

# METROPOLITAN AREA COST COMPETITIVENESS, GROWTH AND REAL ESTATE PERFORMANCE

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Recent trends highlight the changing fortunes of regional, state and local economies in the United States. During the 1980s, much attention was given to the frost belt/sun belt dichotomy.<sup>1</sup> There was talk of a bi-coastal economy, with the nation's east and west coasts leading the way during the mid-and late-1980's economic recovery while interior regions lagged.<sup>2</sup> However, in the 1990s, the tables have turned. Unemployment rates on the east and west coasts are not systematically lower than they are in other parts of the country.

Many studies have searched for the underlying causes of varying patterns of growth. Several explanations have revolved around differing cost structures, and cost of doing business studies have proliferated. For those states and localities which fare favorably in specific comparative studies, the results are used as promotional tools. For those which do not fare so well, economic development officials quickly point out the study's shortcomings.

Erickson provides an excellent review of the history of business climate studies.<sup>3</sup> Most important, he notes the changing components of the overall cost structure. In reviewing earlier studies from the 1950s and 1960s, Erickson points out that (p. 63) "...comparative state and local taxation represented a substantial section of each of these studies." Over time however, concern with these direct costs was joined, and in some cases dominated by, concern with cost components related to productivity, such as right-to-work laws, the level of remuneration and the educational attainment of the work force. Erickson also highlights the growing concern with comparative costs of energy and quality of life factors. Clearly, depending on how they are defined, business costs go well beyond the traditional emphasis on wages, salaries and taxation.

This article provides an updated look at metro area cost competitiveness, its implications for real

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estate markets and likely future trends. The article summarizes the evidence linking costs and growth; ranks metropolitan areas according to several cost categories; and discusses the extent to which differing cost structures help explain real estate performance. Lastly, the article provides a forecast of future cost trends and the implications for real estate markets along with a summary and conclusions.

### **A Summary Of The Evidence Linking Cost Structure And Economic Growth**

The research community has devoted considerable time and effort to examining the impacts of relative cost structures on regional economic growth and activity. Early results neither confirmed nor denied a causal relationship between business climate rankings and state industrial growth.<sup>4</sup> More recently however, the emerging consensus is that costs, whether defined narrowly (direct costs of doing business, such as labor, tax and energy costs) or more broadly (i.e., direct costs plus cost of living and quality of life indicators), do impact regional economic fortunes. At the same time, the results are not uniform; they vary on a case by case basis. In some instances, the impacts are marginal. In others, relative cost structures explain considerable amounts of inter-regional growth disparities.

Bartik provides a comprehensive and up-to-date review of the literature.<sup>5</sup> Most importantly, he summarizes the results of several studies which relate directly to some cost factors which are utilized in this article. Specifically, he offers a review of 79 studies to gauge the findings as they relate to the impacts of wage and tax structures on state and local economic growth. Over half the studies reviewed measure at least one negative and statistically significant wage effect. These effects measure the degree to which relatively high/low regional wage structures inhibit/encourage economic growth and activity. Most of the studies also find significant and negative long run wage elasticities which measure the responsiveness of one variable, business activity, to changes in another, wages.

In addition, the vast majority of studies find at least one negative and statistically significant tax effect on regional economic growth which adds to the evidence that relative tax burdens influence the distribution of economic growth and activity.

Blair and Premus note the growing importance of nontraditional cost factors, including regional quality of life, in the industrial location decision.<sup>6</sup> They also highlight the pivotal role of market access in overall regional cost structures, especially in light of the ongoing technological changes in the economy.

The analyses of Bartik and Blair and Premus suggest that examining relative cost structures is an

important step in accounting for differences in regional economic fortunes. Indeed, comparative cost of doing business studies have proliferated at the state and local level. However, several studies stand out. Beginning in 1979, *A Study of Business Climates of the Forty-Eight Continuous States of America* was first published by Alexander Grant and Company.<sup>7</sup> The study has been updated several times. In October 1981, *Inc.* magazine published the first in a series of studies entitled "Report Card on the States."<sup>8</sup> For metropolitan areas, *Inc.* also published annual reports on the nation's fastest growing cities.<sup>9</sup> *Fortune* also published an annual report on "The Best Cities for Business."<sup>10</sup>

In general, the studies tend to focus on a single aspect of cost: either labor or tax, or more recently, the environment for globalization. This partly indicates that there is not one best way to approach an examination of regional cost competitiveness. Thus, we view cost broadly to produce rankings based on traditional direct costs, cost of living, market access and quality of life. We also extend the analysis by comparing earlier cost rankings to subsequent real estate investment performance and then speculate on how well one might do in the current market if a low-cost strategy is followed.

### **Metropolitan Area Cost Competitiveness: Some Comparisons**

*Selection of Metro Areas.* An Arthur Andersen & Co. survey asked 1,724 real estate executives their opinions on those metropolitan areas likely to show the most and least potential for return on real estate investment.<sup>11</sup> Their responses provide a workable set of urban areas which differ according to size, region and recent performance. In addition, Kasarda put forth a list of smaller metropolitan areas which he thought offered considerable real estate potential.<sup>12</sup> His suggestions also are incorporated into the set of 50 metro areas which are the focus of this study. These areas are listed in Appendix A.

*Cost Categories.* Following Erickson's observations, we have opted for a broad definition of regional cost structures. Four cost categories are developed:

1. Direct costs of doing business which include labor, tax, energy, facilities and transportation costs.
2. Cost of living indicators which include median housing prices and state and local per capita tax burdens.
3. Market access measures which include growth between 1980 and 1990 in the share of the U.S. population accounted for by each region and an international presence index generated by Moran Stahl & Boyer, a location consulting firm.<sup>13</sup>
4. Quality of life indicators which include crime rates and access to physicians.

Data sources are identified with each table.

**TABLE 1\***

Quality-Adjusted Direct Business Composite Cost Indicator—Top Five, Bottom Five (Direct business costs adjusted for worker productivity.)

Top Five		Bottom Five	
Austin	64.8	Honolulu	144.0
Raleigh-Durham	70.7	Pittsburgh	146.0
Fort Worth	71.6	New York	146.7
Orlando	71.6	Detroit	157.2
Phoenix	74.2	San Francisco	163.2

Sources: Labor Costs: Wages and Earnings . . . U.S. Bureau of Labor Statistics. *Employment and Earnings*; Unemployment Compensation . . . Pennsylvania Department of Labor and Industry. *Pennsylvania's Unemployment Insurance Program Compared to Other States*; Tax Costs: U.S. Department of Commerce. *State Government Tax Collections*; Energy Costs: Electricity . . . Edison Electric Institute; Gas . . . American Gas Association. *Gas Facts*; Facilities Costs: *Means Building Construction Cost Data*; International Transportation: "The Best Cities for Business," *Fortune*. November 2, 1992.

\*For complete listing of Tables 1-9, contact Kenneth M. Lusht, 409 BAB, Pennsylvania State University, University Park, PA 16802.

*The Results.* Direct business cost information for each of the metropolitan areas was tabulated. Labor costs were represented by a weighted average of the following: average annual pay (weight = .45), average hourly wages (weight = .45) and two measures of unemployment compensation tax burdens (each with a weight of .05). These weights are representative of the wage/unemployment compensation mix in total labor costs. Tax costs were represented by corporate profit tax payments per private sector job. Corporate profit and unemployment compensation tax burdens were measured at the state level, rather than metro area. Energy costs were represented by an average of commercial and industrial gas and electricity rates and were also measured by state, as opposed to individual metro areas. Facilities costs were measured by the Means construction cost index. Transportation costs present some problems. We question the degree to which traditional proxies for transportation costs, such as gasoline taxes and highway user fees/taxes, are applicable. Given the internationalization of the economy and the growing importance played by computerized information-sharing, such proxies appear to be outdated. We followed Saporito who highlighted the increased importance of access to international travel in the modern economy.<sup>14</sup> Like Saporito, we used the number of international flights available to the residents of a region as a proxy for transportation costs.

Table 1 shows the adjusted direct business composite cost indicator for the top and bottom five of the 40 metro areas where information is available for five categories. The indicator shown represents a weighted average of the five direct cost components, weighted for work force productivity. Labor costs are given a weight of .50; tax, energy and facilities costs each receive a weight of .15; transportation costs receive a weight of .05. These weights reflect the relatively large share of total direct costs accounted for by labor-related costs. The original international flight data had to be adjusted to fit into our scheme so that relatively low/high flight access translates into relatively high/low transportation cost measures for purposes of the composite indicator. Finally, the weighted average is quality adjusted by dividing it into a regional work force productivity measure developed by Moran Stahl & Boyer and used by Saporito.

The Moran Stahl & Boyer measures take into account trends pertaining to employment, wages, exports, value-added per worker and high-tech jobs. A given region may be characterized by high direct business costs, but those costs may be offset by a highly productive workforce. Likewise, some of the potential advantages for a low cost region may be lost due to a relatively unproductive work force. For example, Charlotte is home to a below average cost structure for four of the five direct cost categories. However, when the composite indicator is divided by the productivity measure (which indicates that its work force is relatively unproductive), the real cost of doing business is actually above average.

There is a noticeable regional slant to the direct cost indicators. Those areas characterized by relatively strong cost competitiveness tend to be located in the south and southwest, especially Texas. Texas does not have a corporate profits tax which contributes heavily to its strong showing. The only non southern regions in the top 12 are Seattle, ranked eighth, and Denver, ranked tenth. Those regions which are least competitive tend to be the larger metro areas of the northeast and California. Nine of the ten least competitive regions fall into one of these categories.

There are two ways to consider the relationship between the regional cost of living and local economic growth and development. First, the empirical literature points to a positive relationship between economic development and the cost of living, largely because increased demand pushes housing costs higher. At the same time, a high regional cost of living can be viewed as an impediment to future economic growth and activity. For example, much attention was given to the labor shortages in the northeastern United States during the mid and late 1980s. Employers had difficulty

TABLE 2

Composite Cost of Living Indicator—  
Top Five, Bottom Five

Top Five		Bottom Five	
New Orleans	75.2	New York	164.9
Memphis	76.3	Anaheim-Santa Ana	168.4
Birmingham	77.7	District of Columbia	171.7
Kansas City	78.1	San Francisco	180.3
Ft. Myers	78.7	Honolulu	233.6

Sources: Median Housing Prices: National Association of Realtors. *Home Sales*; State/Local Taxes: U.S. Department of Commerce. *Government Finances*.

attracting qualified workers to the region due to the high cost of living.

Table 2 presents a composite indicator of regional cost of living, consisting of housing prices and tax burdens weighted equally. A comparison of the top and bottom five areas sheds considerable light on the regional slant to the findings. New Orleans is home to the lowest cost of living, followed by eight other southern regions. Pittsburgh falls into the 10th slot, followed by four other regions from the south. Regarding the bottom five (highest cost), all are from either the northeast or the Pacific coast. Honolulu has the highest cost of living by a considerable margin.

Two measures of market access are utilized in this study: the 1980-1990 change in the population and, in light of the growing internationalization of the economy, a measure of local international presence developed by Moran Stahl & Boyer and used by Saporito. Included in the international presence index are measures of the number of foreign banks, consulates, service firms and regional employment in foreign-owned companies. Goldberg ranked metropolitan areas using a different measure of multiculturalism.<sup>15</sup> While his results are generally similar with those generated by Moran Stahl & Boyer, his measures are generated for six fewer metro regions from among our metropolitan areas. For this reason we utilize the Moran Stahl & Boyer measure.

A composite measure of market access is shown in Table 3 of the top and bottom five areas in which both population (weight = .75) and international access (weight = .25) data are available. These weights are used to indicate that while the economy is becoming more global, domestic markets still play a relatively large role. As with several other cost factors, the more competitive regions, in terms of market access, tend to come from the south and west. The bottom five are not as easily generalizable, although there is a heavy midwest presence.

TABLE 3

Market Access Composite Indicator—  
Top Five, Bottom Five

Top Five		Bottom Five	
Los Angeles	89.5	Cleveland	178.7
District of Columbia	132.3	Detroit	178.7
Atlanta	133.1	Memphis	179.6
Houston	133.8	Birmingham	184.2
San Diego	142.6	Pittsburgh	188.0

Sources: Population: U.S. Department of Commerce. *State and Metropolitan Area Data Book*; International Presence: "The Best Cities for Business," *Fortune*, November 2, 1992.

Regional quality of life infers many things to many people. Fosler captures the vastness of the concept:<sup>16</sup>

The general quality of life affects the economy in two principal ways: it is a direct source of business enterprise (e.g., tourism, travel, recreation, leisure); and it is an important factor in attracting and retaining businesses and workers. States affect the quality of life through most of their actions in other areas but, in general, by providing good public services, directly providing or encouraging the private provision of other desirable public amenities (e.g., hospitals, educational institutions, museums, cultural activities, etc.) and assuring an attractive and healthy physical environment.

Clearly, there are varied and numerous ways to measure quality of life. Two of the more commonly used measures, the crime rate and access to physicians (i.e., the number of physicians per 100,000 population) are shown in Table 4. The data are expressed in index form with the U.S. average = 100 for the crime rate and Raleigh-Durham = 100 for the access measure. (Raleigh-Durham is home to the highest physician/population ratio.) Low/high index readings for the physicians access indicator correspond with low/high cost structures.

Unlike most other cost measures, there is no regional slant to the results shown in Table 4, nor does quality of life appear to be related to metro area size, at least when measured by crime rates. For instance, the lowest crime rates are found in areas from Pennsylvania to California. The regions range in size from Washington, D.C. (the result of including Virginia and Maryland suburbs in the region) to Oxnard-Ventura. Hence, generalizations are not warranted. However, physician access appears to vary according to metro area size. Except for Raleigh-Durham, the highest physician/population ratios are in relatively large metropolitan regions.

TABLE 4

Quality of Life Indicators  
(U.S. Average = 100 for rate; Raleigh-Durham = 100 for access)

	Crime Rate	Access to Physicians		Crime Rate	Access to Physicians
Anaheim-Santa Ana	103.4	152.0	Memphis	126.1	151.9
Atlanta	165.3	161.8	Miami	244.1	135.4
Austin	151.0	166.0	Minneapolis/St. Paul	97.9	155.2
Baltimore	110.9	133.9	Naples	121.7	168.1
Birmingham	96.0	148.1	New Orleans	151.3	140.2
Boston	n.a.	125.1	New York	154.3	126.7
Charlotte	138.3	173.5	Oakland	129.9	167.2
Chicago	n.a.	146.7	Orlando	150.6	167.2
Cincinnati	85.1	151.9	Oxnard-Ventura	66.4	167.2
Cleveland	81.5	139.7	Philadelphia	81.6	144.1
Columbus	116.8	159.5	Phoenix	149.6	162.4
Dallas	190.5	160.6	Pittsburgh	59.1	146.3
Denver	114.8	149.4	Portland	128.9	148.7
Detroit	121.5	161.2	Raleigh-Durham	102.9	100.0
District of Columbia	96.0	136.7	Riverside-San Bernardino	n.a.	170.6
Fort Worth	166.6	175.2	Sacramento	122.2	158.0
Fort Lauderdale	154.5	163.1	San Diego	128.2	156.5
Fort Myers	87.2	171.0	San Francisco	116.5	110.8
Fort Pierce	132.2	173.0	San Jose	84.3	147.5
Hartford	n.a.	144.1	Santa Rosa	83.9	161.5
Honolulu	108.6	156.8	Seattle	131.5	145.1
Houston	147.5	154.7	Stockton	146.8	172.2
Kansas City	126.8	158.4	St. Louis	n.a.	153.2
Las Vegas	117.0	174.4	Tampa/St. Petersburg	149.2	164.0
Los Angeles	129.3	148.6	West Palm Beach-Boca Raton	171.2	161.2

Sources: U.S. Department of Commerce. *State and Metropolitan Area Data Book*.

### Regional Cost Structures And Real Estate Performance

What role, if any, do regional cost structures play in the performance of local real estate markets? We used vacancy rates as a proxy for performance, with Tables 5 and 6 providing information on the top and bottom five 1989 and 1990 rates for commercial and industrial properties.

While there was a noticeable regional slant to relative cost structures, and costs tended to vary with metro area size, the rankings in Tables 5 and 6 suggest generalizations cannot be drawn with respect to vacancy rates. It is enlightening to examine the regions ranked at the upper or lower extremes. Relatively high regional cost structures do not necessarily correspond with a poor market showing.

### Relative Regional Cost Structures: Some Speculation About Future Trends

Two trends are likely to go a long way in shaping the U.S. economy over the next several years. The first relates to the continuation of the much-publicized shift to a more global economy. Simply put, sound investment decisions will be made,

more and more, in an international setting, as opposed to a strictly local setting. Second, the structural changes taking place in the economy, reported so often in both the popular and scholarly literature, are expected to continue and intensify. More important aspects of this structural change revolve around efforts to get the federal budget deficit under control, defense-related cutbacks and demographic changes.<sup>17</sup>

The result is expected to be a U.S. economy that is not as likely to fall into the boom-bust cycle as it has done frequently in the past. Although there will continue to be cycles, current expectations are for a very moderate, yet sustainable, economic expansion in coming years. Against this broad backdrop, we can put forth some specific thoughts on future trends pertaining to cost competitiveness.

First, it is important to point out that regional cost structures do not change overnight. Certain regions, especially in the southern United States, and, to some degree, in the west have maintained a historical advantage with respect to the cost of doing business. These regions are expected to

**TABLE 5**

Commercial Office Vacancy Rates:  
1989 and 1990 (percent)—Top Five, Bottom Five

Top Five		Bottom Five	
Honolulu	5.1	Dallas	26.0
Las Vegas	12.3	Phoenix	26.6
San Jose	14.0	Houston	26.6
Cleveland	14.5	Austin	30.0
District of Columbia	14.8	West Palm Beach-Boca Raton	30.1

Sources: *Coldwell Banker Commercial Office Vacancy Index of the United States.*

maintain that advantage relating to direct business costs, the cost of living and market access (especially population growth). Regions such as New York City, the District of Columbia, Los Angeles and San Francisco will not soon become low-cost centers of economic activity, with respect to direct business costs and the cost of living.

At the same time, we expect some lessening of regional cost differentials, especially as they pertain to direct business costs and the cost of living. As economic activity expands at a relatively rapid rate in low-cost metro areas, upward pressure on wage rates, taxes and prices will be the end result over time lessening, but certainly not eliminating, their comparative cost advantage.

As a result, a second major trend likely to influence regional cost comparisons over the next decade is other cost-related components, especially market access and local quality of life. These too will play an increasingly important role in investment decisions. As regional differentials in direct business costs and the cost of living lessen, the role of these other factors in the decision-making process will grow.

Market access concerns are likely to play a key role. Here, demographic trends are likely to continue which favor metropolitan areas in the south and the west. Several population forecasts utilized by Kasarda suggest that the south and the west will continue to expand at a relatively rapid rate with the industrial north lagging behind.

At the same time, a third major trend, also revolving around market access, is expected to favor the largest cities in the U.S. Historically, international commerce has been concentrated in such U.S. cities as New York, Chicago and San Francisco. In light of the growing internationalization of the economy, certain relative advantages that these cities and their surrounding communities currently maintain will be enhanced.

Unfolding events will benefit other large cities which have the capacity to take advantage of the opportunities provided by the global economy.

**TABLE 6**

Industrial Office Vacancy Rates: 1989 and 1990  
(Percent)—Top Five, Bottom Five

Top Five		Bottom Five	
Portland	1.8	Dallas	7.9
Seattle	2.0	Cleveland	9.1
Detroit	3.0	Houston	9.5
Cincinnati	3.4	Hartford	11.1
Orlando	3.6	Miami	11.8

Sources: *Coldwell Banker Commercial Industrial Office Vacancy Index of the United States.*

Seattle already has capitalized on U.S. trade relationships with Pacific-Rim nations. Miami is a center of Latin American commerce. The larger Texas metro areas might benefit from the North American Free Trade Agreement.

By the year 2000, metropolitan areas in the south and west are expected to maintain their relatively favorable cost structures. Any lessening in direct business cost differentials and cost of living advantages is likely to be offset by relatively favorable developments on the market access front, especially in terms of population growth. On the one hand, economic globalization will favor the nation's larger cities, traditional centers of international commerce. Conversely, some of the nation's non-traditional larger cities, such as Seattle and Miami, also are likely to benefit greatly from growth in international trade.

#### Is Growth Linked To Real Estate Performance?

The consensus view that metropolitan cost structure is associated with economic growth does not necessarily translate into investment opportunities. The supply side of the equation also must be considered, and there is indirect evidence that in the past the market has recognized the cost/growth link, and (more than) fully discounted the resulting real estate investment opportunities. Table 7 shows the lowest and highest vacancy rates for office and industrial properties in 1989-90, along with a ranking of their respective states measured as the average cost rankings from the Alexander Grant and Inc. studies, as summarized in Biermann.<sup>18</sup>

Though the methodology of some early studies has been criticized as relatively crude, it is difficult to dismiss the negative relationship between comparative costs in the early 80s and real estate performance almost a decade later. Clearly, the market recognized the link between cost and growth, and the supply (more than) anticipated growth.

There is also evidence that current low cost areas have been identified. Results from the 1992

Arthur Andersen survey of market participants and observers are summarized in Table 8 (top five and bottom five). They show a close relationship between what we have identified as low cost areas and what the survey respondents identify as areas with high and low real estate investment potential.<sup>19</sup>

#### Will History Repeat?

Despite the poor track record of following a low cost strategy to locate development and the survey evidence that low cost areas are targeted for investment, opportunities may still remain in presently depressed markets.

Table 9 shows changes in capitalization rates from 1985 to 1994 for three of our lowest cost cities—Dallas, Houston and Phoenix—and nationally.<sup>20</sup> The key observation is that the trends are consistent; capitalization rates moved significantly higher during this period, and the changes for our selected growth areas were of similar magnitudes to the changes nationally. These data suggest there

is time to take advantage of the historical link between the cost of doing business and future growth.

#### Summary And Conclusions

We have developed rankings of metropolitan areas on the basis of a wide array of cost of doing-business measures. The results have a strong regional slant with the South and Southwest looking relatively better and the North relatively worse for most measures. While the link between cost structure and future growth is reasonably well established, the link between growth and real estate investment performance is not. Over the past decade, the market has recognized the cost-growth link and more than fully discounted the resulting demand for space. Given the strong association between our current cost rankings and those areas market participants have identified for low and high investment potential, it is tempting to conclude that it is once again too late to take advantage of future growth. However, the structure of capitalization rates over the recent past suggests that in the present case opportunities may remain.

TABLE 7

1981-83 Rankings

Office, 1989-90			
Lowest Vacancy		Highest Vacancy	
	1981-83 Rank		1981-83 Rank
Honolulu	NR†	Hartford	24
Las Vegas	18	Tampa	2
San Jose	6	Miami	NR
Cleveland	38	Denver	3
Washington, D.C.	NR	Ft. Worth	1
Charlotte	14	Dallas	NR
Seattle	20	Phoenix	9
Philadelphia	39	Houston	NR
Boston	22	Austin	NR
San Francisco	NR	West Palm	NR
Average	19		8
Industrial, 1989-90			
Lowest Vacancy		Highest Vacancy	
	1981-83 Rank		1981-83 Rank
Portland	31	Dallas	1
Seattle	20	Cleveland	38
Detroit	40	Houston	NR
Cincinnati	38	Hartford	24
Orlando	2	Miami	2
Average	26		16

†Not Ranked

Sources: (1981-1983 Rankings) Calculated from Biermann (see References).

**TABLE 8**

1992 National Real Estate Opinion Survey—  
Top Five, Bottom Five

Most Potential—Top Five		Most Potential—Bottom Five	
Dallas/Ft. Worth	26%	Boston	3%
Atlanta	22%	Cincinnati	3%
Houston	22%	Kansas City	3%
Las Vegas	18%	Minneapolis/St. Paul	3%
Seattle	17%	New York	3%
Least Potential—Top Five		Least Potential—Bottom Five	
Boston	36%	St. Louis	4%
New York	29%	Memphis	3%
Los Angeles	19%	Minneapolis/St. Paul	3%
Detroit	18%	Pittsburgh	3%
Hartford	16%	Cincinnati	2%

Sources: Arthur Andersen (see References).

**TABLE 9**

Capitalization Rates

	1985/4	1988/4	1992/4	1994/1*
<b>NATIONAL</b>				
Office	.083	.080	.091	.091*
Warehouse/Distribution	.094	.090	.097	.097
Retail	.094	.087	.097	.096
<b>DALLAS</b>				
Office	.073	.089	.097	.097
Warehouse/Distribution	.089	.089	.100	.095
Retail	.092	.097	.098	.095
<b>HOUSTON</b>				
Office	.101	.097	.104	.102
Warehouse/Distribution	.099	.099	.104	.094
Retail	.101	.098	.096	.106
<b>PHOENIX</b>				
Office	.086	.088	.097	.092
Warehouse/Distribution	.090	.092	.096	.092
Retail	.084	.087	.098	.097

\*For National, data is fourth quarter, 1993.

Sources: *National Real Estate Index Market History Reports* (see References).

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20. *National Real Estate Index History Reports*. 1994. Liquidity Fund, Emeryville, California (July).

**APPENDIX A**

Anaheim-Santa Ana, Atlanta, Austin, Baltimore, Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Columbus, Dallas, Denver, Detroit, District of Columbia, Fort Worth, Fort Lauderdale, Fort Myers, Fort Pierce, Hartford, Honolulu, Houston, Kansas City, Las Vegas, Los Angeles, Memphis, Miami, Minneapolis/St. Paul, Naples, New Orleans, New York, Oakland, Orlando, Oxnard-Ventura, Philadelphia, Phoenix, Pittsburgh, Portland, Raleigh-Durham, Riverside-San Bernadino, Sacramento, San Diego, San Francisco, San Jose, Santa Rosa, Seattle, Stockton, St. Louis, Tampa/St. Petersburg, West Palm Beach-Boca Raton.