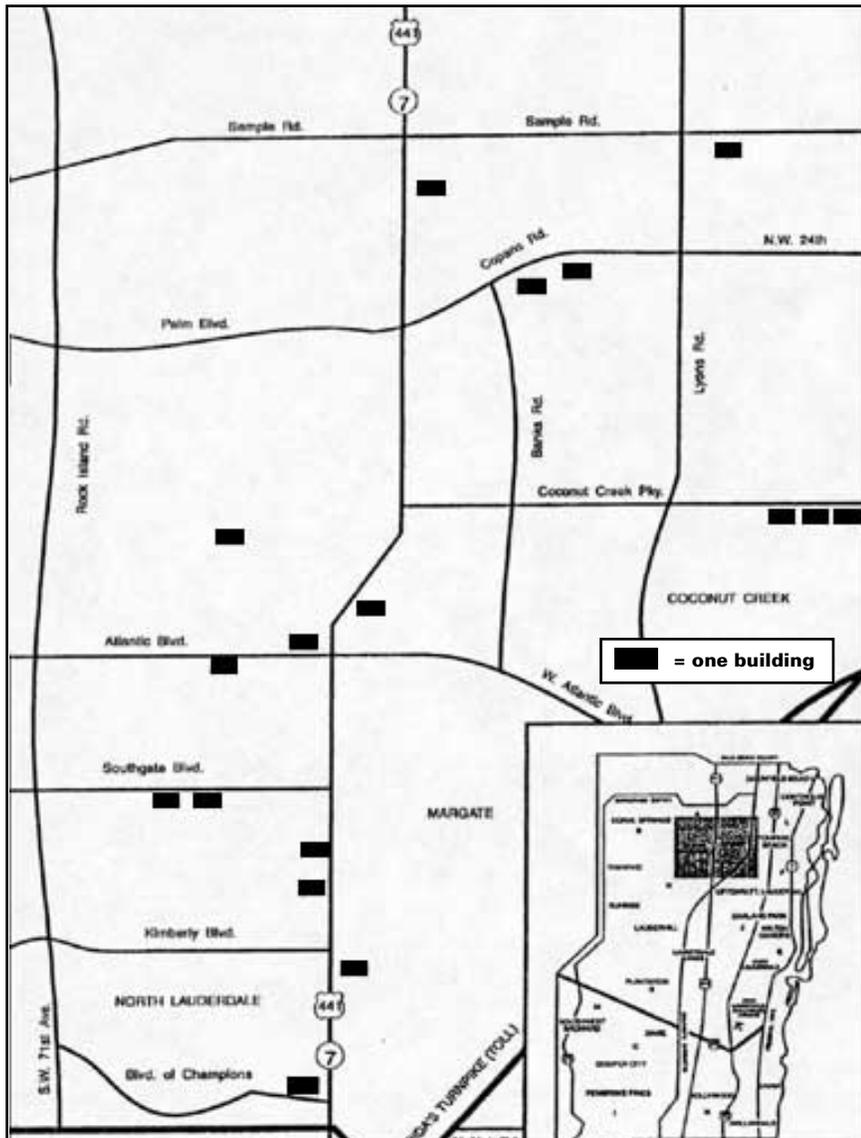


IV. Findings

A. Of 13 large U.S. office markets studied, South Florida had the lowest percentage of its office space located in its primary downtown, Miami, in 1999.

In absolute square footage of office space, Miami’s downtown is the smallest primary downtown among the 13 downtowns compared in this study, and Fort Lauderdale is the second smallest secondary downtown. In fact, at only 12.7 million square feet, downtown

Map 4. Coconut Creek Is an Edgeless City



Source: Black's Guide

Miami has less office space than the top dozen of the nation's Edge Cities.¹⁵

Not surprisingly, South Florida also has the smallest share of all office space in its metro area located in its downtown. Table 1 shows the typology of metro areas by office space distribution, using *Black's Guide* data for 1999. New York (57 percent) and Chicago (54 percent) maintain the

largest regional shares of office space in their downtowns, while the percentage of downtown space in Dallas and Detroit is very small (21 percent each). South Florida (13 percent) has the smallest CBD relative to its metropolitan area market. Note that the total share of non-CBD office space in the 13 metros exceeds that in the metros' CBDs by a factor of 70 to 30.

In terms of office space per capita, South Florida compares fairly well, coming in just below the median. But compared to the other 13 metropolitan regions, South Florida has the largest disparity between its quantity of CBD and non-CBD office space.

B. Virtually all office growth in Miami-Dade County in the past 15 years has occurred outside of Miami's downtown.

In 1987, Miami's CBD had 11.1 million square feet of office space available and a 28 percent vacancy rate. (See Table 2.) Fifteen years later, Miami's CBD had increased just 4.7 percent to include 11.7 million square feet of available office space. At the same time, however, the vacancy rate fell 41.4 percent to 16.4 percent. While very little office space was built in Miami's CBD, vacancy rates fell as businesses moved into already existing office buildings. In other cases, businesses upgraded their space, moving into new structures as their vacated offices were phased out of the market.

The figures for non-CBD office space in the past 15 years tell a very different story. In 1987, Miami-Dade's non-CBD market had 18.2 million square feet of office space available and a 22.6 percent vacancy rate. By 2002, this market had grown 60.3 percent to include nearly 30 million square feet of office space, while vacancy rates had dropped 17.7 percent to 18.6 percent. Thus, the vast majority of Miami-Dade's office growth over the last decade and a half occurred in the non-CBD markets. The disparity in growth rates between CBD and non-CBD office space explains the considerable decrease in the overall share of CBD office space in the metro area during this time period.

Parallel to trends over the past 15 years, the 1997 to 2002 data shows office space growth in Miami-Dade's non-CBD market continuing to outpace growth in the downtown. Table 3 provides a more fine-grained view of

**Table 1. Typology of Metropolitan Areas by Office Space Distribution, 1999
Ranked by Share of Metro Areas' Office Space in the CBD**

Metropolitan Area	Office Space MSF			Metro Share in:		Office Space Per Capita (square feet)
	CBD	non-CBD	Total	CBD	non-CBD	
Majority of Office Space in CBD						
New York	390.1	298.2	688.4	56.7	43.3	34.2
Chicago	134.3	114.8	249.1	53.9	46.1	28.3
Above a Quarter of Office Space in CBD						
Boston	56.7	94.7	151.4	37.5	62.5	26.9
Philadelphia	54.8	105.3	160.1	34.2	65.8	26.7
San Francisco	60.1	117.2	177.3	33.9	66.1	26.0
Denver	23.5	53.8	77.3	30.4	69.6	32.7
Los Angeles	44.8	240.1	284.9	29.8	84.3	18.1
Washington	79.8	199.4	279.2	28.6	71.4	59.7
Below a Quarter of Office Space in CBD						
Atlanta	31.1	101.1	132.2	23.5	76.5	35.3
Houston	38.0	127.1	165.1	23.0	77.0	37.5
Detroit	16.8	61.9	78.7	21.3	78.7	14.4
Dallas	30.6	118.4	149.0	20.5	79.5	31.0
South Florida	12.7	84.2	96.9	13.1	86.9	26.5
Total for all Markets	973.3	1,716.2	2,689.6	31.0	69.0	29.2
Median	44.8	114.8		29.8	71.4	28.3

Note: Manhattan data is from Cushman and Wakefield Research and the Real Estate Board of New York

MSF = millions of square feet

Sources: Black's Guide and the U.S. Bureau of the Census Metropolitan Area Population Estimates, 1998 (MA-98-1)

Table 2. Miami-Dade Office Inventory, CBD versus Non-CBD, 1987 to 2002

Market	1987 Office Space MSF	2002 Office Space MSF	Percent Change in Inventory
CBD	11.1	11.7	4.7
Non-CBD	18.2	29.2	60.3
CDB Share of Total Office Space	37.9%	28.6%	
Market	1987 Percent Vacancy Rate	2002 Percent Vacancy Rate	Percent Change in Vacancy
CBD	28.0	16.4	-41.4
Non-CBD	22.6	18.6	-17.7

Note: MSF = Millions of Square Feet

Source: Cushman and Wakefield

changes in Miami's CBD and non-CBD submarkets during this period, however. Interestingly, a part of Miami's CBD actually grew respectably—the Brickell Avenue sub-

market, which lies just south of the Miami River from downtown, gained over a half million square feet since 1997. By contrast, downtown barely registered any growth.

Changes in Miami-Dade's non-CBD submarkets are more complicated. Overall they grew by over 27 percent, but many submarkets are far off from the cumulative rate. In fact, the Coral

Table 3. Miami-Dade Office Inventory, CBD versus Non-CBD Submarkets, 1997 to 2002

Market/Submarket	1997 Office Space	2002 Office Space	Change	Percent Change
CBD	11,092,272	11,645,736	553,464	5.0
Brickell Avenue	4,684,711	5,222,497	537,786	11.5
Downtown	6,407,561	6,423,239	15,678	0.2
Non-CBD	22,922,594	29,161,476	6,238,882	27.2
Coral Gables	3,856,022	4,781,169	925,147	24.0
Airport/West Dade	7,037,169	9,877,507	2,840,338	40.4
Coral Way	586,070	580,711	-5,359	-0.9
Kendall/South Dade	2,846,147	3,986,627	1,140,480	40.1
Northeast Dade	1,710,785	1,887,235	176,450	10.3
Biscayne Corridor	1,571,473	1,623,932	52,459	3.3
Miami Lakes	1,234,496	1,454,100	219,604	17.8
Coconut Grove	961,110	860,572	-100,538	-10.5
South Miami	1,318,445	1,410,224	91,779	7.0
East Airport	910,217	1,002,500	92,283	10.1
Miami Beach	827,660	1,696,899	869,239	105.0
Total	34,014,866	40,807,212	6,792,346	20.0

Source: Cushman and Wakefield

Table 4. South Florida: Downtowns, Edge Cities and Edgeless Cities, Pre-1980 to 1999

	By Year Built								
	Total Office Space 1999			1990–1999		1980–1989		Pre-1980	
	Square Footage	SF % of Metro Area	Square Footage	SF % of Metro Area	Square Footage	SF % of Metro Area	Square Footage	SF % of Metro Area	
Downtown	17,053,213	17.6%	3,542,330	15.5%	8,837,543	16.0%	4,673,340	24.8%	
Miami	12,678,884	13.1%	1,451,558	6.4%	6,887,664	12.5%	4,339,662	23.0%	
Fort Lauderdale	4,374,329	4.5%	2,090,772	9.2%	1,949,879	3.5%	333,678	1.8%	
Edge Cities	16,077,609	16.6%	5,658,359	24.8%	9,253,906	16.8%	1,165,344	6.2%	
Boca Raton	6,870,513	7.1%	2,757,411	12.1%	3,653,398	6.6%	459,704	2.4%	
Miami Airport	9,207,096	9.5%	2,900,948	12.7%	5,600,508	10.1%	705,640	3.7%	
Edgeless Cities	63,774,416	65.8%	13,625,873	59.7%	37,148,553	67.2%	12,999,990	69.0%	
TOTAL	96,905,238	100%	22,826,562	100%	55,240,002	100%	18,838,674	100%	

Source: Black's Guide

Way and Coconut Grove submarkets actually lost some office space—0.9 percent and 10.5 percent, respectively. The Biscayne Corridor, South Miami, and East Airport submarkets only fared slightly better with modest gains, but the Kendall/South Dade and Miami Beach submarkets boomed, with gains of 40 and 105 percent, respectively.

C. Out of 13 office markets, South Florida has the largest percentage of its office space located in Edgeless Cities.

Table 4 shows the percentage of office space in South Florida using the categories of Downtown, Edge Cities, and Edgeless Cities. It indicates that of the nearly 23 million square feet of office space added in South Florida in the 1990s, almost 60 percent was located

in Edgeless Cities. The two downtowns accounted for 15.5 percent, and the Edge Cities for one-quarter of the inventory (24.8 percent). This growth was in fact small relative to the boom of the 1980s, during which 55 million square feet of office space—over half of the South Florida's total in 1999—was constructed, 67.2 percent within Edgeless Cities.

By 1999, two-thirds (66 percent) of

Table 5. Typology of Metropolitan Areas, Core versus Edgeless Office Space, 1999

Metropolitan Area	% Office Space in Primary Downtown	% Office Space in Secondary Downtown	% Office Space in Edge Cities	% Office Space in Edgeless Cities	% Difference Between Primary Downtowns and Edgeless Cities
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	-5.5
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	-17.6
Detroit	21.3		39.5	39.2	-17.9
Edgeless					
Philadelphia	34.2	3.2	8.9	53.6	-19.4
South Florida	13.1	4.5	16.6	65.8	-52.7

Source: Black's Guide

South Florida's current office space could be found in Edgeless Cities. The rest was about evenly split between downtown (18 percent) and Edge City (17 percent) space. In fact, in 1999 South Florida was the most edgeless metropolis of the 13 regions studied, standing in sharp contrast to core-dominated areas like Chicago and New York, where Edgeless office space makes up less than 30 percent of the area total. (See Table 5.) No other region—even those with relatively dispersed patterns of office development—comes close to the percentage of office space South Florida maintains in its Edgeless Cities.

The good news is that the tide in South Florida may be shifting somewhat. While Edgeless Cities continue to dominate South Florida's office market, they lost some ground in the 1990s to South Florida's two Edge Cities at the Miami Airport and Boca Raton, and to Fort Lauderdale's recently revitalized downtown. (See

Table 4.) This indicates that Miami may have reached its limits of edgelessness, and that as the region shifts from greenfield to infill development, bigger centers are finally emerging.

V. Policy Implications of Office Sprawl in South Florida

So what does all this office data mean for public policymakers in South Florida? The policy relevance of these findings is so broad that a full exploration lies beyond the scope of this report. However, a number of general ramifications associated with the dominance of the Edgeless City pattern of office growth in South Florida cannot be ignored. The list below hardly exhausts the possible impacts of Edgeless Cities, but it does include many of the major issues that have been at the center of South Florida's public policy debate over sprawl.¹⁶

Environmental/Land Use

There is a possible link between Edgeless City expansion and lower density development or urban sprawl—especially in Eastern-U.S. metropolitan areas.¹⁷ To the extent urban space sprawls into habitat areas, it increases the scale of environmental impact. In South Florida edgeless expansion has resulted in the loss of thousands of acres of Everglades. South Florida faces water quality issues as the result of the loss.¹⁸ On the positive side, this edgeless expansion finally has reached an edge that was mandated by the federal government.

Public Transportation

When it comes to public transit opportunities, Edgeless Cities fall far short of even Edge Cities. One can imagine that a dense, maturing Edge City could be well integrated into a bus or even light rail transit system. And they have been in certain cases.¹⁹ But Edgeless Cities provide no such prospect.

As the percentage of regional office space located in Edgeless Cities rises, the percentage of people that can commute by mass transit drops. One could argue that while some public transportation systems exist in South Florida, they have little benefit to most South Floridians who commute from one suburb to another. Operating public transportation between suburbs is too inefficient and costly. Even “paratransit” service to most of these places is at best difficult.

Private Transportation

As the percentage of regional office space in Edgeless Cities expands, reliance on automobiles for work commutes grows, as does commuting distance. As edgeless office space grows, vehicle miles traveled (VMT) increase.²⁰ In a study done by the Surface Transportation Policy Project in 2000, South Florida ranked fourth in the nation among the regions with the largest percentage (19 percent) of household income spent on transportation.²¹ However, there are those who argue that, while office sprawl may add to commuting lengths, it reduces congestion, increases speeds and thereby little alters commuting time.²² Edgeless City expansion may also lessen some of the congestion problems around big Edge Cities.²³

Jobs/Housing Balance

The jobs/housing balance may actually improve in many suburbs as Edgeless Cities growth diffuses offices deeper into residential areas. The data in this study shows that office space is in fact widely distributed throughout South Florida. But that may not translate into significant reductions of commuting distances.²⁴ The paradox results from the fact that the local Edgeless City building may not be the destination for a particular commuter. Given that Edgeless Cities are not concentrated employment centers or “destinations,” it is doubtful that the people living near them actually work there.

Public Costs

Office development has costs as well as benefits. Given that Edgeless Cities are by their very nature centerless, the costs in roads and other infrastructure may be higher than if such development were concentrated.²⁵ These higher costs are often borne at all levels of government. Many localities hesitate to charge impact fees to office developments because they are such a high ratable. However, some regions, such as the Bay Area, where job growth has far outpaced housing development, are more resistant to new office development.²⁶ Florida, a state with no income tax, relies heavily on local taxes. Additionally, unlike San Francisco, South Florida has been adding houses and jobs in more equal proportion and hence has less incentive to resist new office development.

Fiscal Equity

Because most Edgeless City growth occurs outside central cities, it pulls resources from the regional core. Research has shown that the metropolitan periphery has received far more investment than the center and the inner ring of suburbs.²⁷ The entire region pays the public subsidies that are required for Edgeless city infrastructure and road building projects. If Edgeless Cities capture a growing share of a region’s office development, they may add to existing regional inequalities with regard to public infrastructure expenditures. In the case of South Florida, this would see the west draw resources away from the east as it develops.

Fiscal Capacity

Because Edgeless Cities distribute office space so widely, they may help some suburban municipal budgets by adding valuable ratables to the tax base. Office development, especially high-tech research parks, enhances fiscal capacity. If Edgeless Cities are built in less affluent municipalities than Edge Cities, their presence may even

improve the distribution of the tax base across a region (even though they may also increase traffic some and require additional infrastructure). Even so, though, regional revenue sharing would likely prove a better method of distributing tax resources among municipalities than having office development sprawl. According to Myron Orfield’s analysis, much of Broward County lost fiscal capacity as measured on a per capita basis from 1993 to 1998.²⁸ This is because population growth outpaced new ratables. The expansion of Edgeless Cities in such places could improve this capacity.

VI. Conclusion

This analysis shows that South Florida is perhaps the most centerless large office market in the U.S.²⁹ Like much of the Sunbelt, South Florida’s downtown centers have never been as big or dense as Northeast and Midwest downtowns. At the same time, South Florida has developed few of the large-scale suburban office centers, or Edge Cities, commonly found in other Sunbelt regions such as Atlanta, Houston, and Dallas. Put it together, and this combination of modest downtowns and small dispersed suburban centers makes South Florida the nation’s leader in office sprawl.

At the moment, to be sure, South Florida is in flux. It does not appear that the volume of office space in South Florida’s Edgeless Cities is growing. Perhaps South Florida has reached some outer limit of office sprawl, and some coalescence of new development is occurring in its centers. But while the pace of this edgeless growth may be abating, it is clear that leaders in South Florida need to understand the development patterns of the past 20 years, and anticipate where growth will occur in the future. Only by doing so will they be prepared to respond to the many policy challenges these trends portend.

Appendix. Measuring and Mapping Office Data

Sources of Office Data

Government agencies do not collect office market statistics. Instead, a variety of real estate brokers, consulting firms, realty and building associations, and office guide publishers gather this data. Given the diversity of sources, with correspondingly varied foci and interests, no uniform guidelines exist for determining even basic attributes of office markets such as total size. In fact, there is not even a general agreement as to what should 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.

The major source for office data in this study is *Black's Guide*, an important reference in the commercial real estate industry published in Gaithersburg, MD. Data from Cushman and Wakefield, a national commercial realtor, was also used.

Black's Guide Office Data

Black's Guide lists 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. *Black's Guide* surveys even the smallest suburban office markets, making it possible to compare data across regions. 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 Guide's* primary source of revenue is display advertising.

Cushman and Wakefield Office Data

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, are finished with superior materials (such as marble in lobbies), 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. Cushman and Wakefield does survey both A and B space, however its research is geared toward the higher end of the market and thus A space is over represented in its reports.

Like *Black's Guide*, Cushman and Wakefield also 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.

Black's Guide and Cushman and Wakefield's survey of rental offices both include, in addition, occupied properties that are also partially leased out to other companies. In such instances, the entire building, not just the leased portion, factors into the inventory of rental-office space.

Limits of Office Data

While office data is an important indicator of metropolitan change, it cannot convey the whole picture. The offices documented in the study are leased, multi-tenanted buildings that exclude such other major employment facilities as government offices, warehouses, flex space (offices combined with light manufacturing), hospitals and universities. That means this study reports on only a portion of the white-collar employment (albeit a sig-

nificant share) in 13 of the nation's largest metropolitan areas. While retail space is not specifically tracked, the presence or absence of large regional malls amid office development was noted.

Also missing from the study were small office buildings, such as those occupied by local professionals (e.g., dentists and tax preparers). These services have long been dispersed because they fill local needs and thus followed people to the suburbs. This study instead zeros in on the type of office buildings that used to be almost exclusively found in large commercial centers and housed businesses such as advertising and financial services firms.

Had all local businesses been included in this analysis, the region would have appeared so radically decentralized that the region's extreme job sprawl would have obscured the recent shift of higher-order economic activity from the center to the edge.

Endnotes

1. Robert Lang directs the Metropolitan Institute at Virginia Polytechnic Institute and State University. He is the author of *Edgeless Cities: Exploring the Elusive Metropolis* (Brookings Institution Press).
2. Robert Lang, "Office Sprawl: The Evolving Geography of Business" (Washington: Brookings Institution, 2000).
3. Christopher B. Leinberger and Charles Lockwood, "How Business is Reshaping America," *The Atlantic* 258(10)(1986): 43–52. See also Robert Lang, "Office Sprawl: The Evolving Geography of Business."
4. Robert Cervero, "Unlocking Suburban Gridlock," *Journal of the American Planning Association* 52(4)(1986): 389–406. See also John Kain, "The Spatial Mismatch Hypothesis: Three Decades Later," *Housing Policy Debate* 3(2)(1991): 371–459.
5. Richard D. Bingham. et al., *Beyond Edge Cities* (New York: Garland, 1997). See also Chengri Ding and Richard D. Bingham, "Beyond Edge Cities: Job Decentralization and Urban Sprawl," *Urban Affairs Review* 35(6)(2000): 837–855.
6. Robert Cervero. "Jobs-Housing Balance Revisited," *Journal of the American Planning Association* 62(4)(1996): 492–511. See also Robert Cervero, *America's Suburban Center: The Land Use Transportation Link* (Boston: Unwin, 1989).
7. In fact, analysis of "World City" connectivity in financial flows finds that South Florida is more connected with Latin America than with the rest of the United States. The region is also the main link between financial centers in Latin America and the rest of the world. See Edward Brown, George Catelano, and Peter J. Taylor, "Beyond World Cities: Central America in a Global Space of Flows," *Area* 34(2)(2002): 139–148.
8. See Wilbur Zelinsky. *The Cultural Geography of the United States* (Englewood Cliffs, NJ: Prentice Hall, 1973).
9. This analysis is based on Consolidated Metropolitan Statistical Areas (CMSAs), except for Washington—which includes only the PMSA—and South Florida, which includes the CMSA of Miami-Fort Lauderdale, plus the MSA of Palm Beach County. For more details on the data and methods used in this study, see Robert E. Lang, *Edgeless Cities: Exploring the Elusive Metropolis* (Washington: Brookings Institution Press, 2003).
10. *Ibid.*
11. Cushman and Wakefield does not report on Broward and Palm Beach Counties, thus analysis of this data focuses only on Miami-Dade County.
12. Robert M. Fogelson, *Downtown: Its Rise and Fall, 1880–1950* (New Haven: Yale University Press, 2001).
13. Joel Garreau, *Edge City: Life on the New Frontier* (New York: Doubleday, 1991).
14. Lang, "Office Sprawl." See also, Lang, *Edgeless Cities*.
15. Lang, *Edgeless Cities*.
16. Robert Burchell and others, *The Costs of Sprawl—Revisited* (Washington: National Academy Press, 1998). See also Reid Ewing, "Characteristics, Causes and Effects of Sprawl: A Literature Review," *Environmental and Urban Issues* (Winter) (1994): 1–15.
17. Lang, *Edgeless Cities*.
18. Robert E. Lang, "Open Spaces, Bounded Place: Does the West's Arid Environment Yield Dense Metropolitan Growth?" *Housing Policy Debate* 13(4)(2002).
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20. Cervero, *America's Suburban Center*. See also Cervero, "Unlocking Suburban Gridlock."
21. Barbara MaCann, "Driven to Spend: Sprawl and Household Transportation Expenses" (Washington, D.C.: Surface Transportation Policy Project and Center for Neighborhood Technology, 2002).
22. Peter Gorden and Harry Richardson, "Congestion Trends in Metropolitan Areas." In *Curbing Gridlock: Peaking Period Fees to Relieve Traffic Congestion* (Washington: National Academy Press, 1994).
23. Randall Crane, "Cars and Drivers in the New Suburb: Linking Access to Travel in Neo-Traditional Planning," *Journal of American Planning Association* 62 (1)(1996): 51–65.
24. Cervero, "Jobs-Housing Balance Revisited." See also Robert Cervero and Robert Gorham, "Commuting in Transit versus Automobile Neighborhoods," *Journal of the American Planning Association* 61(2)(1995): 210–225.
25. Robert W. Burchell, *South Carolina Infrastructure Study: Projections of Statewide Infrastructure Costs 1995–2015* (New Brunswick, NJ: Rutgers University Center for Urban Policy Research, 1997).
26. Patrick A. McGovern, "Contra Costa County Edge Cities: The Political Economy of Planning." Ph.D. dissertation, University of California, Berkeley, 1994.
27. Myron Orfield, *Metropolitics: A Regional Agenda for Community and Stability* (Washington: Brookings Institution Press, 1997).
28. Myron Orfield, *American Metropolitics* (Washington: Brookings Institution Press, 2002).
29. Lang, *Edgeless Cities*. See also Lang "Office Sprawl."

Acknowledgments:

The author is grateful for the advice of Jennifer Vey and Rob Puentes of the Brookings Institution Center on Urban and Metropolitan Policy. He would also like to thank Jared Lang for help with the data.

The Brookings Institution Center on Urban and Metropolitan Policy would like to thank the MacArthur Foundations for its support of this project. Brookings would also like to thank the Fannie Mae Foundation for its founding support of the urban center and its work.

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