Filtering in Office Markets: Evidence From Medium-Sized Cities

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Abstract. **Filtering, a change in the quality of use for a structure, has been studied extensively in housing. However, there are reasons to believe that the phenomenon is at least as significant in office markets. Reasons to expect filtering in office markets are presented in this article. Then evidence of filtering is examined from two medium-size cities. The findings are strongly consistent with the presumed effects of filtering. As expected, evidence of filtering is least significant for large downtown highrise offices, more significant among clustered suburban office buildings, and most significant among isolated office buildings.**

Introduction

The volatile character of office markets has become well recognised ([12], [17], [22]). But it is not clear from research findings whether the volatility is more cyclical or more sequential. It is cyclical to the extent that the existing stock of properties goes through the same experience with each repeat of a cycle. It is sequential to the extent that the existing stock of properties goes through a changed experience with each cycle. The value, investment and financial risk implications of this distinction could be large.

This article addresses the possibility that office market volatility is sequential, and that it exhibits a pattern of so-called filtering, whereby the use of a building is likely to decline to a lower value use as part of the cycle. We first capsulize previous research on office selection, then introduce the concept of filtering. Next, we present the case that leads us to hypothesize that filtering is an important economic factor in suburban office markets. We present partial tests of the filtering hypothesis using evidence from Jacksonville and Orlando, Florida. Our first approach to testing is to look for evidence that the composition of occupants in suburban office parks changes in the manner that filtering implies. Our second approach is to see if variation in the growth of rental rates among office buildings is consistent with what filtering implies. Following the tests we present final thoughts and conclusions.

A Hypothesis of Filtering and Office Obsolescence

There is a substantial academic literature covering various aspects of the subject of office markets. Of most interest to the current application is the literature on office

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location. Generally, this literature implicitly assumes a stationary urban economy where the technology and size of the city are fixed.[1] But this misses the effect of urban growth and technological change, which may cause location, i.e, "highest and best use," to be transient. The only office literature that recognizes the dynamic element is the forecasting literature alluded to above, but it has only rudimentary reference to metropolitan-level location decisions.

Filtering is a model that emphasizes the dynamic character of real estate markets. For purposes of this study it may be defined as a decline in the relative desirability of a structure as newer, alternative structures emerge.[2] This differs from a more common concept of filtering that has been applied extensively in housing. There, the primary filtering question is whether the benefit of housing subsidies can "trickle down" to households with incomes below that of the direct recipients. Such benefits only "trickle down" if prices or rental rates of housing fall without an offsetting fall in quality. The constant quality issue for filtering in housing imposes modelling and econometric requirements for empirical research that are not pertinent here.[3]

Though the literature on filtering has focused on housing markets, there is reason to expect that the phenomenon is at least as significant in office markets. The hypothesis of this paper is that there exists a predictable pattern of sequentially declining value uses (in relative terms) for suburban office buildings. Its presence would be compelled by the combination of high turnover in office markets and significant technological change affecting both office buildings and urban form. Its nature and significance will differ from filtering in housing to the extent that it is driven by locational change and technical obsolescence rather than by a simple change in quantities of space supplied. The characteristics of suburban office markets that suggests this form of filtering are detailed below. The purpose of this article is to investigate whether observed office patterns are consistent with this form of filtering.

Characteristic 1: Office Occupancy Tends to Be Short Term

Much of the market for office space is comprised of tenants, who make location decisions from among an available set of buildings provided by developers.[4] Because they are tenants with a lease, they are tied to the building only for the lease term. Evidence from surveys of tenants in Orlando and in Jacksonville show this lease term to be short, frequently one to five years, and finds considerable movement by firms.

In Orlando, a sample of twenty-seven buildings of varying age and location, both downtown and suburban, was generated and lists of tenants in those buildings obtained. Telephone interviews were used to obtain tenant information, including the number of years located at the current site, previous location of the office, staff size, function of the office, service area, and location of the home office of the company. A total of 180 usable responses were generated.

Exhibits 1 through 3 present summary results from the survey. These tables show the extent of turnover that occurs in the office market and the nature of that turnover. Over 60% of the tenants surveyed have been in their current location for three years or less, as shown on Exhibit 1. Less than 10% have been in their location for more than five years. Suburban firms are more likely to have occupied their space recently than

Exhibit 1

Years at Current Location, Office Tenants

1 year or less	16.7%
More than 1 to 2 years	16.7
More than 2 to 3 years	28.9
More than 3 to 4 years	15.5
More than 4 to 5 years	12.8
More than 5 years	9.5

Exhibit 2

Years at Current Location, Downtown versus Suburban

	Downtown	Suburban
1 year or less	16.3%	15.8%
More than 1 to 2 years	11.6	18.2
More than 2 to 3 years	23.3	30.7
More than 3 to 4 years	48.8	34.3
	100.0	100.0

Exhibit 3

Previous Location of Office Tenants, Downtown and Suburban

Previous Location	Downtown	Suburban
Downtown	72.7	13.7
Off-Downtown	13.7	32.9
Suburban	9.1	45.2
Other	4.5	8.2
	100.0	100.0

Source: Survey by the authors

downtown firms, as over 65% of suburban firms have been in their current location for three years or less as compared to slightly over 50 % of downtown firms (see Exhibit 2).

Some firms occupying space in suburban buildings may be new firms in their original location. To examine older firms, the survey asked responding firms about their previous location. Firms detailing their previous location as being in the Orlando area (about 55% of the sample) appear to view downtown and the suburbs as separate office markets (Exhibit 3). Over 70% of all responding downtown tenants were previously located in the downtown, and less than 10% moved from the suburbs to downtown. Under 15% of suburban tenants were previously located downtown, and about 45% moved from another suburban location. Firms in the downtown or the suburbs appear to move to better their situation in those markets.

Finally, a subset of the buildings in the survey, those built in 1985 and 1986, were examined. These buildings are five or six years old, so the length of occupancy of tenants in the buildings is of interest to determine whether turnover is occurring in these relatively new buildings. The buildings were divided by location into three categories: downtown, Maitland (the largest suburban office node), and other suburban. It was found that 29.6% of the tenants in the downtown buildings had been occupying their space for three years or less. In the suburbs the result is radically different, as 70.8% of Maitland tenants and 72.2% of other suburban tenants have been in their current office three years or less. This result would seem to indicate that considerable turnover has occurred in the suburban market, even in buildings built relatively recently, as many of the tenants surveyed are not the original occupants of the space.

The survey results in Orlando indicate that there is considerable turnover in the office market and that the turnover is more pronounced in suburban markets. Similar results were found in a parallel survey Jacksonville. Of particular interest, interviews by the authors of tenants currently in the prime suburban Jacksonville cluster revealed that while over half the firms were new to Jacksonville, or simply are new firms altogether, the largest share of those moving from elsewhere in Jacksonville came from other, older suburban centers (40% of the in-town migrants).[5] (Of other in-town migrants, 20% came from downtown, 14% from an off-downtown area known as the Southbank, and the rest from a variety of isolated buildings.)

While these results illustrate the substantial, rapid turnover that occurs, at least in the two surveyed markets, they do not indicate filtering unless the turnover pattern is systematically toward relatively newer buildings. The following characteristics give reason to expect this pattern.

Characteristic 2: Change in Building and Office Technology Has Been Rapid

Of particular interest in office markets are technological and locational obsolescence. Office space in this century has evolved from the primitive high rise buildings to the skyscrapers of today through far-reaching innovations in lighting (fluorescent lights), heating and air conditioning, elevator systems, electrical supply and construction techniques. The effect of these changes is apparent in the drastic differences in office building design to be observed still today in any downtown where samples of office buildings of a pre-fluorescent era remain. The extremely narrow "footprint" of these buildings, necessary to achieve adequate lighting and ventilation, stands in stark contrast to the glass

block buildings of subsequent years. In more recent years, perhaps less visible, but still important technical changes have occurred in internal building systems, including provisions for more advanced air-conditioning and communications systems.

Simultaneous with the evolution of building technology has been the evolution of office technology. In the last twenty to thirty years, computers and data processing, telephone enhancements, facsimile transmission and other factors have changed the way office-based firms conduct their business, and have reduced reliance on downtown sites.

There seems little question that both the functions and the facilities of the office world have undergone persistent and extensive change over the last several decades. In fact technological change arguably has been more extensive in the office world than in the residential world because it has not been bound by complex values, traditions and interpersonal relationships.

Characteristic 3: Suburbanization Continues to Open New Office Location Choices

Limited access highways and other transportation improvements in the last thirty years have enabled firms and population to move to the suburbs, and much suburban growth in office space has occurred in the last fifteen years. The overwhelming shift to automobile transportation, combined with the evolution of circumferential expressways, has opened up a large array of suburban location choices for office buildings. This process continues in many cities as new "beltways" are completed.

Characteristic 4: Variability in Space Needs

There is a wide variability in the total space needs of tenants and in the size of buildings, so that movement by a tenant or the opening of new space can have a major impact on the local office market. Firms may also grow or contract significantly, thus changing their space needs. A few "players" can therefore have a major influence in the market.

Characteristic 5: Suburban Office Space Clusters

A considerable amount of office space in suburban areas is found in clusters, often in the form of office parks. If firms are choosing a suburban location because they are "footloose," then the reasons for them to cluster may differ from the face to face contact motivations for downtown clusters. Among the reasons for clustering may be the presence of economies of scale in the provision of services to tenants within the cluster, amenities that can only be offered in a large-scale development, or image benefits that firms derive from locating in a particular cluster.

Hypothesis of Differential Filtering

The characteristics above combine to suggest a differential tendency of large downtown vs. suburban office building classes towards obsolescence through "filtering," or relative decline in value to tenants.

First to consider is the effect of Characteristic 2, technical change. All office buildings have been, and may continue to be subject to adverse effects of technical change. However, the largest downtown buildings may be less vulnerable than others, consistent with their function as signature structures. To the extent that their function is to provide a visual presence for banks and other firms as a means to enhance marketing, it is little affected by technical change. Further, even if technical progress renders a strategic downtown highrise obsolete, there are at least two reasons for the effect to be relatively mild. First, technical modernity presumably is not the dominant motivation for occupancy of the building by its tenants, and they may be relatively insensitive to the obsolescence. Second, since the value of reinvestment in an office building depends upon the longevity of the building, reinvestment to retrofit the downtown highrise presumably is more justifiable than with less enduring locations elsewhere.

Next to consider is the effect of Characteristic 3, continued suburbanization. As more circumferential expressways are completed, additional potentially competitive office locations emerge. In a city continuing to experience population growth, the expansion of suburban locations provides a nearly continuous opportunity for office building developers to initiate new buildings at new, probably now superior, sites (assuming land use controls do not prevent such development), and with superior building design since they can incorporate state of the art technology.

Characteristic 5, "clustering," suggests that firms may move from one office park to another if they perceive an advantage in terms of available services, image or prestige. The image or prestige benefits are most likely to be present in the newest office parks.

Finally to consider are the implications of short lease terms (Characteristic 1) and the size of tenants and buildings (Characteristic 4). Short leases together with low costs of moving relative to other firm costs imply potential turnover in tenants who perceive a better choice. This will tend to drive office rent rapidly toward a market competitive level. If firms perceive quality as relative, then all that is necessary for one "Class A" office complex to rapidly decline in market value is for a competitor to open. If office value is relative, then the arrival of even a marginally better office building can relegate the former "Class A" building to lower order use. This is particularly true where the movements of a few firms have a major impact on the market.

The filtering pattern that emerges from the combined characteristics is reinforced by investment incentives. Since retrofitting of aging office buildings will bring higher investment returns where the prospective effect on rental rates is greater, reinvestment will vary directly with market prospects. This will amplify the effect of any market opportunity differential.

The combined effects of the characteristics observed is a process of differential rates of filtering. The propensity for filtering depends on the durability of the economic location, the prominence of the structure and the size of the building cluster. Thus, least vulnerable to filtering and the resultant decline in relative position and relative rental rate is the large downtown highrise office building, while more vulnerable is the suburban "Class A" building, and most vulnerable is the isolated building. The following test this hypothesis.

A Partial Test of Filtering Using Changes in Occupancy Patterns

The phenomenon of office filtering should be manifest in a number of ways. For example, implicit in the concept is a quality gradation among offices occupants. (One

Exhibit 4a

Fortune Five Hundred and non-*Fortune* Five Hundred Office Occupants Jacksonville, Florida

Raw Counts of Occupants

Office Cluster		Year 1972	1977	1981	1985	1990
I.	F.F.H.	79	65	56	44	26
	non-F.F.H.	268	290	297	255	299
II.	F.F.H.	—	14	18	34	34
	non-F.F.H.	—	55	85	215	243
III.	F.F.H.	—	13	18	23	12
	non-F.F.H.	—	64	81	122	192
IV.	F.F.H.	—	—	—	19	37
	non-F.F.H.	—	—	—	115	184

In-Cluster Percentage of *Fortune* Five Hundred Occupants

Office Cluster	Year 1972	1977	1981	1985	1990
I.	22.8%	18.3%	15.9%	14.7%	8.0%
II.	—	20.3%	17.5%	13.7%	12.3%
III.	—	16.9%	18.2%	15.9%	5.9%
IV.	—	—	—	14.1%	16.7%

Across-Cluster Percentage of *Fortune* Five Hundred Occupants

Office Cluster	Year 1972	1977	1981	1985	1990
I.	100%	70.7%	60.9%	36.7%	23.9%
II.	—	15.2%	19.6%	28.3%	31.2%
III.	—	14.1%	19.6%	19.2%	11.0%
IV.	—	—	—	15.8%	33.9%

Source: Information from *Jacksonville City Directory,* R.L. Polk and Company, Publishers, various years

way to define filtering would be as change in the average quality of occupancy.) By classifying offices according to the quality gradation, one can measure changes at a location in quality of occupancy. Below, we use this approach to test for evidence of filtering in the suburban office clusters of two major Florida cities. On the basis of both casual observation and interviews with experienced office management firms, we adopt the working hypothesis that, among standard business offices, firms in the *Fortune* "Industrial Five Hundred" and the *Fortune* "Service Five Hundred" tend to be "high quality" tenants. With this assumption, evidence of change in the locational distribution of the *Fortune* Five Hundred firms can be evidence of filtering. The two cities examined are Jacksonville and Orlando, Florida. The office clusters examined are those generally recognized to have been, at some time during the period from 1970 to 1991, a "leading" office park.[6]

In Exhibit 4, the number of *Fortune* Five Hundred and non-*Fortune* Five Hundred office tenants are reported in each office cluster at about five year intervals from 1972 through 1991. Two ratios are of interest. First, the percent of all suburban *Fortune* Five Hundred occupants in each cluster suggests the relative dominance of the cluster within the metropolitan area. Second, the percentage of all occupants within the cluster that are

Exhibit 4b

Fortune Five Hundred and non-*Fortune* Five Hundred Office Occupants Orlando, Florida

Raw Counts of Occupants

Office Cluster		Year 1972	1977	1981	1985	1990
I.	F.F.H.	56	52	51	36	19
	non-F.F.H.	283	306	320	253	226
II.	F.F.H.	12	16	33	18	19
	non-F.F.H.	83	135	159	96	177
III.	F.F.H.	—	-	—	29	70
	non-F.F.H.	—	—	—	129	299

In-Cluster Percentage of *Fortune* Five Hundred Occupants

Office Cluster	Year 1972	1977	1981	1985	1990
I.	16.5%	14.5%	13.8%	12.5%	7.8%
II.	12.6%	10.6%	17.2%	15.8%	9.7%
III.	—	—	—	18.3%	19.0%

Across-Cluster Percentage of *Fortune* Five Hundred Occupants

Office Cluster	Year 1972	1977	1981	1985	1990
I.	82.4%	76.5%	60.7%	43.4%	17.6%
II.	17.7%	23.5%	39.3%	21.7%	17.6%
III.	—	—	—	34.9%	64.8%

Source: Information from *Orlando City Directory,* R.L. Polk and Company, Publishers, various years

Fortune Five Hundred is an indication of the relative exclusiveness among major suburban clusters.

The evidence in Exhibits 4a and 4b depicts an unambiguous pattern consistent with transitory dominance and exclusivity. For office clusters in both cities there is a distinct pattern of early high percentages of *Fortune* Five Hundred offices, both in-cluster and across-cluster, followed by decline in both percentages as new major clusters are established.

The patterns evident on Exhibits 4a and 4b are completely consistent with the expected pattern of filtering. That is, they fit with the idea that a suburban cluster enjoys an initial preferred status in the market which fades over time for the reasons discussed earlier. Hence, as new competitors appear, the park loses its preferred status, dropping to a lower position in the market.

Rental Rate Structure and Evidence about Filtering

In the previous section we presented evidence of sharp compositional changes in occupancy for the major suburban office clusters of Jacksonville and Orlando over the last two decades. We concluded that the changes are consistent with filtering. However,

Exhibit 5
Quoted Rental Rates for Orlando Office Buildings by Vintage Groups and Year

Quoted Rent by Year	Building Construction Date					
	<1966	66–70	71–75	76–80	81–85	86–90
73	4.68	5.28	5.51			
74	4.61	5.52	5.54			
75						
76						
77	4.60	5.40	5.46	6.00		
78	5.28	6.13	6.21	7.50		
79	5.27	6.13	6.22	7.45		
80	5.97	7.41	7.61	9.16		
81	6.94	8.59	8.84	10.05	8.00	
82	8.05	10.18	10.22	11.64	11.68	
83	8.72	10.43	10.30	11.50	12.37	
84	9.04	11.47	10.95	12.43	13.30	
85	9.54	11.64	11.34	12.40	13.54	
86	10.04	12.04	11.13	12.36	13.72	13.25
87	10.20	12.02	11.34	12.28	13.81	14.47
88	10.94	12.03	11.61	12.17	13.74	14.86
89	11.51	12.85	12.01	12.50	13.85	15.35
90	11.57	13.16	12.21	12.66	13.90	15.28
91	11.67	13.49	12.17	12.70	13.76	15.16

Source: Proprietary data of Barbour and Monroe; Market Research and Analysis, Orlando, Florida. Data were compiled by the authors.

to constitute filtering, the changes would be accompanied with a pattern of decline in the relative market rental rates of older clusters.

In this section we examine the time path of relative rental rates among clusters of buildings in both Jacksonville and Orlando. The data from Orlando are of special interest. First, Orlando is relatively unconstrained topographically and governmentally. Thus, the spatial distribution of land uses is likely to represent economic relationships about as clearly as might be expected to occur. Second, the proprietary data set for Orlando, created by the firm of Barbour and Monroe beginning in 1973, is exceptionally consistent and complete for office market data. Barbour and Monroe has provided us with proprietary data records for nearly every office building in the Orlando area market larger than approximately 10,000 square feet. Since the data begin in 1973 they provide a record of the Orlando office market that spans almost two complete major office market cycles.

Orlando

From the Barbour and Monroe data we have assembled two overviews of quoted rental rates relating to filtering. Exhibit 5 shows the pattern of quoted rental rates from 1973 to 1991, for the buildings grouped by age cohorts. There is a definite vintage effect. Generally, with each new vintage, the average rental rate for buildings of an older

Exhibit 6

Average Quoted Rental Rates for Selected Building Groups in Orlando VINTAGE 1966–1975 and the Most Recent Major Suburban Cluster

Year	Other Downtown and Near-downtown	Downtown Highrise	Other Suburban	Suburban Cluster I	Suburban Cluster II	New Suburban Cluster
73	5.47	5.87	5.32	5.50	5.50	
74	5.41	6.20	5.43	5.75	5.53	
77	5.22	6.19	5.45	5.50	5.31	
78	6.03	7.69	6.07	6.50	6.14	
79	6.06	7.69	6.08	6.50	6.14	
80	6.90	10.13	7.46	8.03	7.72	
81	7.83	11.88	8.71	9.50	8.56	
82	8.63	13.19	10.02	11.50	11.00	
83	8.82	14.19	9.96	12.00	11.39	
84	10.12	14.66	10.54	12.53	12.43	15.50
85	10.30	15.48	11.06	12.51	12.43	14.80
86	11.12	15.73	10.72	12.55	12.14	14.93
87	11.91	16.26	10.78	12.53	11.92	15.25
88	11.75	16.56	11.05	13.05	11.50	15.74
89	12.17	17.37	11.63	13.63	12.50	15.79
90	12.43	16.00	11.99	13.48	11.93	16.00
91	12.44	16.25	12.17	13.48	11.50	15.49

Source: Proprietary data of Barbour and Monroe; Market Research and Analysis, Orlando, Florida. Data were compiled by the authors.

vintage falls farther behind the average rate for the latest vintage. This is precisely the pattern that filtering implies. The only exception to this pattern, the 1966 1970 vintage, may not be inconsistent with our expectations, since the buildings represented are heavily weighted toward a major suburban cluster, and also include one of the major downtown highrises of the period. Thus, Orlando's historic record of rental rates, taking account of vintage, is largely consistent with the process of filtering.

The Barbour and Monroe data set enables us to test whether downtown highrise buildings and suburban office parks in Orlando exhibit any market advantage over time, relative to other classes of office buildings. Moreover, we have access to a period of special interest in this study. From the late 1960s to 1983, there were four major downtown highrise buildings and two major suburban office clusters amid a large number of other office buildings. In 1983 and 1984 began the explosive growth of a new suburban cluster, thus, potentially a new order in the suburban office market.

In Exhibit 6 we examine the rental rate experience for the pertinent subgroups in the late 60s to early 70s vintage comparing it to the major suburban cluster that followed. Group one is non-highrise downtown and near-downtown offices. Group two is the four downtown highrises. Group three is the non-clustered suburban offices. Groups four and five are the original suburban clusters, and group six is the newest suburban cluster.

It is immediately apparent from the data that the downtown highrises and the suburban clusters enjoyed a stronger growth in rental rates than did the non-cluster and non-highrise groups. Initially rental rates differed by no more than 10% among the groups of the late '60s to early '70s vintage. By 1983, the threshold year of the newest suburban cluster, the downtown highrise offices quoted rental rates 60% higher than the lowest group, and 18% to 24% higher than the clustered offices. Thus, the picture up through 1983, and the explosive emergence of a third suburban cluster, is strongly consistent with our expectations of filtering.

The emergence of the new suburban cluster offers a second test of our expectations. The pertinent questions are, What happens to the downtown highrise rental rates, and, What happens to the older suburban clusters? The answers are unambiguous. The downtown highrise holds its relative market strength. Even rental rates at the new suburban center fail to eclipse those of the older downtown highrises despite the newer vintage. Evidently the uniqueness of the downtown location, together with the visual prominence proves extremely durable. In fact, in a market that is badly overbuilt, the old downtown highrises continue to evidence increases in quoted rates, while the new suburban cluster evidences reductions.

The effect of the new suburban cluster on the older suburban clusters is sharp. While at the outset of the new cluster (1984) the older clusters quote rental rates between 18% and 24% above the non-clustered buildings, this differential has faded to a maximum of 11% by 1991, and has become negative for one of the original clusters. This result is consistent with our expectation; clustering of suburban offices provides resistance to filtering, but not indefinitely.

Jacksonville

Though the data available from Jacksonville are much less complete, they still provide evidence relevant to filtering. 1978 and 1988 rental rate data are available for the major clusters examined earlier, for buildings in several smaller suburban clusters, and for the major buildings of the downtown.

The primary question, as with the Orlando data, is whether the tenant changes documentation in the previous section are accompanied by relative declines in rental rates. Exhibit 7, below, gives evidence.

To facilitate comparison, the average cluster rental rates are shown as a ratio to the rental rate for the principle downtown highrise during the period, the 34-floor Independent Life Building. The four clusters reported in this section are numbered as before. Clusters IV through IX are smaller suburban clusters.

The results are fully consistent with the pattern of filtering. The original suburban cluster, I, predates the others by a decade and more. Despite this, in 1978, it was only about 11% below the highest suburban cluster. However, as two newer clusters expanded in the following decade, Cluster I not only fell relative to the reference downtown highrise, but it fell relative to the two emerging suburban clusters. By 1988 the newest major cluster, IV, exceeded Cluster I in average rental rate by 38%. By then, Cluster II, which in 1978 dominated suburban rental rates, had also been eclipsed by Cluster IV by 18%. Hence the data indicate the pattern of sequential dominance

Exhibit 7

Relative Rental Rates by Suburban Office Cluster (as ratio of "100%" downtown rate)

Cluster	No. of Bldgs	Approx. Space (000's)	1978 Rate	1978 Reference Bldg, 1988 Rate
I.	31	800	0.76	0.61
II.	5	470	0.85	0.71
III.	31	2,093	0.79	0.71
IV.	22	1,250	0.79	0.84
V.	4	143	0.79	0.53
VI.	3	326	0.76	0.55
VII.	2	2	0.79	0.68
VIII.	3	99	0.85	0.59
IX.	2	78	0.73	0.50

Reference rates: 1978 Independent Life Bldg., $8.25
1988 Independent Life Bldg., $19.00

Source: Selected editions of *Jacksonville Magazine,* Jacksonville Chamber of Commerce. Also proprietary data of Coldwell Banker Commercial Real Estate Services and Property Services, Inc., of Jacksonville, Florida

consistent with the tenant movements reported in the previous section, and consistent with a pattern of filtering.

Also apparent from Exhibit 7 is that the rental rates of each suburban office cluster decline consistently relative to the prime downtown rates, although in real terms they did not decline. Further, small clusters generally experience greater decline than larger suburban clusters. Hence, Jacksonville office rental rates for the decade from 1978 to 1988 confirm the patterns shown for Orlando.

Factors That Mitigate Filtering

Does this discussion imply that the currently prime suburban office location must become secondary space, as has happened in the past? Some factors may deter such filtering. The larger the suburban center the more likely that it will benefit from agglomeration economies which may lead to longevity for the site and warrant reinvestment in modernization. There may be a critical mass at which a true suburban node comes into existence with a long-term outlook as has happened in some larger metropolitan areas. Another stabilizing factor could be the transportation network. Certain points in the suburban transportation network may be less vulnerable to isolation than others, lending greater long term stability to those locations. If a cluster is sufficiently large, it may influence the transportation network in its form.

The market cycle may shorten or prolong the life of a suburban center as prime space. For example, the overbuilding which followed the tax act of 1981 has resulted in a slowdown in office construction, and the Tax Reform Act of 1986 greatly reduced the tax incentives for construction. These market conditions have led to less risk-taking on

the part of developers because investors and lenders have become more conservative. Lenders are taking equity positions and a larger voice in decisionmaking and are more likely to require anchor tenants prior to committing funds. These tenants in turn also are having an expanded role in location decisions, and the safest alternative has appeared to be locating in existing office parks. However, the reoccurrence of a strong market growth could reverse this scenario.

Finally, public policy plays a large role in location decisions today. In Florida, large-scale developments such as office parks and large buildings are required to go through the development of regional impact (DRI) process. This process is time-consuming and may be costly both in terms of time and concessions required of developers. It is therefore easier to build in an existing office park than to initiate a new major development. Other growth management legislation in Florida requiring infrastructure capacity to be available to support new development and the increased use of impact fees and other assessments may inhibit the commencement of new nodes of office development.

In Jacksonville and Orlando, a combination of these factors that mitigate filtering appear to favor the currently prime suburban center. Therefore they may have a longer life as prime space than previous area office parks, but the decline of the park may still occur as technological evolution and transportation enhancements continue.

Notes

[1]For examples of the suburban office location literature, see Archer [1], Kutay [14], Chinitz [5], Gad [11], Erickson and Wasylenko [10], Kutay [15], Tauchen and Witte [19].

[2]There is an extensive literature on housing filtering. For example, see Grigsby [13]. For a more recent treatment, see Weicher and Thibodeau [21].

[3]The modelling and econometric issues in testing for this type of filtering are presented in Weicher and Thibodeau [21].

[4]Some buildings are built specifically to meet the needs of major anchor tenants.

[5]This is based on resources of the authors.

[6]The relevant office parks proved to be unambiguous after examination of the office markets of the two cities over the relevant period.

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