Preferred Office Locations

Comparing Location Preferences and Performance of Office Space in CBDs, Suburban Vibrant Centers and Suburban Areas

Emil Malizia

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Prepared for and Funded by the NAIOP Research Foundation

By
Emil Malizia

October 2014

About NAIOP

NAIOP, the Commercial Real Estate Development Association, is the leading organization for developers, owners, investors and related professionals in office, industrial, retail and mixed-use real estate. NAIOP comprises 15,000 members in North America. NAIOP advances responsible commercial real estate development and advocates for effective public policy. For more information, visit www.naiop.org.

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The data collection measures included in this report should be regarded as guidelines rather than as absolute standards. The data may differ according to the geographic area in question, and results may vary accordingly. Local and regional market performance is a key factor. Further study and evaluation are recommended before any investment decisions are made.

This project is intended to provide information and insight to industry practitioners and does not constitute advice or recommendations. NAIOP disclaims any liability for action taken as a result of this project and its findings.

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About the Research Team

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Both members of the research team conducted the interviews. The PI completed the performance analysis.

Acknowledgments

The research team wants to acknowledge those who provided invaluable assistance in conducting this research. For the survey of location preferences, Jim Anthony at Colliers International, Kevin Thorpe and Anna Taylor at Cassidy Turley, John Sikaitis at JLL and Maria Sicola and Faith Ramsour at Cushman & Wakefield helped the research team gain access to affiliated brokers and researchers. For the performance analysis, Don Jud at Jud & Associates advised about the measures.

CoStar provided access to its database through its CoStar University Program. Travis Fisher and David Eastsep from CoStar provided helpful suggestions on the methods and use of the database. CoStar technical support assisted on several occasions.

Margarita Foster, NAIOP's vice president for knowledge and research, provided sound guidance during the project and excellent reviews of draft versions of this report. Julie D. Stern, NAIOP's managing editor, carefully copy edited the report, improving it in many ways.

Executive Summary

Office brokers use the term "live, work, play" (LWP) to describe the places sought by many prospective tenants, places that offer a range of residential and retail options as well as other amenities, in addition to office space. Well-designed mixed-use infill projects in or near central business districts (CBDs) have attracted talent-seeking companies and young educated workers. One example is Bakery Square, the mixed-use, six-acre redevelopment of a former Nabisco factory near downtown Pittsburgh. Tenants include Google, university medical staff, upscale retailers and a hotel with structured parking. The historic property is in an affluent, densely populated, accessible area. The popular press has featured many other examples of LWP projects in big cities like New York and San Francisco.

After decades of suburban decentralization that created a multitude of single-use auto-oriented office parks, CBDs are being revived, most successfully in large metro areas with commuter rail transit. Another trend gaining momentum seeks to meet the demand for LWP environments in suburbia, where the large majority of the nation's office inventory is located. Single-use areas formerly devoted to retail centers and office parks are being redeveloped as LWP districts. For example, the former Villa Italia regional mall has been redeveloped as Belmar, a mixed-use, amenity-rich, commercial, residential and civic-oriented place served by public transit. Belmar has become the 22-block, 140-acre downtown for Lakewood, a suburb of Denver. In addition, smaller cities, towns and villages that once were independent but now are part of a metro area commuter shed may have the density, design features and mix of land uses that meet the demand for LWP places. Ballston, a compact, mixed-use neighborhood on the Metrorail Orange Line in Arlington, Virginia, near Washington, D.C., has a diverse combination of commercial, residential and public uses, and is a good example of this type of LWP location.

In this report, we refer to LWP places as "vibrant centers." These are defined as compact, connected, walkable, relatively dense mixed-use/multi-use, primarily employment-oriented places often served by public transit. Central business districts (CBDs) with sufficient size, scale, density and land use mix can be a region's strongest vibrant center. Employment-oriented town centers as well as suburban mixed-use redevelopments that have achieved critical mass also are vibrant centers.

The success of Bakery Square, Belmar and Ballston suggests that the location preferences of office space users may be changing. However, no systematic evidence exists about the preferences for or performance of vibrant centers, either downtown or in the suburbs, compared to typical single-use suburban office space. This study begins to fill this knowledge gap by addressing five questions:

1. Do office tenants prefer CBDs to suburban areas?

2. Do office tenants prefer suburban vibrant centers to typical single-use suburban environments?

3. Are office properties in CBDs performing better than those in typical single-use suburban office areas?

4. Are office properties in suburban vibrant centers outperforming those in typical single-use suburban office areas?

5. Are suburban vibrant centers preferred to or performing better than CBDs in their market areas?

To answer these questions about the location preferences of office tenants, we surveyed 128 real estate brokers leasing office space across the country and researchers associated with major brokerage firms. (See Appendices A and B.) To gauge office performance, we analyzed indicators drawn from the CoStar office property database. (See Appendices C and D.) This combination of expert opinion and accurate property-level data provides reliable information about emerging location preferences across major U.S. office markets and the comparative performance of office space in CBDs, suburban vibrant centers, and typical single-use suburban areas.

The findings in this report are robust and based on evidence rather than anecdotes. Answers to the five questions are provided on page 7 to summarize these findings. The performance results are summarized in Figures 1-3. Statistically significant conclusions are shown in bold.

Figure 1

Are Office Properties in CBDs Performing Better than Office Properties in Typical Single-Use Suburban Areas?

Measure	Conclusion	Result	Statistical Significance
Asking Rents in Q1 2013	**Yes***	Rents are $4.48 higher in CBDs	1% level
Vacancy Rates in Q1 2013	No	Vacancy rates are about 12% in both areas	Not statistically significant
Absorption Rate From 2005 to 2013	**No**	11% absorption increase in suburbs vs. 5% in CBDs	1% level
Change in Rents From 2009 to 2013	**Yes**	Rents decreased 3.9% less in CBDs	5% level
Change in Rents From 2005 to 2013	Yes	Rents increased 6.5% more in CBDs	Not statistically significant
Change in Vacancies From 2009 to 2013	**No**	Suburban vacancies declined 1% whereas CBD vacancies increased 10%	1% level
Change in Vacancies From 2005 to 2013	No	Vacancy rates increased by about 7% in both areas	Not statistically significant

*Bold type indicates statistically significant conclusion.

Location Preferences Based on Survey Responses

Overall, office tenants show no strong preference for either downtowns or suburban locations. Our conversations with brokers indicate that tenants seek office space that best fulfills their preferences for quality, cost, building features, access, and proximity to clients, competitors and/or skilled labor. Rarely do they enter a search comparing a CBD to a suburban location. Before they begin the search, they usually know whether they prefer to locate in the CBD or in the suburbs, and they further refine their location decision from there.

Office tenants would rather be located in suburban vibrant centers than in typical single-use suburban office locations (83 percent versus 17 percent of respondents). Companies seeking suburban locations appear to favor amenity-rich places that include other commercial, residential and civic facilities.

Office tenants may prefer suburban vibrant centers to downtowns, but this preference is location specific and needs to be qualified. First, strong CBDs usually are preferred to suburban vibrant centers, but the reverse is true when the CBD is weak: Suburban areas usually are preferred to weak CBDs. Second, the most vibrant CBDs tend to be in larger office markets, especially ones with strong rail transit service.

Figure 2

Are Office Properties in Suburban Vibrant Centers Outperforming Office Properties in Typical Single-Use Suburban Areas?

Measure	Conclusion	Result	Statistical Significance
Asking Rents in Q1 2013	**Yes***	Rents are $3.39 higher in suburban vibrant centers	1% level
Vacancy Rates in Q1 2013	**Yes**	Vacancy rates are 4.5% lower in suburban vibrant centers	1% level
Absorption Rate From 2005 to 2013	Yes	Relative absorption is 6.3% greater in suburban vibrant centers	Not statistically significant
Change in Rents From 2009 to 2013	No	4-5% rent reductions in both areas	Not statistically significant
Change in Rents From 2005 to 2013	Yes	9.3% increase in suburban vibrant centers 7.0% vs. increase in suburban office	Not statistically significant
Change in Vacancies From 2009 to 2013	Yes	17.7% lower in suburban vibrant centers	Not statistically significant
Change in Vacancies From 2005 to 2013	**Yes**	23.7% lower in suburban vibrant centers	5% level

*Bold type indicates statistically significant conclusion.

Location Preferences Based on Performance Analysis

CoStar measures rentable building area (RBA) and other metrics in 142 U.S. office markets for Class A, B and C space. This study accounts for the largest 53 CoStar office markets. These markets were defined as first tier (markets with 250 million square feet or more of RBA), second tier (those with 100 million to 250 million square feet of RBA), or third tier (less than 100 million square feet of RBA).

Performance differences were analyzed using first-quarter 2013 measures of rents, vacancies and absorption, as well as changes in rents and vacancies over two time periods (2009 to 2013 and 2005 to 2013) for CBDs, suburban vibrant centers and typical single-use suburban areas. Comparisons were made for the seven measures presented in Figures 1-3. The differences were subjected to statistical tests that are summarized in the same figures.

CBD-to-suburban comparisons were made for the 45 largest office markets with more than 60 million square feet of RBA. Downtowns are doing better than their entire suburban areas on the basis of rent and rent change indicators. Vacancy rates are about the same in both areas, but have declined more on a percentage basis in the suburbs since the Great Recession of 2009. Tenants are leasing more space, relatively as well as absolutely, in suburban areas

Figure 3

Are Suburban Vibrant Centers Performing Better than the CBDs in Their Market Areas?

Measure	Conclusion	Result	Statistical Significance
Asking Rents in Q1 2013	No	Rents average about $20/sq. ft./year in both areas	Not statistically significant
Vacancy Rates in Q1 2013	**Yes***	Vacancy rates are 4.5% lower in suburban vibrant centers	1% level
Absorption Rate From 2005 to 2013	**Yes**	Absorption rates are 9.7% higher in suburban vibrant centers	1% level
Change in Rents From 2009 to 2013	Yes	No reduction in suburban vibrant centers vs. 3.2% reduction in CBDs	Not statistically significant
Change in Rents From 2005 to 2013	No	7.7% increase in suburban vibrant centers vs. 8.7% increase in CBDs	Not statistically significant
Change in Vacancies From 2009 to 2013	**Yes**	12.6% decrease in suburban vibrant centers vs. 10.3% increase in CBDs	1% level
Change in Vacancies From 2005 to 2013	Yes	9.6% decrease in suburban vibrant centers vs. 10.8% increase in CBDs	Very close to statistically significant at the 5% level

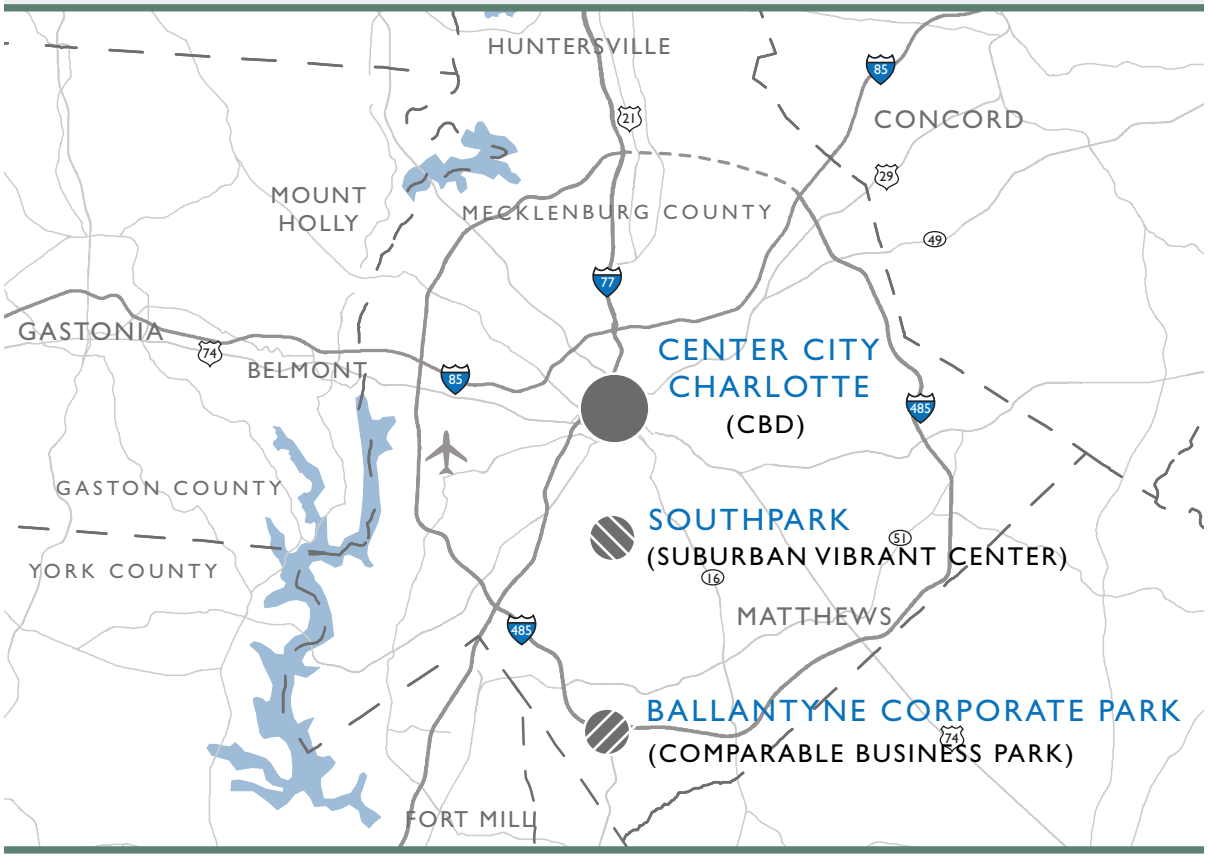
*Bold type indicates statistically significant conclusion.

(greater absorption). The rates of occupancy growth from 2005 to 2013 document these results. Clearly, downtowns are not outperforming suburban areas in the largest office markets across the U.S.

We identified the best examples of suburban vibrant centers from published sources and local-area experts. One group, which includes Belmar, consists of redevelopment and infill development projects that have revitalized underperforming suburban commercial areas. Each vibrant center in this group was paired with a comparable suburban office park. The second group, which includes Ballston, consists of older established town centers located in jurisdictions now considered parts of larger metro areas. Each vibrant center in this group was compared to its surrounding submarket. Either of these two types of vibrant center may be transit oriented. The list of suburban vibrant centers and their comparable submarkets or office parks can be found in Figure 16 on page 31. The map below illustrates one CBD, suburban vibrant center and its comparable office park that were analyzed in this research.

In conclusion, whether CBDs or suburban areas are preferred depends on specific company and metro area factors. Neither appears to be performing consistently better than the other location. On the other hand, suburban vibrant centers are preferred to and are performing better than typical single-use suburban office areas.

Charlotte, North Carolina, Urbanized Area



LandDesign

Figure 4 summarizes results for 45 CBDs compared to their suburban areas with the three basic metrics: average asking rents, vacancy rates and relative absorption rates from 2005 to 2013 (the eight-year growth rate of occupied space.) CoStar data for the first quarter of 2013 were used.

Figure 4

CBD-Suburban Comparisons for Average Asking Rents, Vacancy Rates and Relative Absorption Rates
(By Size of Market in Q1 2013)

CoStar Office Market	Average Asking Rents	Vacancy Rates	Relative Absorption Rates
NYC and Southwest CT	Higher*	Lower	Higher
Los Angeles	Higher	Same	Lower
Washington	Higher	Lower	Lower
Chicago	Higher	Lower	Same
Philadelphia	Higher	Lower	Higher
Boston	Higher	Lower	Lower
Dallas-Fort Worth	Lower	Higher	Lower
Atlanta	Lower	Lower	Lower
Houston	Higher	Same	Lower
Long Island, NY	Higher	Lower	Higher
Northern NJ	Higher	Lower	Higher
East Bay/Oakland, CA	Higher	Same	Lower
San Francisco	Higher	Lower	Lower
South Bay/San Jose, CA	Lower	Higher	Lower
South FL-Miami	Lower	Higher	Lower
Baltimore	Lower	Higher	Lower
Charlotte, NC	Higher	Lower	Lower
Cleveland	Higher	Higher	Lower
Denver	Higher	Higher	Lower
Detroit	Higher	Higher	Lower
Kansas City, KS and MO	Higher	Higher	Lower
Minneapolis/St. Paul	Higher	Higher	Lower
Orlando, FL	Higher	Higher	Lower
Phoenix	Higher	Lower	Lower
Pittsburgh	Higher	Higher	Lower
Sacramento, CA	Higher	Lower	Lower
St. Louis	Lower	Higher	Lower
San Diego	Same	Higher	Lower
Seattle	Higher	Higher	Lower
Tampa, FL	Higher	Lower	Lower
Austin, TX	Higher	Lower	Lower
Cincinnati/Dayton	Higher	Higher	Lower
Columbus, OH	Higher	Lower	Lower
Hartford, CT	Higher	Higher	Lower
Indianapolis	Higher	Lower	Lower
Jacksonville, FL	Higher	Higher	Lower
Las Vegas	Higher	Lower	Lower
Milwaukee/Madison	Higher	Same	Lower
Nashville, TN	Same	Higher	Lower

CoStar Office Market	Average Asking Rents	Vacancy Rates	Relative Absorption Rates
Portland, OR	Higher	Same	Lower
Raleigh/Durham, NC	Higher	Lower	Lower
Richmond, VA	Higher	Higher	Lower
Salt Lake City	Higher	Higher	Lower
San Antonio	Same	Higher	Lower
Western MI	Higher	Lower	Lower

*"Higher" means higher in CBD than in suburbs.

The results summarized above answer the five questions addressed in this study as follows:

1. **Do office tenants prefer CBDs to suburban areas?** Sometimes they do, sometimes they don't. Location preferences primarily depend on company priorities and on the area's economic base and spatial structure.

2. **Do office tenants prefer suburban vibrant centers to typical single-use suburban environments?** Yes, they do.

3. **Are office properties in CBDs performing better than those in suburban office areas?** Yes, for rent level and rent changes; no difference in vacancy rates; no, for absorption (less absorption in CBDs).

4. **Are office properties in suburban vibrant centers outperforming those in typical single-use suburban office areas?** Yes, for almost all metrics.

5. **Are suburban vibrant centers preferred to or performing better than CBDs in their market areas?** Preference depends on the specific area; vibrant center performance is the same as or better than CBD performance.

Introduction

In the late 19th and early 20th centuries, as new inventions like the elevator and skeleton-frame construction enabled vertical development of unprecedented mass and height, office buildings began to be concentrated in the central business districts (CBDs) of major U.S. cities. Many celebrated American office buildings date from this period. After World War II, another building cycle began, in which more construction took place in suburban areas, to accommodate the decentralization of the U.S. population and employment from central cities and CBDs. Office buildings supported business functions and production requirements that changed dramatically from the earlier period of city building to the period of suburban expansion after 1950.

Recent economic changes may be prompting locational shifts within U.S. office markets once again. Office space users seem to be increasingly dissatisfied with overwhelmingly auto-dependent, single-use, low-density suburban office parks, office campuses and similar office environments. Today, many appear to prefer amenity-rich urban places. In fact, most companies experiencing employee attrition due to retirement now consider relocating from suburban to urban office space to attract Gen Y workers (also known as millennials), many of whom prefer places where they can work, dine, shop, recreate, learn, etc. in close proximity.

Attractive office space typically is close to cafes, restaurants, retail shops, personal and business services, hospitality and civic uses. The best locations are compact, walkable places near housing and public transit. Office tenants expect their employees to be more satisfied in places that offer diverse, connected land uses. As a result, these companies anticipate higher productivity, less turnover and, possibly, more innovation. To become more competitive in the emerging knowledge-based economy, many companies are choosing to locate in these types of places.

In this study, we define "vibrant centers" as compact, connected, walkable, relatively dense, mixed-use, employment-oriented places often served by public transit. Metro areas containing these amenity-rich office locations may become more successful by attracting both college-educated talent and companies staffed with these workers. Most CBDs have the scale, density and variety of land uses to be the region's strongest vibrant center. Well-designed mixed-use infill projects in urban core areas already have attracted talent-seeking companies and young talented workers. Suburban areas, however, remain overwhelmingly single use, whether predominantly residential, retail, office, industrial or institutional. If the return to the city is significant, office space in vibrant CBDs should be more attractive to tenants than suburban office space, and should perform better.

Another trend is gaining momentum to meet the demand for live, work, play (LWP) environments in suburbia, where 77 percent of the nation's office inventory was located as of the first quarter of 2013. This trend is being realized through the redevelopment of existing retail centers and office parks, some of which have become suburban transit-oriented vibrant centers.

Although suburban redevelopment has received more attention, another emerging type of suburban vibrant center is far more common: the smaller cities and towns contained in many metro areas that have withstood the onslaught of highway-oriented development for over 50 years. The core areas of these cities and towns often have the employment density, design features and mix of land uses that can satisfy the demand for LWP places. Both vibrant town centers and suburban mixed-use developments that have achieved critical mass present many features of small CBDs. The demand for these suburban vibrant centers should grow, compared to the demand for typical single-use suburban locations. The preference for and performance of office space in suburban vibrant centers compared to office space in typical single-use suburban locations, as well as to downtown office space, therefore are of considerable interest.

Purpose of the Research

This study provides findings on both the locational preferences of office tenants and the performance of office properties. The combination of expert opinion, collected through surveys and interviews, and accurate analysis of property-level data offers reliable information about emerging location trends across major U.S. office markets. The objective is to assess whether office tenants leasing space prefer CBDs, suburban vibrant centers or typical single-use suburban areas. Urban vibrant centers near the CBD — places like Midtown Atlanta, Uptown Dallas and Rosslyn, Virginia — are not evaluated.

Methodology and Criteria

We ascertained location preferences by surveying and interviewing real estate brokers leasing office space and their researcher colleagues associated with major firms. These experts offered their opinions about whether locational shifts were underway in markets across the country. We analyzed performance differences using indicators in the CoStar office property database, specifically measures of rents, vacancies and absorption, as well as changes in rents and vacancies over time. We compared the following geographic areas: CBDs to entire suburban areas; suburban vibrant centers to comparable suburban office parks or submarkets; and CBDs to suburban vibrant centers located in selected second- and third-tier markets. In addition, researchers drew from their firms' proprietary databases to corroborate the performance results for specific office markets and offered contextual details that enriched the study. Therefore, the findings in this report are robust and based on evidence rather than anecdotes. The results are relevant for office development and redevelopment, sales and leasing, investment, property management, urban planning and development project review.

The locational preference survey and the performance analysis are complementary in two ways. First, brokers were asked to assess location preferences using a concise and *general definition* of suburban vibrant centers without reference to their size. (See question four in Appendix B.) Prospective suburban vibrant centers were included in the performance analysis only if they met *specific criteria* (listed in Appendix G) and had at least 500,000 square feet of office space within one-half mile from an address at the center's core. These places were qualified by consulting experts familiar with each metro market. Second, the performance analysis included only the largest office markets and other markets of interest to NAIOP. On the other hand, office brokers were surveyed without regard to location, and therefore provided information on markets not included in the performance analysis.

Location Preferences Based on Survey Results

Tenants seek office space that best fulfills their preferences for quality, cost, building features, access and location. This research hones in on tenants' location preferences for CBDs, suburban vibrant centers or typical single-use suburban locations. To gather this information, we interviewed active, experienced brokers and researchers working for major firms. Collectively, these professionals are aware of tenant preferences and how they currently are being realized in specific office markets. Appendix A describes the approach taken to gather and examine information on tenant preferences from office brokers and researchers. It includes the names of the primary contacts and researchers who contributed to the study. Appendix B presents the survey questions about location preferences.

Brokers and researchers with experience in both downtown and suburban areas were asked to compare office tenants' preferences for downtowns or for suburban environments. They selected each location about 50 percent of the time. Respondents indicated that location preferences primarily depend on specific company or market factors. In general, relatively large companies serving external markets tend to prefer suburban locations close to highways, airports, railways or waterways. These companies usually engage in corporate headquarter activities, research and development (R&D), service production or dissemination functions at these locations. Companies linked to local business clusters and government functions tend to favor downtown locations. These companies provide legal, accounting, architecture and engineering, financial, insurance, real estate and a broad range of other professional and consulting services.

However, preferences for central and peripheral locations continue to evolve. Many downtown professional and financial services firms now also have suburban locations. Energy, health and technology companies occupy suburban campuses but also have marketing and technology-oriented units in locations with urban amenities. Companies that produce computer hardware or software and those that offer telecommunications, data processing and other information services increasingly prefer downtown office space.

Overall, the suburbs provide better access for a suburbanized workforce and convenient free parking, but make workers dependent on their cars for all workday trips and all but the most minimal amenities. Downtowns, on the other hand, offer diverse, amenity-rich, walkable areas but also buildings with dated features, expensive parking, perceived security issues, etc. As a result, most respondents said "it depends" when asked whether prospective tenants prefer to locate in downtown or suburban locations.

Some respondents indicated that office tenants are more likely to prefer suburban vibrant centers to downtowns, while some indicated no clear preference: 48 percent chose suburban vibrant centers, 35 percent selected downtown and 17 percent indicated either location. The tilt favoring suburban vibrant centers does not represent a definitive preference. Whereas suburban vibrant centers are vibrant by definition, CBDs in a respondent's location may or may not be vibrant places. Therefore, suburban vibrant centers may be preferred to non-vibrant CBDs, but more vibrant CBDs, especially ones in larger metro areas, often are preferred to suburban vibrant centers. Furthermore, many Internet-oriented startups run by young entrepreneurs strongly favor urban locations and try to find relatively cheap real estate there, either in older industrial buildings or in Class B or C office space. Because these entrepreneurs rarely engage tenant representatives when looking for rental property, their location preferences are not accounted for in this research.

On the other hand, vibrant suburban centers may have two advantages over vibrant CBDs. Some tenants may be more comfortable in suburban vibrant centers that are sufficiently urban but far less intense and probably less expensive than the CBD. In auto-oriented metro areas, suburban vibrant centers can offer shorter average commute times for the company's workforce as well as free convenient parking, as noted above. Second, suburban vibrant centers could be preferred in some markets simply because, collectively, they offer tenants more choices compared to one CBD.

A large majority of respondents thought office tenants would rather be located in suburban vibrant centers than in suburban office parks (83.5 to 16.5 percent), and said they had detected this preference for the past few years or longer. Companies seeking suburban locations appear to favor amenity-rich places containing space that is close to commercial, residential and civic facilities. The data analysis presented in the next section tests whether this preference for suburban vibrant centers is strong enough to impact their performance and finds that it is.

Research staff provided insights to amplify these results. First, when downtown areas are not vibrant, the suburbs remain the preferred location. Reasons may include the fact that older, larger high-rise buildings are less attractive to current tenants, small downtown inventories relative to the entire office market, concentrated poverty near the CBD, and the absence of public investment spurring downtown redevelopment.

Second, some metro markets are extremely auto-oriented and low density. These office markets are less likely to have vibrant centers, either downtown or in the suburbs. Third, large metro areas with strong rail transit are most likely to have vibrant CBDs and ample suburban vibrant centers in the form of town centers connected by rail. In these markets, the CBD typically is the region's dominant vibrant center.

Finally, any company wanting to attract and retain young educated workers who prefer live, work, play locations needs to locate in a compact, mixed-use, walkable place, either downtown or in the suburbs. Alternatively, some large companies are running charter bus service between their suburban office campuses and urban locations where their employees prefer to live. And some companies with large suburban campuses are adding on-campus amenities such as restaurants, dry cleaning, dental offices, etc., that reduce the need for employees to drive off campus during the workday.

Performance Analysis Using Costar Data

We begin our analysis of office market performance with a descriptive overview of the national office market and an examination of CBDs and associated suburbs in 10 first-tier markets. The statistical analysis follows, in two parts. First, we compare CBDs to their suburbs in the 45 largest office markets in the continental U.S. Second, we compare 42 suburban vibrant centers to nearby typical single-use suburban office environments, either office parks or submarkets.

The first analysis, of the 45 largest markets, is the best assessment of the relative performance of CBDs compared to suburban areas. The second analysis is the best assessment of how well office space in suburban vibrant centers is competing with traditional single-use suburban office space. The office markets included in the performance analyses are listed in Appendix C. Research methods used to analyze office performance are described in Appendix D. Appendix E lists the CBDs defined in terms of CoStar submarkets and submarket clusters. Appendix F presents the comparisons of vibrant centers to suburban areas and to CBDs for selected second-tier and third-tier office markets. Comparisons between vibrant centers and smaller CBDs are more appropriate than comparisons between vibrant centers and larger CBDs.

Overview of U.S. Office Markets

CoStar tracks rentable building area (RBA) in 142 office markets for Class A, B and C buildings. We used this data set to represent the total U.S. office inventory. These markets were assigned to one of three tiers. The first tier includes 10 areas with RBA of at least 250 million square feet. The two largest markets, New York and Los Angeles, are defined by combining several CoStar market areas. The New York area consists of four CoStar markets: Long Island, New York City, Northern New Jersey, and Westchester/Southwestern Connecticut. The Los Angeles area includes three CoStar markets: the Inland Empire, Los Angeles and Orange County. Eight other markets complete the first tier, as shown in Figure 5.

The first column of Figure 5 shows the RBA in each large market and the total national RBA of 10.3 billion square feet in the first quarter of 2013. The New York area contains the largest concentration of office space, with 1.23 billion square feet or 11.9 percent of the total national inventory. The LA area is about half as large, with 647.3 million square feet. The other eight first-tier areas are listed in size order, from Washington to Houston. First-tier markets account for 47.2 percent of total inventory in the first quarter of 2013. No other office market in the country currently has over 200 million square feet, except South Florida, with 224.9 million square feet. The South Florida area contains three relatively distinct office markets on Florida's east coast: Palm Beach County, Broward County and Dade County (Miami).

Figure 5

First-tier Office Markets: Size, Rent and Vacancy, Q1 2013

Market	RBA (in millions of sq. ft.)	Asking Rent (per sq. ft. per year)	Vacancy Rate
New York Area	1,230.6		
Long Island	164.3	$26.27	7.9%
New York City	546.0	49.78	7.2
Northern NJ	354.4	22.94	15.0
Westchester/SW CT	165.9	27.38	13.6
Los Angeles Area	647.3		
Inland Empire	70.4	18.00	13.3
Los Angeles	424.5	27.72	12.6
Orange County	152.4	22.23	12.5
Washington	461.8	34.45	13.8
Chicago	460.2	22.66	14.0
Philadelphia	395.9	20.87	11.7
Bay Area (San Francisco)	382.3	31.44	10.7
Boston	376.5	20.20	10.1
Dallas/Fort Worth	340.6	19.72	15.4
Atlanta	299.0	18.43	15.6
Houston	269.8	24.14	11.8
Subtotal for Eight Areas	2,986.1		
Total First-tier Inventory	**4,864.0**		
Total National Inventory	**10,305.9**	**$21.36**	**11.8%**
CBD vs. Suburbs			
All U.S. CBDs	**2,400.7**	**$26.94**	**10.8%**
All U.S. Suburban Markets	**7,905.2**	**$20.10**	**12.0%**

Source: CoStar Q1 2013 National Office Report

The next two columns report first-quarter 2013 average rents and vacancy rates for the existing office inventory in these 10 markets, all U.S. CBDs, and all U.S. suburban areas. CBDs account for 23.3 percent of the total office inventory. For the entire U.S. inventory, rents were higher and vacancies were lower in CBDs in the first quarter of 2013. The spread for rents increased and the spread for vacancy rates decreased over the next three quarters of 2013. With all CoStar markets combined into one national market, CBDs performed better than suburban areas in 2013.

Second-tier markets have at least 100 million square feet of office space. The 10 largest ones we examined are Detroit (with 195.4 square feet), Denver (185.7), Minneapolis (183.5), Seattle (182.6), Phoenix (159.5), Cleveland (145.5), Tampa, Florida (144.3), Baltimore (134.9), St. Louis (132) and Pittsburgh (122.2). The remaining six are San Diego (112.7), Kansas City, Kansas and Missouri (111.3), Sacramento, California (105.7), Miami (102), Orlando, Florida (101.1), and Charlotte, North Carolina (100). San Francisco (161.8), East Bay/Oakland (113.8), and South Bay/San Jose (106.7) are second-tier markets separately, but are combined to form the first-tier Bay Area market (382.3). Miami is a second-tier market on its own but part of the South Florida market when Broward County and Palm Beach County are added.

The third tier consists of markets with less than 100 million square feet of RBA in the first quarter of 2013. The analysis accounts for 53 CoStar markets in all, as shown in Appendix C.

CBD-Suburban Area Comparisons for First-tier Office Markets

Comparisons for New York and Los Angeles are shown in Figure 6. The results for the New York markets are consistent with the proposition that CBD office space is performing better than suburban office space. Compared to the suburban portion of the Northern New Jersey market and the entire Westchester/Southwestern Connecticut market, the New York City market (Manhattan) has higher rents, lower vacancies and greater absorption. The urban portion of Long Island (Brooklyn, Queens and Staten Island) outperforms the suburban portion (Nassau and Suffolk counties) for these three measures.

The same analysis conducted for Los Angeles yields mixed results. The measures for all Los Angeles suburbs combine the three measures for the suburban portion of the LA market, the Inland Empire and Orange County. Rents in downtown LA are higher than suburban rents. However, vacancy rates are slightly higher in downtown LA, and the suburban area outperforms downtown LA in terms of relative absorption of space.

The superior performance of New York City compared to downtown Los Angeles may be partly related to the difference in the sizes of these two downtowns compared to their suburban counterparts. New York City, which is about eight times larger than downtown LA, is more dominant within its area, representing 44 percent of the entire New York area office market. Downtown LA accounts for 16 percent of the office space in Los Angeles County and just 10 percent in its more extensive market area.

Figure 6

CBD-Suburban Area Comparisons in New York and Los Angeles Office Markets

Market	RBA (in millions of sq. ft.)	Asking Rent (per sq. ft. per year)	Vacancy Rate	Absorption Rate*
New York Area				
New York City	546.7	$49.46	7.1%	1.0353
Northern NJ	297.5	22.84	15.8	0.9992
Westchester/SW CT	166.8	27.09	13.5	1.0203
Long Island-Urban	73.4	27.22	5.4	1.0989
Long Island-Suburban	87.8	25.22	10.1	1.0383
Los Angeles Area				
Downtown LA	68.5	$30.19	12.8%	1.0060
Suburban LA	351.5	27.28	12.4	1.0131
Inland Empire	71.6	17.70	13.4	1.2050
Orange County	152.5	22.19	12.2	1.0423
All Los Angeles Suburbs	575.6	24.74	12.5	1.0447

Source: CoStar Q1 2013 National Office Report

*The absorption rate is the amount of occupied space in Q1 2013 divided by the amount of occupied space in Q1 2005.

Figure 7 presents rents, vacancy rates and relative absorption for the existing office market inventory in the remaining eight first-tier markets. The analysis compares these CBDs to their suburbs in the first quarter of 2013. The results show that rents are consistently higher in first-tier CBDs than in their respective suburbs in all markets except Atlanta.

Vacancy rates are lower in CBDs, with three exceptions. In the Bay Area and Houston, vacancy rates are about the same in the CBDs and suburban areas. Vacancy rates are much higher in the Dallas and Fort Worth CBDs than in their suburbs.

Generally, the absorption rate is higher in first-tier suburbs, which are capturing relatively more demand than CBDs.

Figure 7

CBD-Suburban Area Comparisons in Other First-tier Office Markets
(By Size of Market in Q1 2013)

Market	RBA (in millions of sq. ft.)	Asking Rent (per sq. ft. per year)	Vacancy Rate	Absorption Rate*
Washington Downtown	96.2	$50.74	10.0%	1.0596
Washington Suburbs	393.0	29.62	14.7	1.0842
Chicago CBD	133.4	28.92	12.8	1.0588
Chicago Suburbs	334.2	18.96	14.5	1.0674
Philadelphia Downtown	63.9	24.62	9.8	1.0256
Philadelphia Suburbs	339.5	19.93	12.1	1.0103
Bay Area CBDs	87.0	32.19	10.9	1.0486
Bay Area Suburbs	273.6	30.39	10.3	1.1079
Boston Downtown	99.5	30.72	7.8	1.0642
Boston Suburbs	275.7	19.04	10.6	1.0808
Dallas-Fort Worth CBDs	46.8	20.56	22.6	0.9683
Dallas-Fort Worth Suburbs	340.7	19.53	15.2	1.1329
Atlanta CBD	38.2	17.96	14.3	0.9927
Atlanta Suburbs	268.3	18.25	15.8	1.3137
Houston CBD	48.6	32.84	11.7	1.1539
Houston Suburbs	232.7	21.76	11.9	1.1780

Source: CoStar Submarket database

Note: "Downtowns" are CoStar clusters that include two or more submarkets; CBDs are single CoStar submarkets.

*The absorption rate is the amount of occupied space in Q1 2013 divided by the amount of occupied space in Q1 2005.

The bottom line for first-tier markets is that CBDs are outperforming the suburbs with higher rents and generally lower vacancy rates. However, more regional demand for office space was absorbed in the suburbs during the 2005 to 2013 period, both absolutely and relative to their respective space inventories. Mixed results for first-tier office markets underscore the need to use statistical tests to qualify the results for individual office markets throughout the country.

CBD-Suburban Area Comparisons for the 45 Largest Office Markets

One important objective of this research was to compare directly the two major locational categories of office space, CBDs and suburban areas. Have CBDs made a comeback? Are they now outperforming suburban areas, or are suburban areas still performing better? Figures 8 through 14 present the results for the CBD-suburban comparisons, using seven performance measures for the 45 largest office markets in the continental U.S. with RBA over 60 million square feet. (The first-tier markets are listed first and ordered by size. Baltimore begins the alphabetical listing of second-tier markets (in green box); Austin, Texas, begins the alphabetical listing of third-tier markets.)

Figures 8, 9 and 10 look at asking rents for CBDs and suburbs in three ways. First, we present a snapshot of the first quarter of 2013. Figure 8 indicates that in most markets, rents in the first quarter of 2013 were higher in CBDs than in suburban areas, which is consistent with the results for first-tier markets. The $4.48 difference is statistically significant at the 1 percent level. (There is one chance in 100 that no rent differences exist.)

Second, Figure 9 shows the change in rents from the first quarter of 2009 to the first quarter of 2013. This addresses the question of how well CBDs and the suburbs have rebounded since the Great Recession. Rents have declined in both areas but more so in the suburbs. CBD rents declined almost 4 percent less than suburban rents. The difference is statistically significant at the 5 percent level. (There are five chances in 100 that no difference in rent changes exists.)

Third, Figure 10 looks at the change in rents between 2005 and 2013 and indicates that rents have increased since the first quarter of 2005 by almost 12 percent in CBDs and 5.4 percent in suburban areas. This stronger CBD performance is not statistically significant, however.

Figure 8

Average Asking Rents in Largest Office Markets
(By Size of Market in Q1 2013)

CoStar Office Market	CBD	Suburb	CBD-Suburban Rent Difference
NYC and Southwest CT	$49.46	$27.10	$22.36
Los Angeles	30.18	25.40	4.78
Washington	50.74	27.19	23.55
Chicago	28.99	18.15	10.84
Philadelphia	24.62	19.76	4.86
Boston	30.72	17.69	13.03
Dallas/Fort Worth	20.56	18.81	1.75
Atlanta	18.04	16.38	1.66
Houston	32.84	21.13	11.71
Long Island, NY	27.07	25.28	1.79
Northern NJ	23.71	22.38	1.33
East Bay/Oakland, CA	24.26	21.50	2.76
San Francisco	43.12	39.84	3.28
South Bay/San Jose, CA	24.09	28.02	-3.93
South FL-Miami	31.84	25.14	6.70
Baltimore	20.47	21.44	-0.97
Charlotte, NC	23.78	17.95	5.83
Cleveland	17.84	15.23	2.61
Denver	26.80	19.71	7.09
Detroit	18.60	16.69	1.91
Kansas City, KS and MO	15.69	16.75	-1.06
Minneapolis/St. Paul	16.32	15.70	0.62
Orlando, FL	21.24	17.27	3.97
Phoenix	22.93	19.14	3.79
Pittsburgh	20.25	17.51	2.74
Sacramento, CA	24.11	18.67	5.44
St. Louis	15.62	17.81	-2.19
San Diego	25.23	25.43	-0.20
Seattle	30.91	24.35	6.56
Tampa, FL	19.84	17.49	2.35
Austin, TX	36.45	24.28	12.17
Cincinnati/Dayton	15.92	14.60	1.32
Columbus, OH	16.84	15.16	1.68
Hartford, CT	19.48	17.28	2.20
Indianapolis	18.07	15.54	2.53
Jacksonville, FL	18.52	16.46	2.06
Las Vegas	23.46	18.47	4.99
Milwaukee/Madison	17.30	14.96	2.34
Nashville, TN	18.71	18.37	0.34
Portland, OR	22.78	17.67	5.11
Raleigh/Durham, NC	19.39	17.92	1.47
Richmond, VA	19.43	15.85	3.58
Salt Lake City	20.07	16.35	3.72
San Antonio	19.05	19.03	0.02
Western MI	25.23	12.04	13.19
Average	**$24.23**	**$19.75**	
Average Difference			**$4.48**

Figure 9

Change in Rents in Largest Office Markets, 2009-2013
(By Size of Market in Q1 2013)

CoStar Office Market	CBD	Suburb	CBD-Suburban Rent Difference
NYC and Southwest Connecticut	-8.64%	-3.35%	-5.29%
Los Angeles	-1.15	-9.70	8.55
Washington	3.45	-1.91	5.36
Chicago	-2.82	-8.61	5.79
Philadelphia	-0.24	-5.73	5.49
Boston	-7.27	-13.67	6.40
Dallas/Fort Worth	3.16	-4.18	7.34
Atlanta	-11.48	-7.93	-3.55
Houston	3.08	-3.56	6.64
Long Island, NY	-4.04	-5.11	1.07
Northern NJ	-5.54	-8.95	3.41
East Bay/Oakland, CA	-7.26	-10.38	3.12
San Francisco	31.50	18.25	13.25
South Bay/San Jose, CA	-9.47	-1.86	-7.61
South FL-Miami	-7.84	-10.21	2.37
Baltimore	-7.67	-3.29	-4.38
Charlotte, NC	-16.62	0.96	-17.58
Cleveland	5.00	-5.64	10.64
Denver	0.34	-1.45	1.79
Detroit	1.20	-13.70	14.90
Kansas City, KS and MO	-2.67	-4.67	2.00
Minneapolis/St. Paul	7.44	-6.10	13.54
Orlando, FL	-12.41	-16.89	4.48
Phoenix	-23.59	-20.88	-2.71
Pittsburgh	0.95	-1.19	2.14
Sacramento, CA	-12.48	-17.32	4.84
St. Louis	-5.85	-4.86	-0.99
San Diego	-15.70	-15.29	-0.41
Seattle	1.18	-6.60	7.78
Tampa, FL	-5.75	-19.44	13.69
Austin, TX	16.94	-0.12	17.06
Cincinnati/Dayton	9.34	-3.88	13.22
Columbus, OH	6.38	-2.00	8.38
Hartford, CT	0.36	-3.79	4.15
Indianapolis	2.09	-7.61	9.70
Jacksonville, FL	-3.19	-9.11	5.92
Las Vegas	-19.74	-21.87	2.13
Milwaukee/Madison	4.59	-0.66	5.25
Nashville, TN	-0.32	-3.37	3.05
Portland, OR	4.40	-5.46	9.86
Raleigh/Durham, NC	-5.69	-6.67	0.98
Richmond, VA	0.00	-3.94	3.94
Salt Lake City	-3.65	0.30	-3.95
San Antonio	3.59	2.64	0.95
Western MI	-15.70	-6.52	-9.18
Average	**-2.48%**	**-6.34%**	
Average Difference			**3.86%**

Figure 10

Change in Rents in Largest Office Markets, 2005-2013
(By Size of Market in Q1 2013)

CoStar Office Market	CBD	Suburb	CBD-Suburban Rent Difference
NYC and Southwest Connecticut	19.04%	7.24%	11.80%
Los Angeles	27.56	9.11	18.45
Washington	22.74	6.89	15.85
Chicago	2.87	-8.56	11.43
Philadelphia	11.15	-6.84	17.99
Boston	-7.05	-1.34	-5.71
Dallas/Fort Worth	10.01	10.19	-0.18
Atlanta	-7.11	1.36	-8.47
Houston	58.49	29.55	28.94
Long Island, NY	17.44	4.03	13.41
Northern NJ	-5.69	-7.52	1.83
East Bay/Oakland, CA	12.06	-2.63	14.69
San Francisco	62.47	64.56	-2.09
South Bay/San Jose, CA	-1.03	31.30	-32.33
South FL-Miami	28.03	9.78	18.25
Baltimore	-6.87	8.61	-15.48
Charlotte, NC	22.33	11.49	10.84
Cleveland	-3.93	-7.81	3.88
Denver	48.89	20.48	28.41
Detroit	-1.95	-19.53	17.58
Kansas City, KS and MO	3.22	-1.59	4.81
Minneapolis/St. Paul	21.25	7.31	13.94
Orlando, FL	-6.56	-2.26	-4.30
Phoenix	15.98	-3.53	19.51
Pittsburgh	3.32	6.70	-3.38
Sacramento, CA	-9.19	-4.40	-4.79
St. Louis	7.80	-3.73	11.53
San Diego	-9.08	-4.47	-4.61
Seattle	28.74	16.40	12.34
Tampa, FL	6.55	-1.52	8.07
Austin, TX	74.24	37.88	36.36
Cincinnati/Dayton	-4.56	1.39	-5.95
Columbus, OH	-3.55	-6.30	2.75
Hartford, CT	-1.32	-0.86	-0.46
Indianapolis	11.82	-4.72	16.54
Jacksonville, FL	-0.91	2.05	-2.96
Las Vegas	-23.91	-14.88	-9.03
Milwaukee/Madison	13.52	6.86	6.66
Nashville, TN	11.30	13.54	-2.24
Portland, OR	29.73	7.03	22.70
Raleigh/Durham, NC	7.78	4.86	2.92
Richmond, VA	20.98	9.24	11.74
Salt Lake City	26.94	12.37	14.57
San Antonio	9.67	19.99	-10.32
Western MI	-9.08	-14.0	4.92
Average	**11.87%**	**5.42%**	
Average Difference			**6.45%**

Figures 11, 12 and 13 examine vacancy rates for CBD and suburban markets in three ways. First, Figure 11 looks at vacancy rates in the first quarter of 2013. The data indicate that average vacancy rates for the 45 largest office markets in the first quarter of 2013 are almost equal in CBDs and suburban areas, at slightly over 12 percent. Thus, no significant difference exists.

Second, Figure 12 shows that, since the Great Recession, suburban areas are doing much better than CBDs. Vacancy rates have declined by 1.2 percent in the suburbs but have increased by almost 10 percent in downtowns. The test statistic is significant at the 1 percent level.

Third, Figure 13 shows that vacancy rates have increased in the past eight years by about 7 percent in both CBDs and the suburbs. Vacancies did decline in 18 CBDs and 17 suburban areas over this period, but they increased in more markets. The average difference is not statistically significant.

Figure 11

Vacancy Rates in Largest Office Markets
(By Size of Market in Q1 2013)

CoStar Office Market	CBD	Suburb	CBD-Suburban Difference
NYC and Southwest CT	7.1%	13.5%	-6.40%
Los Angeles	13.0	12.9	0.10
Washington	10.0	15.6	-5.60
Chicago	12.8	16.0	-3.20
Philadelphia	10.1	12.1	-2.00
Boston	8.1	11.2	-3.10
Dallas/Fort Worth	22.0	14.9	7.10
Atlanta	13.3	15.8	-2.50
Houston	11.6	12.2	-0.60
Long Island, NY	5.4	10.2	-4.80
Northern NJ	13.3	15.8	-2.50
East Bay/Oakland, CA	10.9	10.7	0.20
San Francisco	8.7	11.7	-3.00
South Bay/San Jose, CA	15.5	9.8	5.70
South FL-Miami	16.6	14.0	2.60
Baltimore	13.0	11.6	1.40
Charlotte, NC	7.9	13.1	-5.20
Cleveland	19.4	9.6	9.80
Denver	13.8	11.5	2.30
Detroit	19.6	17.2	2.40
Kansas City, KS and MO	16.3	11.3	5.00
Minneapolis/St. Paul	10.5	8.6	1.90
Orlando, FL	14.0	12.3	1.70
Phoenix	14.1	19.8	-5.70
Pittsburgh	10.4	7.2	3.20
Sacramento, CA	11.6	16.5	-4.90
St. Louis	17.4	11.1	6.30
San Diego	15.7	11.3	4.40
Seattle	14.2	9.7	4.50
Tampa, FL	12.4	13.3	-0.90
Austin, TX	8.8	10.5	-1.70
Cincinnati/Dayton	17.5	13.2	4.30
Columbus, OH	9.8	10.0	-0.20
Hartford, CT	14.1	10.2	3.90
Indianapolis	8.6	9.8	-1.20
Jacksonville, FL	14.4	13.0	1.40
Las Vegas	6.7	19.5	-12.80
Milwaukee/Madison	10.3	10.2	0.10
Nashville, TN	12.7	7.4	5.30
Portland, OR	9.4	9.6	-0.20
Raleigh/Durham, NC	4.8	12.3	-7.50
Richmond, VA	14.4	9.4	5.00
Salt Lake City	9.2	6.4	2.80
San Antonio	16.3	10.3	6.00
Western MI	9.5	12.6	-3.10
Average	**12.34%**	**12.11%**	
Average Difference			**0.23%**

Figure 12

Change in Vacancy Rates in Largest Office Markets, 2009-2013
(By Size of Market in Q1 2013)

CoStar Office Market	CBD	Suburb	CBD-Suburban Difference
NYC and Southwest CT	5.97%	29.81%	-23.84%
Los Angeles	21.50	21.70	-0.20
Washington	6.38	12.23	-5.85
Chicago	5.79	-2.44	8.23
Philadelphia	10.99	13.08	-2.09
Boston	3.85	-13.85	17.70
Dallas/Fort Worth	36.89	8.33	28.56
Atlanta	27.88	8.97	18.91
Houston	8.41	-10.29	18.70
Long Island, NY	-28.00	9.68	-37.68
Northern NJ	12.71	17.04	-4.33
East Bay/Oakland, CA	10.10	-6.96	17.06
San Francisco	-17.92	1.74	-19.66
South Bay/San Jose, CA	3.33	-30.99	34.32
South FL-Miami	36.07	6.06	30.01
Baltimore	12.07	-3.33	15.40
Charlotte, NC	29.51	-4.38	33.89
Cleveland	12.79	9.09	3.70
Denver	0.00	-19.01	19.01
Detroit	-6.67	6.17	-12.84
Kansas City, KS and MO	14.79	5.61	9.18
Minneapolis/St. Paul	-2.78	-3.37	0.59
Orlando, FL	35.92	-3.91	39.83
Phoenix	30.56	1.54	29.02
Pittsburgh	-15.45	-27.27	11.82
Sacramento, CA	23.40	3.13	20.27
St. Louis	-0.57	12.12	-12.69
San Diego	8.28	-22.07	30.35
Seattle	19.33	3.19	16.14
Tampa, FL	-5.34	10.83	-16.17
Austin, TX	-12.00	-25.53	13.53
Cincinnati/Dayton	26.91	8.20	18.71
Columbus, OH	8.89	-10.71	19.60
Hartford, CT	15.57	8.51	7.06
Indianapolis	19.44	-18.33	37.77
Jacksonville, FL	-4.00	-12.16	8.16
Las Vegas	26.42	7.14	19.28
Milwaukee/Madison	-3.74	7.37	-11.11
Nashville, TN	-3.05	-12.94	9.89
Portland, OR	8.05	-4.95	13.00
Raleigh/Durham, NC	-28.36	9.82	-38.18
Richmond, VA	10.77	2.17	8.60
Salt Lake City	13.58	-34.02	47.60
San Antonio	61.39	-1.90	63.29
Western MI	-1.04	-6.67	5.63
Average	**9.75%**	**-1.15%**	
Average Difference			**10.89%**

Figure 13

Change in Vacancy Rates in Largest Office Markets, 2005-2013
(By Size of Market in Q1 2013)

CoStar Office Market	CBD	Suburb	CBD-Suburban Difference
NYC and Southwest CT	-14.46%	12.50%	-26.96%
Los Angeles	1.56	44.94	-43.38
Washington	21.95	47.17	-25.22
Chicago	-18.47	8.84	-27.31
Philadelphia	-0.98	18.63	-19.61
Boston	-12.90	-13.85	0.95
Dallas/Fort Worth	28.09	-13.37	41.46
Atlanta	25.47	20.61	4.86
Houston	-41.12	-12.23	-28.89
Long Island, NY	-30.77	8.51	-39.28
Northern NJ	10.83	24.41	-13.58
East Bay/Oakland, CA	6.86	5.94	0.92
San Francisco	-42.38	-33.90	-8.48
South Bay/San Jose, CA	9.15	-40.61	49.76
South FL-Miami	34.96	75.00	-40.04
Baltimore	14.04	10.48	3.56
Charlotte, NC	-7.06	0.76	-7.82
Cleveland	2.11	4.35	-2.24
Denver	-10.39	-24.34	13.95
Detroit	19.51	25.55	-6.04
Kansas City, KS and MO	26.36	-3.42	29.78
Minneapolis/St. Paul	-6.25	-2.27	-3.98
Orlando, FL	35.92	23.00	12.92
Phoenix	27.03	30.26	-3.23
Pittsburgh	-32.03	-47.83	15.80
Sacramento, CA	0.87	21.32	-20.45
St. Louis	27.94	18.09	9.85
San Diego	72.53	18.95	53.58
Seattle	10.08	-11.82	21.90
Tampa, FL	6.90	35.71	-28.81
Austin, TX	-45.34	-21.05	-24.29
Cincinnati/Dayton	62.04	28.16	33.88
Columbus, OH	2.08	-13.04	15.12
Hartford, CT	41.00	-2.86	43.86
Indianapolis	-13.13	-10.91	-2.22
Jacksonville, FL	-2.04	0.78	-2.82
Las Vegas	91.43	105.26	-13.83
Milwaukee/Madison	14.44	20.00	-5.56
Nashville, TN	16.51	-25.25	41.76
Portland, OR	-14.55	0.00	-14.55
Raleigh/Durham, NC	-54.72	-10.22	-44.50
Richmond, VA	39.81	13.25	26.56
Salt Lake City	-12.38	-21.95	9.57
San Antonio	61.39	10.75	50.64
Western MI	-11.21	3.28	-14.49
Average	**7.57%**	**7.28%**	
Average Difference			**0.29%**

Absorption is an important indicator of relative performance, because it shows where tenants are leasing and occupying office space. With only 23 percent of the total office inventory, downtowns are not going to absorb more demand than the suburbs. However, Figure 14 presents the rate of absorption from 2005 to 2013, a relative measure that accounts for differences in inventory size. As noted, this rate is calculated as occupied space in 2013 divided by occupied space in 2005, which gives an eight-year growth rate. The data show that occupancy in suburban areas has increased by 11 percent, compared to less than 5 percent in CBDs. The 6.5 percent difference is significant beyond the 1 percent level.

Figure 14

Absorption Rates in Largest Office Markets, Occupancy 1Q 2013/1Q 2005
(By Size of Market in Q1 2013)

CoStar Office Market	CBD	Suburb	CBD-Suburban Difference
NYC and Southwest CT	1.0356	1.0197	0.0159
Los Angeles	1.0057	1.0100	-0.0043
Washington	1.0595	1.0782	-0.0187
Chicago	1.0597	1.0524	0.0073
Philadelphia	1.0230	1.0111	0.0119
Boston	1.0597	1.0736	-0.0139
Dallas/Fort Worth	0.9679	1.1678	-0.1999
Atlanta	1.0140	1.0706	-0.0566
Houston	1.1514	1.1877	-0.0363
Long Island, NY	1.0949	1.0380	0.0569
Northern NJ	1.0172	0.9964	0.0208
East Bay/Oakland, CA	1.0121	1.0301	-0.0180
San Francisco	1.0983	1.1171	-0.0188
South Bay/San Jose, CA	1.0120	1.1851	-0.1731
South FL-Miami	1.0292	1.0656	-0.0364
Baltimore	0.9844	1.1890	-0.2046
Charlotte, NC	1.1692	1.1909	-0.0217
Cleveland	0.9951	1.0502	-0.0551
Denver	1.0347	1.1490	-0.1143
Detroit	0.9718	1.0021	-0.0303
Kansas City, KS and MO	1.0032	1.0670	-0.0638
Minneapolis/St. Paul	1.0099	1.0875	-0.0776
Orlando, FL	1.0949	1.1717	-0.0768
Phoenix	1.1543	1.1810	-0.0267
Pittsburgh	1.0679	1.1399	-0.0720
Sacramento, CA	1.0863	1.0963	-0.0100
St. Louis	0.9655	1.0703	-0.1048
San Diego	1.0187	1.1340	-0.1153
Seattle	1.0504	1.1687	-0.1183
Tampa, FL	1.0223	1.1074	-0.0851
Austin, TX	1.1050	1.2272	-0.1222
Cincinnati/Dayton	0.9695	1.0386	-0.0691
Columbus, OH	1.0274	1.1117	-0.0843
Hartford, CT	0.9566	1.0500	-0.0934
Indianapolis	1.0303	1.1079	-0.0776
Jacksonville, FL	1.0431	1.1438	-0.1007
Las Vegas	1.1165	1.1468	-0.0303
Milwaukee/Madison	1.0179	1.0318	-0.0139
Nashville, TN	1.0871	1.2267	-0.1396
Portland, OR	1.0659	1.0968	-0.0309
Raleigh/Durham, NC	1.1927	1.2088	-0.0161
Richmond, VA	1.0288	1.0824	-0.0536
Salt Lake City	1.0993	1.2310	-0.1317
San Antonio	0.9392	1.2387	-0.2995
Western MI	1.0589	1.0838	-0.0249
Average	**1.0446**	**1.109653**	
Average Difference			**-0.06505**

What can we conclude from this analysis of rents, vacancies and absorption rates, in which each of the 45 largest office markets is given equal weight? Downtowns perform better on the rent indicators. Vacancy rates and changes in vacancy indicators are at least as good in suburban areas as in CBDs. Tenants are leasing more space, relatively as well as absolutely, in suburban areas. Mark Twain once quipped that rumors of his death were greatly exaggerated. The same can be said about the suburban office market compared to downtowns. Furthermore, CoStar News reports that suburban office markets, with about three quarters of the inventory, have absorbed about 90 percent of demand in 2012 and 2013.[1]

[1] "For U.S. Office Market, It Was a Very Good Year," Randyl Drummer, CoStar News, Jan. 29, 2014. http://www.costar.com/News/Article/For-US-Office-Market-It-Was-a-Very-Good-Year/156702

Suburban Vibrant Center-Suburban Office Park or Submarket Comparisons

With data indicating that the suburbs are absorbing relatively more space than CBDs, it is important to understand which areas in the suburbs are attracting space users. The analysis in this section computes the performance of the best examples of suburban vibrant centers and comparable suburban office parks or their surrounding submarkets. These vibrant centers fall into two categories. The first consists of redevelopment or infill development that revitalized underperforming suburban commercial assets. Examples include the Mueller Redevelopment in Austin, Texas (the redevelopment of the Robert Mueller Municipal Airport) and Santana Row in San Jose, California (the redevelopment of the Town & Country Village Shopping Center). The second group consists of older established town centers located in jurisdictions that have become part of larger metro areas, such as Oak Park and White Plains in the Chicago and New York metro areas, respectively. Either type of vibrant center can be transit oriented.

Potential vibrant centers initially were identified from published work and by area experts who were consulted in the course of the study. The best examples of suburban vibrant centers are presented in Figure 15. Appendix G presents a definition of vibrant centers, 11 key characteristics of vibrant centers, an explanation of how the suburban vibrant centers in this study were identified and qualified, and the suburban areas to which they were compared. Potential vibrant centers were included in the performance analysis only if they met specific criteria identified in Appendix G and had at least 500,000 square feet of office space within a half mile of an address at the center's core. Area experts who contributed to this study are listed in Appendix H.

Twenty-one redeveloped/infill suburban vibrant centers include all existing office space within a half-mile circle around their cores. Each of these centers was compared to a suburban office park or office corridor with at least 1 million square feet of RBA within a half-mile radius around its center. Another 21 established vibrant town centers were compared to the remainder of the office submarket surrounding their central area. Four of the suburban centers and seven of the town centers also are transit oriented, but these centers were not analyzed as a separate group.

The seven measures for the vibrant center-suburban comparison pairings were computed, and the differences between them were analyzed statistically. The detailed explanation of this analysis is provided in Appendix D.

Figure 15

Suburban Vibrant Centers

Name	CBD[1]	Size (RBA)[2]	Type[3]
Ballston, VA	Washington, D.C.-1	8,790,318	TC/TOD
Belmar, CO	Denver-2	581,093	SUB
Birmingham, MI	Detroit-2	2,224,524	TC
Blue Back Square, CT	Hartford-3	907,302	SUB
Boulder, CO	Denver-2	2,539,221	TC
Buckhead Station, GA	Atlanta-1	9,915,280	SUB/TOD
CityPlace, FL	South Florida-1	3,169,068	SUB
Clayton, MO	St. Louis-2	7,724,237	TC
Country Club Plaza, MO	Kansas City-2	3,577,923	SUB
Culver City, CA	Los Angeles-1	1,404,413	SUB
Decatur, GA	Atlanta-1	1,641,777	TC/TOD
Evanston, IL	Chicago-1	2,472,051	TC/TOD
Frederick, MD	Washington, D.C.-1	1,586,597	TC
Highland Park, IL	Chicago-1	792,974	TC/TOD
Hillsboro Village, TN	Nashville-3	1,430,717	SUB
Lowell, MA	Boston-1	2,032,642	TC/TOD
Mizner Park, FL	Miami/Dade-2	1,351,436	SUB
Morristown, NJ	New York-1	2,124,093	SUB/TOD
Mueller Redevelopment, TX	Austin-3	516,022	SUB
Oak Park, IL	Chicago-1	1,019,154	TC/TOD
Old Town Alexandria, VA	Washington, D.C.-1	3,939,920	TC
Old Town Pasadena, CA	Los Angeles-1	4,126,784	TC
Princeton, NJ	Philadelphia-1	2,472,051	TC
Red Bank, NJ	New York-1	1,295,065	SUB
Redmond, WA	Seattle-2	1,403,727	TC
Reston Town Center, VA	Washington, D.C.-1	5,394,169	TC
San Mateo, CA	San Francisco-1	1,478,245	SUB/TOD
Santana Row, CA	South Bay/San Jose-1	817,542	SUB
Shirlington, VA	Washington, D.C.-1	801,214	SUB
Silver Spring, MD	Washington, D.C.-1	6,777,305	TC/TOD
Somerville, MA	Boston-1	854,923	TC
South Coast Town Center, CA	Los Angeles-1	3,424,163	SUB
Southlake Town Square, TX	Dallas-Fort Worth-1	541,622	SUB
SouthPark, NC	Charlotte-2	2,099,324	SUB
Stamford, CT	New York-1	8,176,944	TC
The Woodlands Town Center, TX	Houston-1	3,091,928	SUB
Towson Town Center, MD	Baltimore-2	4,101,209	SUB
Walnut Creek, CA	East Bay/Oakland-1	2,953,326	SUB/TOD
Waltham, MA	Boston-1	734,666	TC
Westfield UTC, CA	San Diego-2	3,392,698	SUB
White Plains, NY	New York-1	7,241,728	TC
Winter Park, FL	Orlando-2	1,372,077	TC

[1]The numbers below refer to first-, second- and third-tier markets. For definitions, see p. 14.
[2]Size: rentable building area (RBA) in square feet, as of Q1 2013.
[3]Types are defined as follows: SUB, suburban redevelopment/infill development; TC, established town center core area; TOD, transit-oriented development.

A list of each suburban vibrant center and its comparable suburban area (office park, office corridor or surrounding submarket) is presented in Figure 16.

Figure 16

Suburban Vibrant Centers and Their Comparable Submarkets or Office Parks

Suburban Vibrant Center	Type*	Comparable Submarket or Office Park
Birmingham, MI	TC	Birmingham Area and Bloomfield submarkets
Boulder, CO	TC	Boulder submarket
Clayton, MO	TC	Creve Coeur/Highway 67, I-270/Maryland Heights and I-270/Olive Boulevard submarkets
Frederick, MD	TC	Frederick submarket
Old Town Alexandria, VA	TC	I-395 Corridor submarket
Old Town Pasadena, CA	TC	Pasadena/Arcadia/Monrovia submarket
Princeton, NJ	TC	Princeton North submarket
Redmond, WA	TC	Redmond submarket
Reston Town Center, VA	TC	Reston submarket
Somerville, MA	TC	Somerville/Everett submarket
Stamford, CT	TC	Stamford submarket
Waltham, MA	TC	Waltham/Watertown submarket
White Plains, NY	TC	East I-287 submarket
Winter Park, FL	TC	Winter Park submarket
Ballston, VA	TC/TOD	Tysons Corner submarket
Decatur, GA	TC/TOD	Northlake/Lavista and Stone Mountain submarkets
Evanston, IL	TC/TOD	Near North submarket
Highland Park, IL	TC/TOD	Central North submarket
Lowell, MA (core)	TC/TOD	Lowell/Chelmsford submarket
Oak Park, IL (core)	TC/TOD	Oak Park Area submarket
Silver Spring, MD	TC/TOD	Greenbelt, N. Silver Spring and Kensington/Wheaton submarkets
Buckhead Station, GA	SUB/TOD	Upper Buckhead submarket
Morristown, NJ (core)	SUB/TOD	Park Avenue at Morris County (office park)
San Mateo, CA (core)	SUB/TOD	Peninsula Office Park
Walnut Creek, CA (core)	SUB/TOD	Camino Ramon Office Park
Belmar, CO	SUB	West Point (office park)
Blue Back Square, CT	SUB	Salmon Brook Office Park
CityPlace, FL	SUB	Centrepark
Country Club Plaza, MO	SUB	Sprint World Headquarters (office park)
Culver City, CA (core)	SUB	Park Place (office park)
Hillsboro Village, TN	SUB	Burton Hills (office park)
Mizner Park, FL	SUB	Boca Corporate Center
Mueller Redevelopment, TX	SUB	Highway 290 East area
Red Bank, NJ (core)	SUB	Middletown area
Santana Row, CA	SUB	West Valley Corporate Center
Shirlington, VA	SUB	Park Center (office park)
South Coast Town Center, CA	SUB	Colton Lake Center (office park)
Southlake Town Square, TX	SUB	Westlake Campus (office park)
SouthPark, NC	SUB	Ballantyne Corporate Park
Towson Town Center, MD	SUB	Hunt Valley Business Park
Westfield UTC, CA	SUB	Mira Mesa area
The Woodlands Town Center, TX	SUB	Greenspoint Mall Area

*Types are defined as follows: SUB, suburban redevelopment/infill development; TC, established town center core area; TOD, transit-oriented development.

The comparative results for rents and vacancy rates in the first quarter of 2013 are presented in Figures 17 and 18. Suburban vibrant centers are performing significantly better than typical suburban office space for these two important measures. Rents are higher by $3.39 and vacancy rates are lower by 4.5 percent in suburban vibrant centers, findings that are significant at the 1 percent level.

Figure 17

Average Asking Rents, Q1 2013, in Suburban Vibrant Centers and Their Comparable Suburban Submarket or Office Park

Suburban Vibrant Center	Average Asking Rent, SVC[1]	Average Asking Rent, COMP[2]	SVC-COMP Rent Difference
Birmingham, MI	$27.24	$22.57	$4.67
Boulder, CO	30.70	17.77	12.93
Clayton, MO	22.49	18.13	4.36
Frederick, MD	18.09	20.77	-2.68
Old Town Alexandria, VA	30.06	31.12	-1.06
Old Town Pasadena, CA	29.41	28.85	0.56
Princeton, NJ	26.19	23.47	2.72
Redmond, WA	26.03	23.28	2.75
Reston Town Center, VA	32.94	26.01	6.93
Somerville, MA	27.47	18.73	8.74
Stamford, CT	37.58	34.32	3.26
Waltham, MA	17.60	26.63	-9.03
White Plains, NY	30.49	26.96	3.53
Winter Park, FL	26.93	17.84	9.09
Ballston, VA	40.70	29.76	10.94
Decatur, GA	20.78	16.33	4.45
Evanston, IL	26.19	18.62	7.57
Highland Park, IL	25.58	18.79	6.79
Lowell, MA	14.88	17.03	-2.15
Oak Park, IL	22.32	18.62	3.70
Silver Spring, MD	27.64	22.50	5.14
Buckhead Station, GA	25.64	24.26	1.38
Morristown, NJ	26.61	20.76	5.85
San Mateo, CA	33.74	37.54	-3.80
Walnut Creek, CA	28.35	23.53	4.82
Belmar, CO	14.20	15.88	-1.68
Blue Back Square, CT	25.84	19.39	6.45
CityPlace FL	34.03	22.88	11.15
Country Club Plaza, MO	22.76	17.20	5.56
Culver City, CA	32.60	28.41	4.19
Hillsboro Village, TN	18.31	26.43	-8.12
Mizner Park, FL	30.16	22.19	7.97
Mueller Redevelopment, TX	22.98	16.63	6.35
Red Bank, NJ	23.66	29.31	-5.65
Santana Row, CA	31.44	25.26	6.18
Shirlington, VA	23.24	29.63	-6.39
South Coast Town Center, CA	23.13	18.43	4.70
Southlake Town Square, TX	26.00	22.67	3.33
SouthPark, NC	21.76	23.22	-1.46
Towson Town Center, MD	18.99	20.99	-2.00
Westfield UTC, CA	33.47	26.96	6.51
The Woodlands Town Center, TX	37.12	23.32	13.80
Average	**$26.56**	**$23.17**	
Average Difference			**$3.39**

[1]Suburban vibrant center.
[2]Comparable traditional single-use suburban submarket or office park; see Figure 16 and Appendix G for descriptions and definitions.

Figure 18

Vacancy Rates, Q1 2013, in Suburban Vibrant Centers and Their Comparable Suburban Submarket or Office Park

Suburban Vibrant Center	Vacancy Rate, SVC[1]	Vacancy Rate, COMP[2]	SVC-COMP Vacancy Rate Difference
Birmingham, MI	9.4%	13.7%	-4.3%
Boulder, CO	5.0	7.0	-2.0
Clayton, MO	10.2	15.7	-5.5
Frederick, MD	10.3	20.8	-10.5
Old Town Alexandria, VA	8.5	29.3	-20.8
Old Town Pasadena, CA	5.4	21.0	-15.6
Princeton, NJ	10.4	17.1	-6.7
Redmond, WA	5.1	9.3	-4.2
Reston Town Center, VA	13.4	21.9	-8.5
Somerville, MA	1.3	8.1	-6.8
Stamford, CT	21.3	19.7	1.6
Waltham, MA	1.9	13.1	-11.2
White Plains, NY	17.1	17.7	-0.6
Winter Park, FL	10.4	6.8	3.6
Ballston, VA	14.8	16.1	-1.3
Decatur, GA	9.0	19.0	-10.0
Evanston, IL	10.4	9.3	1.1
Highland Park, IL	9.0	12.9	-3.9
Lowell, MA	13.3	15.4	-2.1
Oak Park, IL	15.6	9.3	6.3
Silver Spring, MD	12.0	19.0	-7.0
Buckhead Station, GA	16.9	18.1	-1.2
Morristown, NJ	13.1	12.7	0.4
San Mateo, CA	4.8	9.6	-4.8
Walnut Creek, CA	11.2	1.9	9.3
Belmar, CO	4.2	27.6	-23.4
Blue Back Square, CT	4.2	12.6	-8.4
CityPlace, FL	14.1	20.9	-6.8
Country Club Plaza, MO	12.1	8.2	3.9
Culver City, CA	8.6	17.7	-9.1
Hillsboro Village, TN	1.5	2.1	-0.6
Mizner Park, FL	11.9	29.5	-17.6
Mueller Redevelopment, TX	0.0	8.5	-8.5
Red Bank, NJ	9.5	15.8	-6.3
Santana Row, CA	4.1	4.5	-0.4
Shirlington, VA	14.1	34.8	-20.7
South Coast Town Center, CA	20.9	3.1	17.8
Southlake Town Square, TX	5.6	17.0	-11.4
SouthPark, NC	8.2	11.7	-3.5
Towson Town Center, MD	14.5	6.9	7.6
Westfield UTC, CA	9.1	6.9	2.2
The Woodlands Town Center, TX	0.4	1.1	-0.7
Average	**9.59%**	**14.13%**	
Average Difference			**-4.5%**

[1]Suburban vibrant center.

[2]Comparable traditional single-use suburban submarket or office park; see Figure 16 and Appendix G for descriptions and definitions.

From 2005 to 2013, relative absorption is 6.27 percent greater in suburban vibrant centers, as shown in Figure 19. The result is not statistically significant, however, because the differences from place to place are quite variable.

Figure 19

Absorption Rates in Suburban Vibrant Centers and Their Comparable Suburban Submarket or Office Park, Occupancy 1Q 2013/1Q 2005

Suburban Vibrant Center	Absorption Rate, SVC[1]	Absorption Rate, COMP[2]	SVC-COMP Absorption Rate Difference
Birmingham, MI	1.0768	1.0082	6.86%
Boulder, CO	1.1597	1.1547	0.50
Clayton, MO	1.1168	1.0230	9.38
Frederick, MD	1.0965	1.1659	-6.94
Old Town Alexandria, VA	0.9906	0.8324	15.82
Old Town Pasadena, CA	0.9816	1.0317	-5.01
Princeton, NJ	1.0390	0.9762	6.28
Redmond, WA	1.2040	1.0910	11.30
Reston Town Center, VA	1.1013	0.9890	11.23
Somerville, MA	1.1395	1.1478	-0.83
Stamford, CT	0.9475	0.9840	-3.65
Waltham, MA	1.0660	1.1836	-11.76
White Plains, NY	0.9596	0.9590	0.06
Winter Park, FL	1.2045	1.0454	15.91
Ballston, VA	1.3131	1.0205	29.26
Decatur, GA	0.9816	0.9424	3.92
Evanston, IL	1.0390	1.0926	-5.36
Highland Park, IL	1.0174	1.0906	-7.32
Lowell, MA	0.9579	1.0692	-11.13
Oak Park, IL	0.9749	0.9389	3.60
Silver Spring, MD	0.9714	0.9185	5.29
Buckhead Station, GA	1.3230	1.0159	30.71
Morristown, NJ	1.0183	1.1264	-10.81
San Mateo, CA	1.0766	1.0282	4.84
Walnut Creek, CA	1.0075	1.0885	-8.10
Belmar, CO	1.4846	0.8019	68.27
Blue Back Square, CT	1.2123	1.0253	18.70
CityPlace, FL	1.2754	1.0381	23.73
Country Club Plaza, MO	0.9527	1.0120	-5.93
Culver City, CA	1.0394	1.2542	-21.48
Hillsboro Village, TN	1.0269	0.9957	3.12
Mizner Park, FL	0.9723	0.8755	9.68
Mueller Redevelopment, TX	1.8220	1.1420	68.00
Red Bank, NJ	1.0434	0.9405	10.29
Santana Row, CA	1.1390	1.0843	5.47
Shirlington, VA	1.2000	0.7382	46.18
South Coast Town Center, CA	0.9295	1.0100	-8.05
Southlake Town Square, TX	1.3153	1.2639	5.14
SouthPark, NC	1.1345	1.6285	-49.40
Towson Town Center, MD	1.0006	1.2187	-21.81
Westfield UTC, CA	1.0899	1.2231	-13.32
The Woodlands Town Center, TX	1.4653	1.0595	40.58
Average	**1.115886**	**1.053214**	
Average Difference			**6.27%**

[1]Suburban vibrant center.
[2]Comparable traditional single-use suburban submarket or office park; see Figure 16 and Appendix G for descriptions and definitions.

The change measured for rents from the first quarter of 2009 through the first quarter of 2013 and from the first quarter of 2005 through the first quarter of 2013 are shown in Figures 20 and 21. In both suburban vibrant centers and typical suburban office space, rents decreased since 2009 and increased since 2005. These outcomes are not different enough to be statistically significant.

Figure 20

Change in Rents, Q1 2009-Q1 2013 in Suburban Vibrant Centers and Their Comparable Suburban Submarket or Office Park

Suburban Vibrant Center	Rent Change, SVC[1]	Rent Change, COMP[2]	SVC-COMP Rent Change Difference
Birmingham, MI	-7.95%	-10.69%	2.74%
Boulder, CO	14.81	-4.05	18.86
Clayton, MO	-3.10	-4.23	1.13
Frederick, MD	-18.40	-12.33	-6.07
Old Town Alexandria, VA	2.42	10.87	-8.45
Old Town Pasadena, CA	-2.68	-16.93	14.25
Princeton, NJ	2.79	16.53	-13.74
Redmond, WA	-19.19	-9.06	-10.13
Reston Town Center, VA	-1.88	-10.50	8.62
Somerville, MA	-8.00	2.29	-10.29
Stamford, CT	0.56	-16.07	16.63
Waltham, MA	-9.00	-1.15	-7.85
White Plains, NY	-5.52	-10.49	4.97
Winter Park, FL	-14.62	-23.53	8.91
Ballston, VA	10.87	0.54	10.33
Decatur, GA	-8.74	0.06	-8.80
Evanston, IL	2.79	-12.21	15.00
Highland Park, IL	-0.62	-10.69	10.07
Lowell, MA	-0.73	-9.08	8.35
Oak Park, IL	-2.83	-12.21	9.38
Silver Spring, MD	-5.41	2.55	-7.96
Buckhead Station, GA	-14.02	-8.87	-5.15
Morristown, NJ	-6.80	-43.15	36.35
San Mateo, CA	19.01	4.57	14.44
Walnut Creek, CA	-13.75	35.15	-48.90
Belmar, CO	-10.97	-3.47	-7.50
Blue Back Square, CT	-0.69	-11.50	10.81
CityPlace, FL	-14.17	-16.77	2.60
Country Club Plaza, MO	-6.34	-32.23	25.89
Culver City, CA	-7.78	-13.38	5.60
Hillsboro Village, TN	-10.25	11.47	-21.72
Mizner Park, FL	-5.78	-5.21	-0.57
Mueller Redevelopment, TX	0.00	-0.83	0.83
Red Bank, NJ	-21.60	-0.20	-21.40
Santana Row, CA	-8.87	18.81	-27.68
Shirlington, VA	-31.99	9.86	-41.85
South Coast Town Center, CA	-22.87	-11.44	-11.43
Southlake Town Square, TX	-4.80	-21.31	16.51
SouthPark, NC	-1.94	9.12	-11.06
Towson Town Center, MD	-3.60	4.90	-8.50
Westfield UTC, CA	-7.39	9.73	-17.12
The Woodlands Town Center, TX	19.70	8.01	11.69
Average	**-5.46%**	**-4.46%**	
Average Difference			**-1.01%**

[1]Suburban vibrant center.
[2]Comparable traditional single-use suburban submarket or office park; see Figure 16 and Appendix G for descriptions and definitions.

Figure 21

Change in Rents, Q1 2005-Q1 2013 in Suburban Vibrant Centers and Their Comparable Suburban Submarket or Office Park

Suburban Vibrant Center	Rent Change, SVC[1]	Rent Change, COMP[2]	VC-SUB Rent Change Difference
Birmingham, MI	5.38%	-4.40%	9.78%
Boulder, CO	25.87	15.17	10.70
Clayton, MO	-2.64	-3.05	0.41
Frederick, MD	-15.66	11.19	-26.85
Old Town Alexandria, VA	11.13	24.88	-13.75
Old Town Pasadena, CA	8.40	14.21	-5.81
Princeton, NJ	-5.66	0.77	-6.43
Redmond, WA	29.18	33.10	-3.92
Reston Town Center, VA	18.32	4.96	13.36
Somerville, MA	44.35	-49.51	93.86
Stamford, CT	23.33	9.44	13.89
Waltham, MA	-26.30	18.25	-44.55
White Plains, NY	16.06	-1.89	17.95
Winter Park, FL	19.53	11.85	7.68
Ballston, VA	20.20	17.03	3.17
Decatur, GA	8.51	-0.73	9.24
Evanston, IL	-5.66	-17.57	11.91
Highland Park, IL	23.52	-9.79	33.31
Lowell, MA	-4.06	28.14	-32.20
Oak Park, IL	3.86	-17.57	21.43
Silver Spring, MD	17.52	9.17	8.35
Buckhead Station, GA	7.46	1.98	5.48
Morristown, NJ	0.23	-39.81	40.04
San Mateo, CA	37.88	71.18	-33.30
Walnut Creek, CA	-4.13	-6.70	2.57
Belmar, CO	-23.53	-6.64	-16.89
Blue Back Square, CT	-8.43	-4.34	-4.09
CityPlace, FL	25.57	-0.65	26.22
Country Club Plaza, MO	-1.09	14.67	-15.76
Culver City, CA	8.74	19.72	-10.98
Hillsboro Village, TN	12.89	16.28	-3.39
Mizner Park, FL	-5.57	5.82	-11.39
Mueller Redevelopment, TX	39.27	14.85	24.42
Red Bank, NJ	15.02	1.56	13.46
Santana Row, CA	25.01	56.99	-31.98
Shirlington, VA	-10.96	16.70	-27.66
South Coast Town Center, CA	-20.49	6.22	-26.71
Southlake Town Square, TX	1.36	10.96	-9.60
SouthPark, NC	10.34	5.59	4.75
Towson Town Center, MD	0.85	7.37	-6.52
Westfield UTC, CA	-1.79	0.15	-1.94
The Woodlands Town Center, TX	64.98	8.47	56.51
Average	**9.26%**	**7.00%**	
Average Difference			**2.26%**

[1]Suburban vibrant center.

[2]Comparable traditional single-use suburban submarket or office park; see Figure 16 and Appendix G for descriptions and definitions.

Changes in vacancies from the first quarter of 2009 through the first quarter of 2013 and from the first quarters in 2005 and 2013 are shown in Figures 22 and 23. Vacancies have increased much more modestly in suburban vibrant centers, by about 3 percent in each period. Compared to suburban vacancies, the 17.68 percent difference since the recession is not statistically significant, but the 23.67 percent difference since 2005 is significant at the 5 percent level.

Figure 22

Change in Vacancy Rates, Q1 2009-Q1 2013 in Suburban Vibrant Centers and Their Comparable Suburban Submarket or Office Park

Suburban Vibrant Center	Vacancy Change, SVC[1]	Vacancy Change, COMP[2]	VC-SUB Vacancy Change Difference
Birmingham, MI	-13.76%	19.13%	-32.89%
Boulder, CO	-48.45	-40.17	-8.28
Clayton, MO	25.93	55.45	-29.52
Frederick, MD	9.57	-12.24	21.81
Old Town Alexandria, VA	14.86	154.78	-139.92
Old Town Pasadena, CA	42.11	7.69	34.42
Princeton, NJ	3.70	-6.04	9.74
Redmond, WA	-48.48	36.76	-85.24
Reston Town Center, VA	-16.25	11.73	-27.98
Somerville, MA	-59.38	-8.99	-50.39
Stamford, CT	97.22	71.30	25.92
Waltham, MA	-54.76	-16.03	-38.73
White Plains, NY	33.59	47.50	-13.91
Winter Park, FL	-25.18	-13.92	-11.26
Ballston, VA	169.09	18.38	150.71
Decatur, GA	-16.67	66.67	-83.34
Evanston, IL	-3.70	-2.11	-1.59
Highland Park, IL	20.00	9.32	10.68
Lowell, MA	46.15	27.27	18.88
Oak Park, IL	75.28	-2.11	77.39
Silver Spring, MD	15.38	43.94	-28.56
Buckhead Station, GA	12.67	30.22	-17.55
Morristown, NJ	45.56	51.19	-5.63
San Mateo, CA	-5.88	-63.08	57.20
Walnut Creek, CA	-20.00	-65.45	45.45
Belmar, CO	-34.38	80.39	-114.77
Blue Back Square, CT	-51.16	-9.35	-41.81
CityPlace, FL	-14.02	-10.68	-3.34
Country Club Plaza, MO	5.22	127.78	-122.56
Culver City, CA	100.00	-21.68	121.68
Hillsboro Village, TN	0.00	-46.15	46.15
Mizner Park, FL	8.18	-14.24	22.42
Mueller Redevelopment, TX	-100.00	-17.48	-82.52
Red Bank, NJ	1.06	327.03	-325.97
Santana Row, CA	-66.94	-40.79	-26.15
Shirlington, VA	200.00	197.44	2.56
South Coast Town Center, CA	22.22	0.00	22.22
Southlake Town Square, TX	-52.54	-7.61	-44.93
SouthPark, NC	-28.70	13.59	-42.29
Towson Town Center, MD	0.69	9.52	-8.83
Westfield UTC, CA	-50.81	-50.00	-0.81
The Woodlands Town Center, TX	-96.55	-75.56	-20.99
Average	**3.35%**	**21.03%**	
Average Difference			**-17.68%**

[1]Suburban vibrant center.
[2]Comparable traditional single-use suburban submarket or office park; see Figure 16 and Appendix G for descriptions and definitions.

Figure 23

Change in Vacancy Rates, Q1 2005-Q1 2013 in Suburban Vibrant Centers and Their Comparable Suburban Submarket or Office Park

Suburban Vibrant Center	Vacancy Change, SVC[1]	Vacancy Change, COMP[2]	VC-COMP Vacancy Rate Difference
Birmingham, MI	17.50%	53.93%	-36.43%
Boulder, CO	-70.41	-58.58	-11.83
Clayton, MO	-20.31	21.71	-42.02
Frederick, MD	-3.74	87.39	-91.13
Old Town Alexandria, VA	26.87	128.91	-102.04
Old Town Pasadena, CA	63.64	45.83	17.81
Princeton, NJ	-24.09	64.42	-88.51
Redmond, WA	-60.77	-14.68	-46.09
Reston Town Center, VA	116.13	50.00	66.13
Somerville, MA	-83.95	-56.22	-27.73
Stamford, CT	26.04	75.89	-49.85
Waltham, MA	-66.67	-29.19	-37.48
White Plains, NY	34.65	27.34	7.31
Winter Park, FL	22.35	19.30	3.05
Ballston, VA	6.47	15.83	-9.36
Decatur, GA	23.29	43.94	-20.65
Evanston, IL	-24.09	-30.08	5.99
Highland Park, IL	15.38	-1.53	16.91
Lowell, MA	51.14	-20.21	71.35
Oak Park, IL	16.42	-30.08	46.50
Silver Spring, MD	42.86	100.00	-57.14
Buckhead Station, GA	24.26	52.10	-27.84
Morristown, NJ	3.97	115.25	-111.28
San Mateo, CA	-57.14	-20.66	-36.48
Walnut Creek, CA	0.90	-80.81	81.71
Belmar, CO	-63.79	181.63	-245.42
Blue Back Square, CT	61.54	23.53	38.01
CityPlace, FL	12.80	154.88	-142.08
Country Club Plaza, MO	61.33	115.79	-54.46
Culver City, CA	22.86	18.79	4.07
Hillsboro Village, TN	-63.41	23.53	-86.94
Mizner Park, FL	35.23	130.47	-95.24
Mueller Redevelopment, TX	-100.00	-57.29	-42.71
Red Bank, NJ	37.68	51.92	-14.24
Santana Row, CA	-30.51	66.67	-97.18
Shirlington, VA	235.71	200.00	35.71
South Coast Town Center, CA	40.27	-22.50	62.77
Southlake Town Square, TX	-18.84	-50.44	31.60
SouthPark, NC	-35.43	-55.34	19.91
Towson Town Center, MD	15.08	-48.89	63.97
Westfield UTC, CA	-45.18	-61.02	15.84
The Woodlands Town Center, TX	-92.31	-83.58	-8.73
Average	**3.66%**	**27.33%**	
Average Difference			**-23.67%**

[1]Suburban vibrant center.

[2]Comparable traditional single-use suburban submarket or office park; see Figure 16 and Appendix G for descriptions and definitions.

In summary, no meaningful difference exists for the two measures of rent changes. For the other five measures, office space in suburban vibrant centers outperforms typical suburban office space; differences in asking rents, vacancy rates and changes in vacancies since 2005 are statistically significant. In suburban vibrant centers, absorption is higher and vacancies from 2009 increased less, but neither difference is statistically significant. Overall, the comparisons indicate much stronger performance for suburban vibrant centers than for typical suburban office environments. These results are consistent with the results for second- and third-tier markets reported in Appendix F.

Conclusions

Summary of Preference and Performance Findings

Central business districts (CBDs) typically feature higher densities, larger and older buildings, fewer vacant parcels and more redeveloped infill sites than suburban areas. The suburbs have lower densities, smaller and newer buildings and ample greenfield sites. Entitlements for new development are more complex and time consuming in CBDs than in suburban settings. Given these inherent differences, one would expect office rents to be higher in CBDs than in their suburbs and absorption rates to be higher in the suburbs than in their CBDs. The performance results support these expectations.

When vacancy rates in CBDs are compared to those in their suburban areas, the results indicate similar performance. Vacancy rates are lower in first-tier CBDs, higher in second-tier CBDs, and about the same in third-tier CBDs compared to their suburbs. The differences are not statistically significant. Therefore, the absence of clear location preferences for either downtowns or suburban areas reported in preference surveys is consistent with these performance results.

The performance analysis supports the strong location preference for suburban vibrant centers. When suburban vibrant centers are paired with comparable suburban submarkets or office parks, rents are found to be significantly higher and vacancy rates significantly lower in the suburban vibrant centers. Suburban vibrant centers also have higher absorption rates than typical single-use suburban office areas, although the difference is not statistically significant.

For the 33 second- and third-tier markets described in Appendix F, vibrant centers perform better than suburban areas for all seven indicators. Vibrant centers perform better than CBDs on five of seven indicators and have about the same value for the other two. (See Figure 3 on page 4.)

In summary, the answers to the five questions addressed in this study are as follow:

1. **Do office tenants prefer CBDs to suburban areas?** Sometimes they do, sometimes they don't. Location preferences primarily depend on company priorities and on the area's economic base and spatial structure.

2. **Do office tenants prefer suburban vibrant centers to typical single-use suburban environments?** Yes, they do.

3. **Are office properties in CBDs performing better than those in suburban office areas?** Yes, for rent level and rent changes; no difference in vacancy rates; no, for absorption (less absorption in CBDs).

4. **Are office properties in suburban vibrant centers outperforming those in typical single-use suburban office areas?** Yes, for almost all metrics.

5. **Are suburban vibrant centers preferred to or performing better than CBDs in their market areas?** Preference depends on the specific area; vibrant center performance is the same as or better than CBD performance.

Appendix A

Research on Location Preferences

In September 2013, the research team contacted commercial brokers John Kerr, Peter Pace and Brian Wallace of York Properties in the Raleigh, North Carolina, area who they knew professionally to pretest the survey, which was revised on the basis of their feedback. Jim Anthony, who directs the Colliers International office in Raleigh, flagged Colliers' upcoming national conference in Atlanta. The research associate went to the conference and completed 40 interviews on-site in two days. The primary investigator (PI) attended a staff meeting at the Colliers Raleigh office and surveyed eight brokers in attendance. We compiled over 50 survey responses in all after making follow-up calls to Colliers brokers and receiving additional responses from other Raleigh-area brokers.

With the list of contacts provided by Margarita Foster from NAIOP, the PI reached out to five major commercial real estate firms. Kevin Thorpe, chief economist, and Anna Taylor at Cassidy Turley devised an intranet version of the survey and sent it to the firm's office brokers several times in October and November 2013. The effort generated 47 responses from Cassidy Turley brokers.

CBRE declined to participate, indicating that the firm was engaged in a similar study.

Two firms, JLL and Cushman & Wakefield (C&W), preferred to involve research staff instead of brokers. The researchers offered information on downtowns, suburban vibrant centers and suburban locations in their market areas.

This alternative created an opportunity not considered in the original research design. These researchers had knowledge of tenant preferences in one or more markets and provided definitive information in response to the survey, as well as contextual insights and internal reports. They also provided performance assessments of their market(s) that the PI compared to the results of the analysis based on CoStar data. This feedback was valuable corroboration, since the researchers' insights were based on their considerable experience in those markets and on their firms' proprietary databases.

John Sikaitis identified the following JLL researchers who participated in the study: Abel Balwierz (Minneapolis/St. Paul), Andrew Batson (Pittsburgh), Walter Bialas (Dallas-Fort Worth), Scott Homa (Washington, D.C.), Graham Hildebrand (Houston), Matt Kolano (Phoenix), Robert Kramp (Chicago), Lori Mabardi (Boston), Devon Parry (LA), Patricia Raicht (Seattle), Amber Schiada (San Francisco, San Jose, Oakland), Amanda Seyfried (Denver), Roberta Steen (Miami), Blaise Tomazic (St. Louis), Elliot Williams (Sacramento) and Geoff Wright (Philadelphia).

Maria Sicola and Faith Ramsour connected the PI to the following C&W researchers: Andrea Arata (Bay Area and Sacramento), Matt Christian (Seattle), Petra Durnin (LA), Pam Flora (San Diego), Robert Hoefer (Houston), Sharon Joyce (Boston), Brian Larson (Denver), Melissa Laneve and Warren Smith (Nashville), Logan Menne (Atlanta), Donald Noland (Northeast), Chris Owen (Orlando) and Lauren Pace (Miami/South Florida).

The research team interviewed 128 brokers and researchers. One or more respondents were located in each of the following 46 areas: Atlanta, Baltimore, Bethesda, Maryland, Boise, Idaho, Boston, Burlingame, California, Charleston, South Carolina, Charlotte, North Carolina, Chatham, New Jersey, Chicago, Columbia, Maryland, Dallas-Fort Worth, Denver, Detroit, Fort Lauderdale, Florida, Hartford, Connecticut, Houston, Indianapolis, Kansas City, Kansas and Missouri, Los Angeles, Memphis, Tennessee, Miami, Minneapolis/St. Paul, Monterey/Santa Cruz, California, Nashville, Tennessee, New York, Oakland/East Bay, California, Omaha, Nebraska, Orlando, Florida, Palo Alto, California, Philadelphia, Phoenix, Pittsburgh, Pleasanton, California, Princeton, New Jersey, Providence, Rhode Island, Raleigh, North Carolina, San Diego, San Francisco, San Jose, California, Seattle, Stamford, Connecticut, St. Louis, Tampa, Florida, Toronto and Washington, D.C.

The number of interviews is sufficiently large for the research team to have confidence in the results. Limiting the length of the survey to about five minutes appears to have increased the response rate.

Appendix B

Survey Questionnaire
NAIOP Interview Questionnaire
Vibrant Centers Project

Several versions of this basic questionnaire were used to gather information from office brokers.

1. **Do you lease office space exclusively in Suburban areas of your market or do you also lease space Downtown?**

   If Downtown and Suburban, go to 2.
   If exclusively Suburban, go to 4.

2. **Do prospective tenants you've talked to recently want to locate primarily Downtown or in Suburban locations like suburban office parks or office campuses?**

   Check one:
   ☐ Downtown preferred
   ☐ Suburban preferred

   If Downtown, go to 3.
   If Suburban, go to 4.

3. **Is this preference for Downtown office space a change you've detected in the past few years or did this change start earlier?**

   Check one:
   ☐ Past few years
   ☐ Longer-term trend
   ☐ Neither: very recent

4. **With respect to compact, mixed-use, walkable places located in suburban areas that we call "vibrant centers": are prospective tenants interested in being in or near these vibrant centers more than in traditional Suburban office locations?**

   Check one:
   ☐ Yes
   ☐ No

   If Yes, go to 5.
   If No, go to 6.

5. **Is this preference for Suburban Vibrant Centers a change you've detected in the past few years or did this change start earlier?**

   Check one:
   ☐ Past few years
   ☐ Longer-term trend
   ☐ Neither: very recent

6. **As a final question, we'd like your opinion about tenant preferences for office space in Suburban Vibrant Centers compared to Downtown office space. In which area do you think most of your prospective tenants would prefer to locate?**

   Check one:
   ☐ Suburban Vibrant Centers
   ☐ Downtown
   ☐ Indifferent/Either one

Name: _____

Location: _____

NAIOP will be publishing a report on our findings early next year. We plan to make the report available to your firm for distribution. **Thank you for your time!**

Appendix C
Selected CoStar Market Areas

The analysis includes the following 53 CoStar market areas:

Alabama
- Birmingham

Arizona
- Phoenix

California
- East Bay/Oakland
- Inland Empire (a suburb of Los Angeles)
- Los Angeles
- Orange County
- Sacramento
- San Diego
- San Francisco
- South Bay (San Jose)

Colorado
- Denver

Connecticut
- Hartford

District of Columbia
- Washington

Florida
- Jacksonville
- Miami-Dade County
- Orlando
- Tampa

Georgia
- Atlanta

Illinois
- Chicago

Indiana
- Indianapolis

Kansas (see Missouri)

Massachusetts
- Boston

Maryland
- Baltimore

Michigan
- Detroit
- Western Michigan

Minnesota
- Minneapolis/St. Paul

Missouri
- Kansas City (includes Kansas City, Kansas)
- St. Louis

Nevada
- Las Vegas

New Jersey
- Northern New Jersey (a suburb of New York City)

New Mexico
- Albuquerque

New York
- Long Island
- New York City
- Rochester
- Westchester/Southwest Connecticut

North Carolina
- Charlotte
- Greensboro/Winston-Salem
- Raleigh/Durham

Ohio
- Cincinnati/Dayton
- Cleveland
- Columbus

Oklahoma
- Tulsa

Oregon
- Portland

Pennsylvania
- Philadelphia
- Pittsburgh

Tennessee
- Nashville

Texas
- Austin
- Dallas-Fort Worth
- Houston
- San Antonio

Utah
- Salt Lake City

Virginia
- Richmond

Washington
- Seattle

Wisconsin
- Milwaukee/Madison

Appendix D

Research Methods for the Performance Analysis

The initial analysis for the 10 largest (first-tier) office markets was completed for two purposes:

1. To compare first-tier CBDs to their suburbs in markets that contained almost half of the national office inventory (47 percent); and

2. To assess the differences between using the entire inventory of office space and Class A office space only.

The measures for first-quarter 2013 rents, first-quarter 2013 vacancy rates and eight-year absorption rates shown in Figures 6 and 7 were used to compare CBDs to their suburban areas for the entire inventory and for Class A office space. The results for Class A space (more homogeneous, newer inventory with larger buildings) were very close to the results for all existing office space. Although no formal statistical tests were used given the small number of observations, these similar results suggested that Class A space need not be analyzed separately. The sources were CoStar's first-quarter 2013 report for the national office market and its property analysis database, which is organized by market and submarket.

The original research design called for three comparisons in 33 second- and third-tier office markets where NAIOP members were active: 1) suburban vibrant centers to entire suburban areas, 2) suburban vibrant centers to CBDs and 3) CBDs to their surrounding suburban areas. The comparisons between vibrant centers and suburbs and between vibrant centers and CBDs generated definitive results, but the CBD-suburban comparisons were ambiguous. This initial analysis is summarized in Appendix F.

The PI therefore decided to directly compare CBDs to their suburbs in the largest office markets, those with rentable building area (RBA) of at least 60 million square feet. It also made sense to find the best examples of suburban vibrant centers across all markets in the continental U.S. and to compare each to a nearby typical suburban office park or submarket. This meant that many vibrant centers in first-tier markets would be included. Therefore, the report includes two statistical analyses of performance:

1. CBD to suburban comparisons for the 45 largest office markets with RBA over 60 million square feet; and

2. Suburban vibrant centers to comparable suburban office parks or submarkets for the best examples of suburban vibrant centers, which totaled 42.

All three analyses used the seven measures described in the "Measures" section below.

Database

To identify office properties, we used CoStar data, which provides information on commercial properties including over 10 billion square feet of office space in the U.S., to identify office properties. The database includes most urban office space and virtually all of the nation's 3.2 billion square feet of Class A space. CoStar provided access to its database through its CoStar University Program, and CoStar is cited throughout this report as the source of this data.

CoStar offers access to its data for different geographic configurations. One set is official delineations: state, county, city, ZIP code and census-defined metro areas. The other set is market driven. Market data are provided for 142 U.S. office markets, which are functional economic areas. Submarket data are available for each market area at two levels. Submarkets subdivide the office market into mutually exclusive subareas that may serve different market segments. Submarkets are grouped in larger CoStar-defined submarket clusters.

CoStar provides three functions to customize spatial delineations: "radius," "polygon" and "corridor." We used "radius" to define suburban vibrant centers and suburban office environments. These areas are circles with a radius of a half mile around an address at the center of the vibrant center (or suburban office park). In a few instances, we used the "corridor" function

when the suburban vibrant center (or suburban office park) is configured as a corridor (for example, as an area along a light-rail line that includes several stops). We used 500,000 square feet of RBA as the minimum size threshold. This threshold increased the reliability of the measures by assuring that each suburban vibrant center contained multiple office buildings; performance measures should not be based on one or two office buildings.

Geographic Areas

The research focused on three geographic areas: CBDs, suburban areas and suburban vibrant centers. CBDs are the core areas associated with downtowns, and usually are the oldest development in the region. Suburbs are the lower-density areas surrounding the CBD. All markets also contain non-CBD urban development (development that is outside the CBD but is more urban than suburban in character).

This research tested the usefulness of culling out non-CBD urban office space in first-tier markets. For example, in Chicago, all submarkets from West North Avenue above the Loop to I-55 on the South Side were removed from the suburban portion of the market. In San Francisco, all submarkets above Dale City were considered part of urban San Francisco and, again, removed from the tally of suburban office space. In these markets and in all other first-tier markets, removing non-CBD urban office space from the suburban portion of the market resulted in minor differences. Therefore, to include the entire market in the analysis, we studied CoStar-defined CBDs and the remainder of the market area (the suburban area). We consulted CoStar's research director on these geographic definitions of subareas, and he concurred with this approach, indicating that CoStar takes the same approach when producing its quarterly market reports.

In most markets, one submarket was identified as the CBD. In a few, the market area delineated by CoStar included two major CBDs. These CBDs were combined into one downtown/CBD area for that market. Some markets contain submarkets outside the major CBD that are defined specifically by CoStar as "downtown" or "CBD." These areas are relatively dense clusters of office space located within smaller cities that are part of the larger market area; for example, Long Beach in the LA market and downtown Burlington in Greensboro, North Carolina. Any submarket with this designation was not included in the suburban tally. The CBD definitions are presented in Appendix E.

Suburban vibrant centers, as discussed more fully in Appendix G, are the third type of geographic area studied. All of the vibrant centers studied are located outside CBDs and therefore part of suburban areas. The relatively small amount of office space in these centers was not pulled out of the suburban area statistics, since their small size would have minimal impact on the suburban measures.

The number of suburban vibrant centers in each of the 33 second- and third-tier markets ranges from one to three. They are listed in Appendix G. The 42 best examples of suburban vibrant centers are located in all three market tiers. These were identified as either suburban redevelopment or established town center. Both types of suburban vibrant center included some examples of transit-oriented development, as shown in Figures 15 and 16.

To summarize, CoStar divides each market into submarkets (and groupings of submarkets called submarket clusters). In most markets, one submarket (or cluster) is designated as the CBD or downtown. (In a few instances, an additional CBD or downtown may be identified.) CoStar classifies all other submarkets as suburban. Suburban vibrant centers are areas with a half-mile radius and at least 500,000 square feet of office space located in a suburban area.

Time Frame

Data were compiled for an eight-year period, from the first quarter of 2005 through 2009 and 2013. The first quarter of 2009 was the mid-point of the recent Great Recession; the first quarter of 2005 is 16 quarters (four years) earlier. The first quarter of 2013 is 16 quarters (four years) later, and was the most recent quarterly data available in June through August 2013, when the data were compiled. Over the course of the study, CoStar reported data for the second, third, and fourth quarters of 2013 as well as the first and second quarters of 2014.

Measures

CoStar measures the rentable building area (RBA) of office space, which consists of usable/rentable private space and assignable interior common areas. We compiled the following seven measures for each of the three geographic areas. (Median days vacant initially was included but ultimately was dropped from the analysis.)

1. **Asking rental rate in the first quarter of 2013.** CoStar finds the range and average quoted or asking rent for each office space and estimates the weighted average for the property and then for the market or submarket under study. Rent is the annual cost of occupancy per square foot per year converted to a full-service equivalent. Most office leases are written as full-service leases.

2. **Vacancy rate in the first quarter of 2013.** Vacancy rate is the amount of physically vacant space divided by total existing inventory, expressed as a percentage. CoStar carefully tracks relet and sublet space to determine whether space advertised as available is occupied or not.

3. **Absorption.** Absorption is the best measure of demand for office space. In this study, absorption is defined in relative terms as a rate of growth. The absorption rate is the physically occupied square footage in the first quarter of 2013 divided by the amount of space occupied in the first quarter of 2005. This ratio gives the rate of change in occupancy or absorption rate for this eight-year period. In markets with time series less than eight years, the absorption rate was scaled up to an eight-year equivalent. Thus, the measures represent an eight-year growth rate of realized space demand.

4. **Change in average rents after the Great Recession** (first-quarter 2009 to first-quarter 2013). All four change measures are shown as percentages. The difference between first-quarter 2013 rents and first-quarter 2009 rents divided by first-quarter 2009 rents is the rate of change since the Great Recession, which is centered at the first quarter of 2009.

5. **Change in average rents since 2005** (first-quarter 2005 to first-quarter 2013). The difference between first-quarter 2013 rents and first-quarter 2005 rents divided by first-quarter 2005 rents is the rate of change over the past eight years, which encompasses a full office market cycle reflecting a rise, peak, decline and slow rebound in demand and rents.

6. **Change in vacancy rate after the Great Recession** (first-quarter 2009 to first-quarter 2013). The difference between the first-quarter 2013 vacancy rate and the first-quarter 2009 vacancy rate divided by first-quarter 2009 vacancies is the rate of change since the Great Recession.

7. **Change in vacancy rate since 2005** (first quarter 2005 to first-quarter 2013). The difference between the first-quarter 2013 vacancy rate and the first-quarter 2005 vacancy rate divided by first-quarter 2005 vacancies is the rate of change in vacancies over the past eight years.

We used the CoStar submarkets database to generate results for CBDs and suburban areas. We used the radius function (described above) to generate results for each suburban vibrant center. In the analysis of 33 areas, measures for areas with two or three vibrant centers were found by calculating an average that was not weighted by the vibrant center's size (RBA). The absorption rate was found by adding occupancy in the two periods for all vibrant centers and measuring one overall absorption rate.

Difference-of-means tests were replicated for the seven performance measures listed above with different combinations of subareas. Each market represents one unit of analysis, regardless of size, and therefore has equal influence on the results.

Performance Analysis Explanation

We initially identified 45 metro areas in the 28 states with NAIOP chapters, with the exception of Hawaii. Three office markets (Detroit, Kansas City and St. Louis) were added to account for all markets with more than 100 million square feet of RBA in the first quarter of 2013. Another three (Richmond, Virginia, San Antonio and Western Michigan) were included to account for all office markets with more than 60 million square feet of RBA. Two more (Long Island and Orange County) were needed to complete the New York and Los Angeles markets, respectively. We used market data and submarket data to compile the measures for CBDs and suburban areas in these 53 markets. (See Appendix C for the complete list.) As noted, we used CoStar's radius (or corridor) function to define the suburban vibrant centers and the suburban office areas that were paired with the vibrant centers.

The first analysis used statistical tests to compare CBDs to suburban areas in the 45 markets with more than 60 million square feet of office space. This analysis answered the following question: Is downtown office space outperforming office space in the suburbs?

In the second analysis, we matched 42 examples of suburban vibrant centers, including 28 in first-tier markets, to suburban office areas to find suburban environments that were good comparisons to these vibrant centers. For each of the 21 suburban revitalized centers, we identified a suburban office park or office corridor with RBA of at least 1 million square feet as its comparable (comp). These are single-use, auto-dependent, low-density areas that could be called "plain vanilla" suburban office space. Office parks serving major institutions such as hospitals, universities or government agencies were avoided. Each office area is in the same quadrant of the market and has similar regional access to workers and households as the vibrant centers. The major difference is that these suburban locations rely on auto access via highways, whereas the vibrant centers are oriented to transit to the extent it is available in the region. The seven measures were calculated for each suburban vibrant center and suburban office park, and differences were computed for each suburban vibrant center-suburban office park pairing.

For the 21 vibrant centers that were in established towns and small cities, we used the remainder of the suburban submarkets in which they are located as the comp. For the residual area, each measure represents the difference between the measure for the entire submarket and the measure for the half-mile circle around the established town center. This approach of comparing an established center to its surrounding suburban area is the same as the approach taken in the first analysis, where the CBDs are compared to their suburban areas, which is the area that remains after extracting the CBD from the market area.

The differences computed for both groups of suburban vibrant centers were subjected to formal tests to determine their statistical significance.

The other analysis, reported in Appendix F, compared 33 second-tier and third-tier markets.

Appendix E

Central Business District and Suburban Area Definitions

CoStar divides all markets into submarkets and calls the central one(s) either the downtown submarket or the CBD submarket. CoStar terminology is used here. The New York, Los Angeles and Bay Area markets are so large that multiple CBDs (and comparable suburban areas) were identified in each.

First-tier Markets

(10, encompassing 17 CoStar market areas)

1. The **Greater New York City Market** includes the New York City, Long Island, Northern New Jersey and Westchester/Southwest Connecticut market areas.

   New York City
   The NYC market is defined as Downtown, Midtown and the rest of Manhattan Island; it is treated as the CBD for the NYC market area. The Westchester/Southwest Connecticut market is treated as the suburban area associated with NYC.

   Long Island
   The more urban portion, consisting of Brooklyn, Queens and Staten Island (eight submarkets) is treated as the CBD. Nassau and Suffolk Counties, which include 10 submarkets, are treated as the associated suburban area.

   Northern New Jersey
   The Hackensack, Hudson Waterfront, Newark, Passaic Urban Region and Urban Essex submarkets comprise the CBD for this market. The rest of this market is treated as the suburban area.

2. **Los Angeles**
   The Greater Downtown cluster is treated as the CBD. The Inland Empire (Riverside and San Bernardino counties), Orange County and the remainder of the Los Angeles market (the rest of LA County plus Ventura County), except Downtown Long Beach, is treated as the suburban portion of this market.

3. The **Bay Area** consists of three CoStar-defined markets: San Francisco, East Bay and South Bay.

   San Francisco
   The San Francisco market is defined as the Downtown cluster, consisting of the Financial District and South Financial District submarkets. The remainder of the San Francisco market is treated as suburban.

   East Bay/Oakland
   The Oakland CBD submarket is treated as the CBD. The remainder of the East Bay market is treated as suburban.

   South Bay/San Jose
   The Downtown East and Downtown West submarkets are treated as the CBD. The remainder of the San Jose market is treated as suburban.

For the following areas, the remaining portion of the market area is treated as the suburban area that surrounds the CBD, as defined below.

4. **Atlanta**
   The Downtown submarket

5. **Boston**
   The Boston/Suffolk County cluster with the Charleston/East Boston, North End/Waterfront and South Suffolk County submarkets removed

6. **Chicago**
   The Central Loop, East Loop, South Loop and West Loop submarkets

7. **Dallas-Fort Worth**
   The Dallas CBD and Fort Worth CBD submarkets

8. **Houston**
   CBD submarket

9. **Philadelphia**
   The CBD cluster, which includes the Independence Hall, Market Street East and Market Street West submarkets referred to as Center City

10. **Washington, D.C.**
    The Downtown cluster, which includes the CBD, East End and West End submarkets

Second-tier Markets
(16)

1. **Baltimore**
   CBD submarket

2. **Charlotte, North Carolina**
   CBD submarket

3. **Cleveland**
   CBD submarket

4. **Denver**
   CBD submarket

5. **Detroit**
   CBD submarket

6. **Kansas City, Kansas and Missouri**
   CBD and Downtown Kansas City, Kansas, submarkets

7. **Miami/Dade County**
   Miami CBD and Fort Lauderdale CBD; Miami is also the core of the three-county South Florida market

8. **Minneapolis/St. Paul**
   Minneapolis CBD and St. Paul CBD

9. **Orlando, Florida**
   Downtown submarket

10. **Phoenix**
    Downtown submarket

11. **Pittsburgh**
    CBD submarket

12. **Sacramento, California**
    Downtown submarket

13. **San Diego**
    Downtown submarket

14. **Seattle**
    CBD submarket

15. **St. Louis**
    CBD submarket

16. **Tampa, Florida**
    CBD submarket

Third-tier Markets
(20)

Italics indicate the three markets included only in the analysis of second- and third-tier markets described in Appendix F.

1. ***Albuquerque, New Mexico***
   Downtown submarket

2. **Austin, Texas**
   CBD submarket

3. ***Birmingham, Alabama***
   CBD submarket

4. **Cincinnati/Dayton**
   Cincinnati CBD and Dayton CBD submarkets

5. **Columbus, Ohio**
   Downtown submarket

6. ***Greensboro/Winston-Salem, North Carolina***
   Greensboro CBD and Winston-Salem CBD submarkets

7. **Hartford, Connecticut**
   Hartford submarket

8. **Indianapolis**
   CBD submarket

9. **Jacksonville, Florida**
   Downtown Northbank and Downtown Southbank submarkets

10. **Las Vegas**
    Downtown submarket

11. **Milwaukee/Madison**
    Downtown East and Downtown West Milwaukee submarkets and the Central Campus Madison submarket; the core area of the Central Campus Madison submarket is treated as a suburban vibrant town center.

12. **Nashville, Tennessee**
    Downtown submarket

13. **Portland, Oregon**
    CBD submarket

14. **Raleigh/Durham, North Carolina**
    Downtown Raleigh and Downtown Durham submarkets

15. **Richmond, Virginia**
    CBD submarket

16. **Rochester, New York**
    CBD submarket

17. **Salt Lake City**
    CBD submarket

18. **San Antonio**
    CBD submarket

19. **Tulsa, Oklahoma**
    CBD submarket

20. **Western Michigan**
    Downtown Grand Rapids, Lansing and Kalamazoo submarkets

Appendix F

Second- and Third-Tier Office Market Comparisons

The analysis of the 13 second-tier and 20 third-tier markets was comprehensive because all three pairwise comparisons were made. The detailed definition of suburban vibrant centers and the specific vibrant centers included in this analysis are presented in Appendix G. The comparisons for these 33 areas are summarized in the tables below. The suburban vibrant center-suburban area comparisons are in Appendix F-1; the CBD-suburban vibrant center comparisons are in Appendix F-2. The CBD-suburban area comparisons are in Appendix F-3. Results in Appendix F-3 are not described further because they are completely consistent with the CBD-suburban area results presented in the section titled "CBD-Suburban Area Comparisons for the 45 Largest Office Markets."

The need to find examples of suburban vibrant centers in each of the 33 second- and third-tier markets required including different types of vibrant centers. Some were better examples of vibrant centers than others. In some instances, the half-mile radius had to be expanded to get above the threshold of 500,000 square feet. This usually was done in markets where only one suburban vibrant center was identified, such as Birmingham, Alabama, and Indianapolis. In Rochester, New York, the suburban vibrant center was defined as a combination of the core areas of three villages located within the market area. Because of variety and quality differences among vibrant centers, the analysis of the best examples of suburban vibrant centers was added to the original research design. (See the section titled "Suburban Vibrant Center-Suburban Office Park or Submarket Comparisons.")

Suburban vibrant centers had higher rents on average than suburban areas. Vibrant center rents are $3.13 above suburban office rents. This difference is significant at the 1 percent level. The rent difference between suburban vibrant centers and CBDs is small and not significant.

Rents in suburban vibrant centers fell less than 1 percent from the first quarter of 2009, compared to declines of over 7 percent in suburban areas and over 3 percent in CBDs. The suburban vibrant center-suburban area difference is significant at the 5 percent level; the suburban vibrant center-CBD difference is not significant.

Rent changes for the eight years since the first quarter of 2005 indicate rent increases of 2.68 percent in suburban areas, 7.65 percent in suburban vibrant centers and 8.65 percent in CBDs. Although none of these differences is statistically significant, it is clear that, in terms of rent changes, suburban vibrant centers performed better than suburban areas and almost as well as CBDs. Overall, suburban vibrant centers performed relatively well for all three of the rent periods studied.

Suburban vibrant centers had far lower vacancy rates in the first quarter of 2013 than either suburban areas or CBDs. The differences were highly significant beyond the 1 percent level. At 8.14 percent, the vibrant center vacancy rate is more than 3 to 4 percent under the rates for the other two areas.

Suburban vibrant center vacancy rates fell by over 12 percent from the first quarter of 2009, which was better than either the suburban areas, where vacancies fell slightly, or CBDs, where vacancies increased by over 10 percent. The difference between suburban vibrant centers and CBDs is significant beyond the 1 percent level.

The performance of suburban vibrant centers since 2005 is even more impressive. Whereas vacancy rates increased by 7 to 8 percent in suburban areas and downtown, they decreased by almost 10 percent in suburban vibrant centers. Neither difference is statistically significant because of relatively large standard errors.

Finally, suburban vibrant centers absorbed relatively more demand since the first quarter of 2005, compared to both other areas, at 14.12 percent. The difference compared to CBDs is significant beyond the 1 percent level; the difference compared to suburbs is not significant. Some vibrant centers were built out during this period, which would boost absorption. Still, the strong performance of suburban vibrant centers indicates their relative attractiveness to tenants and investors.

The suburban vibrant centers analyzed in these 33 second- and third-tier office markets perform quite impressively compared to both suburban areas and CBDs. The seven measures for vibrant centers indicate better performance than in suburban areas; three of these seven differences are statistically significant. Vibrant centers do better than CBDs on all indicators, three of which are statistically significant. The finer-grained analysis described in the text indicates that these results are robust and not due to the particular group of 33 office markets selected.

Appendix F-1

Results for Suburban Vibrant Center-Suburban Area Comparisons in 33 Second- and Third-Tier Markets

	Rent, Q1 2013		Vacancy Rate, Q1 2013		Absorption, 2005-2013		Change in Rent, 2009-2013		Change in Rent, 2005-2013		Change in Vacancy, 2009-2013		Change in Vacancy, 2005-2013	
	SVC[1]	SUB[2]	SVC	SUB	SVC	SUB	SVC	SUB	SVC	SUB	SVC	SUB	SVC	SUB
Average[3]	$20.89	$17.76	8.1%	11.5%	1.141	1.114	-0.4%	-7.4%	7.7%	2.7%	-12.6%	-1.9%	-9.6%	9.2%
Standard e[4]	1.010		0.009		0.035		0.027		0.036		0.074		0.098	
df[5]	56		58		40		49		54		39		53	
cv 95%[6]	2.002		-2.002		2.021		2.010		2.005		-2.023		-2.006	
cv 99%[7]	2.665		-2.665		2.704		2.680		2.670		-2.708		-2.672	
t-statistic[8]	3.100		-3.590		0.769		2.642		1.372		-1.448		-1.908	

[1]Suburban vibrant center.
[2]Suburban area.
[3]The sum of the metric divided by an n of 33.
[4]Standard error of the estimate.
[5]Degrees of freedom.
[6]Critical value at the 95 percent level.
[7]Critical value at the 99 percent level.
[8]Test statistic or t-value for the comparison of means test.

Appendix F-2

Results for CBD-Suburban Vibrant Center Comparisons in 33 Second- and Third-Tier Markets

	Rent, Q1 2013		Vacancy Rate, Q1 2013		Absorption, 2005-2013		Change in Rent, 2009-2013		Change in Rent, 2005-2013		Change in Vacancy, 2009-2013		Change in Vacancy, 2005-2013	
	CDB[1]	SVC[2]	CBD	SVC	CBD	SVC	CBD	SVC	CBD	SVC	CBD	SVC	CBD	SVC
Average[3]	$20.27	$20.89	12.6%	8.1%	1.044	1.141	-3.2%	-0.4%	8.7%	7.7%	10.3%	-12.6%	10.8%	-9.6%
Standard e[4]	1.254		0.009		0.035		0.028		0.045		0.075		0.0102	
df[5]	63		63		39		55		64		41		57	
cv 95%[6]	1.998		1.998		-2.023		-2.004		1.998		2.020		2.002	
cv 99%[7]	2.665		2.665		-2.708		-2.668		2.655		2.701		2.665	
t-statistic[8]	0.495		4.442		-2.773		-1.009		0.222		3.035		2.001	

[1]Central business district/downtown.
[2]Suburban vibrant center.
[3-8]See Appendix F-1.

Appendix F-3

Results for CBD-Suburban Area Comparisons in 33 Second- and Third-Tier Markets

	Rent, Q1 2013		Vacancy Rate, Q1 2013		Absorption, 2005-2013		Change in Rent, 2009-2013		Change in Rent, 2005-2013		Change in Vacancy, 2009-2013		Change in Vacancy, 2005-2013	
	CDB[1]	SUB[2]	CBD	SUB	CBD	SUB	CBD	SUB	CBD	SUB	CBD	SUB	CBD	SUB
Average[3]	$20.27	$17.76	12.6%	11.5%	1.044	1.114	-3.2%	-7.4%	8.7%	2.7%	10.3%	-1.9%	10.8%	9.2%
Standard e[4]	1.091		0.009		0.016		0.020		0.038		0.035		0.077	
df[5]	53		62		64		62		51		62		63	
cv 95%[6]	2.006		1.999		-1.998		1.999		2.008		1.999		1.998	
cv 99%[7]	2.672		2.657		-2.655		2.657		2.676		2.657		2.656	
t-statistic[8]	2.302		1.312		-4.395		2.105		1.558		3.448		0.209	

[1]Central business district/downtown.
[2]Suburban area.
[3-8]See Appendix F-1.

Appendix G

Suburban Vibrant Centers and Their Comparables

We define vibrant centers as compact, employment-oriented areas of development or redevelopment with multiple connected land uses. They are higher density, more walkable, and far less auto dependent than typical suburban locations.

Vibrant centers can be defined more precisely by drawing from the published literature. Major contributors to this literature include Julie Campoli, Robert Cervero, Reid Ewing, Robert Fishman, Christopher Leinberger and Emily Talen.

Vibrant centers have the following characteristics:

- **Compact.** The center is coherent, bounded and dense (within its regional context), with commercial buildings of two stories or more.
- **Mixed Use.** Two or more uses can be found within multistory buildings, which typically feature retail space below residential and/or office space.
- **Multiple Use.** Different types of land uses (residential, commercial, industrial and/or institutional) are located in close proximity to provide needed goods and services and generate activity throughout the day and evening.
- **Walkable.** The urban design — including street patterns, intersection density, block lengths, street and sidewalk widths, building massing, setbacks, street-wall facades and parking — facilitates safe, convenient pedestrian movement.
- **Connected.** Trips to and from the center typically are feasible by transit, either rail or bus, as well as by car; internal trips are feasible by walking or bicycling.
- **Parking.** Metered street parking and parking structures accommodate private vehicles.
- **Density.** Job density is high; a combination of workers, residents and visitors/shoppers enlivens the center during the day and evening. High-density residential development is especially important to provide workforce housing and the purchasing power to support retail and personal services.
- **Public Places.** Open space within the center is public and available for special events, people watching, rest and relaxation.
- **Destination.** The center is an employment node with unique public venues that are popular places to socialize and conduct business.
- **Discrete.** The center has edges and boundaries that capture and contain additional development and redevelopment over time.
- **Critical Mass.** Additional development is a positive feature, because greater density usually increases vibrancy.

These characteristics help clarify the meaning of vibrant centers. However, not every suburban vibrant center included in this research meets every criterion.

Vibrant centers can be found in all parts of metro areas, from the center to the periphery. A viable CBD typically is a region's largest and, often, its strongest vibrant center. Many vibrant centers are connected by public transit (rail or bus), but others can be reached only by car.

Identification of Suburban Vibrant Centers and Their Comparable Submarkets or Office Parks

Published work, expert advice and personal knowledge led to our identification of the suburban vibrant centers included in this analysis. The Urban Land Institute (ULI), the Brookings Institution, the U.S. Environmental Protection Agency, and Smart Growth America and other smart growth organizations publish useful information. The experts consulted are listed in Appendix H. The research team's personal knowledge came into play in identifying vibrant centers in Albuquerque, New Mexico, Atlanta, Birmingham, Alabama, the New York area, North Carolina markets and Washington, D.C.

Suburban vibrant centers include redeveloped suburban office parks and retail centers. Area experts also identified another type of suburban vibrant center: downtown areas (town centers) in smaller towns and cities that have become part of larger metro areas. These core areas have managed to survive the competition from highway-oriented development. They are now thriving as a result of factors that include good urban design, solid building construction and reliable rail transit as well as consistent leadership and nearby affluence. Vibrant suburban centers served by rail transit include both suburban redevelopment and established town centers.

Suburban vibrant centers described in publications or nominated by area experts were qualified for inclusion in the analysis by using the following process:

- An Internet search was conducted to find a current description of the suburban vibrant center; most had URLs. This search qualified the place and identified a central address/ intersection and ZIP code.

- Google Earth was used to survey the area visually. Geographic features, street patterns, key landmarks and centrally located commercial establishments were noted. In some instances, Google Maps was used to take a visual tour of the area, to get a better sense of its walkability and design.

- The private Walk Score website, www.walkscore.com, was used to determine the Walk Score for each suburban vibrant center, using the center's address and ZIP code. Walk Scores range from zero to 100; each location's score is based on the location's distance from various destinations, including restaurants, bars, coffee shops, grocery stores, parks, schools, shopping, entertainment, banks, etc. If the distance from the location to the destination is within a quarter mile, the maximum score is assigned; if the destination is one mile or farther away, the location is given a zero score for that destination. The Walk Score is the unweighted sum of these destination-specific scores.

- Walk Scores for established town centers were expected to be higher than those for redeveloped suburban office parks and retail centers because they had many more years to reach critical mass. In the second analysis, the Walk Score threshold for suburban redevelopment was 75; the threshold for town centers was 85. Reston Town Center, with a Walk Score of 83, is slightly below that threshold, but was included because its town center, added in the 1990s, was much newer than the core areas of other town centers.

- A central intersection or address was identified for each vibrant center. The half-mile radius from this point formed the vibrant center's circular area. The data were compiled for all vibrant centers, which had to have at least 500,000 square feet of office space. Only one, Southlake Town Square in the Dallas suburbs, needed to be enlarged beyond the half-mile radius to capture more than 500,000 square feet of office space in the second analysis.

The suburban vibrant centers identified in this research are listed below by major city. The Walk Score is given (in parentheses) for each of the centers included in the second analysis, which examined 21 suburban redevelopment/infill development centers and 21 established town centers. Suburban vibrant centers are listed with their comparable suburban office park. Established town centers are listed with the surrounding area or submarket to which they were compared. The rule was that the submarket containing the core area should be at least twice as large as the town center to be used as the comp. Otherwise, additional proximate suburban space was added or used instead.

Several redevelopment/infill development centers could have been justifiably classified as established town centers. Because we consider them suburban relative to the larger market in which they were located, we treated them as suburban redevelopment/infill development and compared them to suburban office parks. CityPlace, a well-known redeveloped center that is defined as a suburban redevelopment even though it is quite near downtown West Palm Beach, is one example.

The process for selecting comps for suburban vibrant centers was rigorous:

- The market cluster and submarkets, including the suburban vibrant center, were identified, and the CoStar "Map" function was used to scan potential comps.

- Submarket properties were searched using "Existing Office over 100,000 SF" in the CoStar database to find suburban office parks. One prominent building in the office park was identified as its center, and that building's address was used to define the area.

- The "Radius" function was used to pull the data for the half-mile circle around that address. In most instances, other candidate office parks were compared to the selected comp to be sure its performance was not aberrant. *In fact, most comps performed better than the suburban average, thus providing strong competition for the vibrant centers.*

- In conducting the search for comps, five criteria were applied with the following priority order:

    1. The comp had to be in the vicinity of the vibrant center, with similar regional access for commuters.

    2. The comp had to represent typical, low-density, auto-oriented office space.

    3. The Walk Score for the comp had to be below 75 (preferably far lower).

    4. The identified properties had to be part of a defined office park or corridor.

    5. The comp had to be at least as large as its corresponding vibrant center.

First-tier Markets

The following 28 vibrant centers were identified in first-tier markets and analyzed in the suburban vibrant center-suburban office market comparisons. Each center name is followed by its Walk Score (in parentheses) and its suburban comp. In some cases, a Walk Score is provided for the comp as well.

Atlanta:

Downtown Decatur (88)	Northlake/Lavista and Stone Mountain (submarkets)
Buckhead Station (75)	Upper Buckhead (submarket)

Five candidate vibrant centers were evaluated. Atlantic Station and Edgewood District are too close to downtown to be considered suburban. The new urbanist development known as Glenwood, which has a Walk Score of 74, is just south of I-20 and too close to downtown. Decatur is an established town center; Buckhead Station represents suburban redevelopment. Both are served by rail transit.

The core area of Decatur was not compared to the rest of the Decatur submarket, because these office properties are part of urban Atlanta and within its loop highway, I-285 (Perimeter). The comp combined two suburban submarkets to capture properties around I-285 (Perimeter Center) to the east of Decatur: Northlake/Lavista and Stone Mountain.

Buckhead Station, with almost 10 million square feet of office space, is the largest of all of the suburban vibrant centers examined. Suburban office space in its vicinity was examined. These properties are in the Upper Buckhead or Lower Buckhead submarket. Instead of selecting one office park, we selected the remainder of the Upper Buckhead submarket as the best comp. It has about the same amount of office space, with a similar office inventory, and is more suburban in character than Lower Buckhead.

Bay Area:

Oakland: Walnut Creek core (92)	Camino Ramon Office Park (82)
San Francisco: San Mateo core (91)	Peninsula Office Park (60)
San Jose: Santana Row (78)	West Valley Corporate Center (58)

These three centers are better examples of suburban vibrant centers than Menlo Park, which has a lower Walk Score (62); downtown Palo Alto (87), which is university dominated; or Emeryville, which is close to downtown Oakland. Walnut Creek and San Mateo are also transit-oriented town centers. They are considered suburban, relative to Oakland and San Francisco, and compared to auto-oriented office parks.

Despite its relatively high Walk Score, Camino Ramon Office Park in San Ramon is a very good comp for Walnut Creek. It is larger and better performing than the next best alternative, Bishop Ranch Office Park in Concord.

Peninsula Office Park is an excellent comp for the San Mateo core. It is a typical suburban office campus just off Highway 92 in the Corridor/Highway 92 submarket. Its moderately high Walk Score is a result of its proximity to the College of San Mateo, which creates demand for convenience retail in the vicinity but cannot be easily accessed on foot.

Seven possible comps were examined to find one for Santana Row. Five had Walk Scores that were too high. West Valley Corporate Center (58) in Campbell, which has about the same amount of office space as Santana Row, was determined to be a better choice than Creekside Business Mall (71).

Boston:

Lowell core (100)	Lowell/Chelmsford (submarket)
Somerville core (91)	Somerville/Everett (submarket)
Waltham core (98)	Waltham/Waterford (submarket)

Newton, Brookline, and other suburban areas are not as strong as the three suburban vibrant centers selected, all of which were compared to the office space in their surrounding submarkets. The comps were calculated as the submarket minus the vibrant town center, which was the usual procedure for all established town centers.

Chicago:

Downtown Evanston (92)	Near North (submarket)
Highland Park (85)	Central North (submarket)
Oak Park core (92)	Oak Park Area (submarket)

Numerous other potential transit-served areas have lower Walk Scores or are too close to downtown Chicago. One new development, The Glen, is too small and has a Walk Score of 69. Market Square, one of the region's original mixed-use developments, has 365,000 square feet of office space and a Walk Score of only 74, surprisingly low for a transit-served center that is almost 100 years old.

The Near North and Oak Park Area submarkets have more than two times the RBA as their respective core areas. The remaining amount and location of space in these submarkets made them good comps. The entire Central North submarket was used as Highland Park's comp because the center represents only 2 percent of that submarket.

Dallas-Fort Worth:

Southlake Town Square (78)	Westlake Campus (28)

Two other vibrant centers were evaluated in this area. Addison Circle has a Walk Score of 62; Legacy Town Center in Plano's Walk Score is 60. Westlake is an excellent comp for Southlake. It is in the same submarket, Westlake/Grapevine, and, like Southlake, is adjacent to Southwest Parkway.

Houston:

The Woodlands Town Center (86)	Greenspoint Mall (48)

The Woodlands and Sugarland (77) are in the same part of the Houston market. The Woodlands was chosen because it is larger and has a higher Walk Score. Greenspoint was recommended as a good comp for The Woodlands. The area within a half-mile radius of the mall contains about 1.5 million square feet of RBA, about half that of the Woodlands.

Los Angeles:

Culver City (79)	Park Place (69)
Old Town Pasadena (92)	Pasadena/Arcadia/Monrovia (submarket)
South Coast Town Center (80)	Colton Lake Center (58)

Numerous candidate vibrant centers were evaluated in the LA region. Century City, Santa Monica and Westwood were excluded because they are unique. Others are too close to downtown LA or, in one instance, in downtown Long Beach. Both the Pasadena and Glendale core areas are vibrant, but Old Town Pasadena is the better choice. South Coast Town Center, located in Orange County, is both larger and has a higher Walk Score than Valencia (74). Culver City is sufficiently suburban in the context of the LA market to be compared to auto-oriented office locations in its vicinity.

Park Place in the Culver City submarket was selected as Culver City's comp. The area has twice as much RBA (2.3 million square feet) and an acceptable Walk Score. It was better than five potential comps that were examined. Old Town Pasadena, which accounts for 46 percent of its submarket, was compared to the rest of the surrounding submarket. Colton Lake, on the border of Santa Ana and Costa Mesa, off I-405, was the comp selected for South Coast Town Center.

New York City:

Morristown, New Jersey (94)	Park Avenue at Morris County (28)
Red Bank, New Jersey (92)	Middletown (09)
Stamford, Connecticut (98)	Stamford submarket
White Plains, New York (91)	East I-287 (submarket)

Seven potential vibrant centers were evaluated for the New York area. Hoboken, New Jersey, is far too urban and close to Manhattan; Greenwich, Connecticut, is too upscale and unique. Morristown meets the criteria and is a better alternative than New Brunswick, New Jersey, which would have had to be considered an established town center. Morristown and Red Bank are classified as suburban development and therefore compared to office parks or corridors. Stamford and White Plains are clearly much larger established city centers.

Morristown's comp, Park Avenue at Morris County, is 7.1 miles to the east with about the same regional access and size in RBA. It was superior to two alternatives that were assessed. Red Bank, in eastern Monmouth County, near the shore, is located in an area with few suburban office parks. Comparable office space was located along Route 35 near Middletown. The half-mile circle contains almost 1 million square feet of office space, and the location has a Walk Score of 9.

Downtown Stamford was compared to the rest of its submarket, which has almost 2.5 times more RBA. On the other hand, downtown White Plains includes 91 percent of its submarket, the White Plains CBD. The East I-287 submarket was selected as the best comp of the seven alternative submarkets that were evaluated.

Philadelphia:

Princeton, New Jersey (95)	Princeton North submarket

Three potential vibrant centers in Pennsylvania were nominated in the Philadelphia area. New Hope, with a Walk Score of 94, was the best choice, but its office market is very small. Ardmore is too small (338,000 square feet) and has a Walk Score of 85. Manayunk (83) is even smaller (233,000 square feet). Princeton, in the Northern New Jersey office market, originally was identified as a potential vibrant center in the New York area. In fact, it is 45 miles from Philadelphia and 51 miles from New York City. Therefore, it was considered to be a vibrant established town center in suburban Philadelphia. Princeton's town center was compared to the remainder of its submarket.

South Florida:

CityPlace, West Palm Beach (91)	Centrepark (46)

Office properties in Centrepark just west of I-95 below Clear Lake are relatively close to CityPlace, which is to the northeast. Although smaller than CityPlace, Centrepark is the best comp, given the alternatives.

Washington, D.C.:

Ballston, Arlington, Virginia (95)	Tysons Corner (submarket)
Frederick, Maryland (94)	Frederick (submarket)
Old Town Alexandria, Virginia (100)	I-395 Corridor (submarket)
Reston Town Center, Virginia (83)	Reston (submarket)
Shirlington, Virginia (86)	Park Center (66)
Silver Spring, Maryland (94)	Greenbelt, North Silver Spring/Rt. 29 and Kensington/Wheaton (submarket)

Washington, the third-largest office market after New York and LA, offered both challenges and opportunities in selecting vibrant centers and their comps. Chris Leinberger has found Washington to be the most walkable metro in the country and, with the Metrorail system, many vibrant centers could be identified in the region. Washington also has numerous highway-oriented office properties, which creates the opportunity to compare excellent examples of vibrant centers to low-density suburban office parks and corridors.

In this market, 16 potential vibrant centers were identified. Five (Clarendon, Court House, Crystal City and Rosslyn in Virginia and Friendship Heights, which straddles the District of Columbia/Maryland border) are too close to downtown Washington, D.C., to be treated as suburban. Ballston is far enough out on the Orange Line to qualify. Carlyle, which is adjacent to the King Street Metro stop in Alexandria, qualifies, but Old Town Alexandria is a stronger center in the same part of the market. Downtown Silver Spring and Bethesda are quite comparable; both are transit oriented and have the same Walk Score. Silver Spring is the better choice because it is less "unique" than Bethesda, which has a large concentration of National Institutes of Health (NIH) facilities.

Downtown Frederick qualifies with 1.6 million square feet of office space and a Walk Score of 94. Fairfax Corner in Virginia and Rockville and Washingtonian Center in Maryland have relatively low Walk Scores. Shirlington is a good example of new urbanist redevelopment and has a reasonable Walk Score of 86. Reston Town Center is included because of the prominence of Reston as a suburban-style new town that added a town center in the 1990s. Washington has more vibrant centers in the third analysis (six) than any other metro area.

Since five of these vibrant centers are established town centers, they should be compared to their surrounding area. However, that approach only made sense for the more suburban centers of Frederick and Reston. Two problems arose with the other three town centers. First, the amount of square footage in the core area of Ballston and Silver Spring accounted for almost all of the office space in each submarket. (Old Town Alexandria's core is 40 percent of its submarket.) The more serious problem is that areas adjacent to these three centers are more urban than suburban. To solve this problem, suburban auto-dependent office areas were paired with these three town centers.

The I-395 corridor submarket is the comp selected for Old Town Alexandria. This submarket is an excellent example of a traditional, single-use suburban office location and is in the same submarket cluster as Old Town. Silver Spring is compared to three additional submarkets to the northeast: Greenbelt, Kensington/Wheaton, and North Silver Spring/Route 29. Most office space in these submarkets is low density, auto dependent and highway oriented. Ballston is compared to the Tysons Corner submarket, which features over 26 million square feet of office space as well as the best known and largest suburban shopping mall in the D.C. area, Tysons Corner Center. Shirlington was compared to a nearby office park, Park Center. Both Shirlington and Park Center are within the I-395 submarket.

Second-tier Markets

The 35 vibrant centers in this tier were identified for the comparison to suburban areas and CBDs in the analysis described in Appendix F. Italics indicate the 11 vibrant centers that were selected for the analysis comparing suburban vibrant centers to suburban office parks. Each of those center's names is followed by its Walk Score (in parentheses) and its suburban comp. In some cases, a Walk Score is provided for the comp as well.

Baltimore:
Fells Point
Towson Town Center (95) Hunt Valley Business Park (63)

Four suburban office clusters in the vicinity of Towson were evaluated; none was large enough to serve as a comp nor in an established office park. Hunt Valley Business Park in the I-83 corridor is sufficiently large, in a suburban area north of Towson and outside the I-695 beltway.

Charlotte, North Carolina:
Baxter, South Carolina, central area
Light-rail polygon from Uptown to Atherton Mills
SouthPark (77) Ballantyne Corporate Park (63)

Ballantyne is a large suburban office park in the Highway 51 submarket southwest of center-city Charlotte near I-495 and west of SouthPark. The half-mile circle encompasses 2 million square feet, about the same amount of office space as SouthPark.

Cleveland:
Shaker Heights area

Denver:
Belmar (78) West Point (40)
Downtown Boulder (91) Boulder (submarket)

West Point, which is in Lakewood, Colorado, due south of Belmar, was a far better comparison than the five other potential comps. It had the lowest Walk Score and over twice as much office space as Belmar. Downtown Boulder was compared to the remainder of the Boulder submarket in which it is located.

Detroit:
Downtown Ann Arbor
Downtown Birmingham (95) Birmingham area and Bloomfield (submarkets)

Since the established town center is more than half of the Birmingham area submarket, the adjacent Bloomfield submarket was added to the comp for downtown Birmingham. Both are in the Bloomfield cluster, which includes four submarkets.

Kansas City, Kansas and Missouri:
College Boulevard
Country Club Plaza (86) Sprint World Headquarters (52)
Crown Center

Numerous candidate comps for Country Club Plaza were examined along major corridors in the area south of Country Club Plaza, which is in Kansas City's Midtown submarket. The Sprint World Headquarters was selected because it has a low Walk Score, typical suburban office construction and more RBA than Country Club Plaza. It is in the College Boulevard submarket.

Miami:
Dadeland Mall
Mizner Park (91) Boca Corporate Center (48)

Four potential comps were situated in the West and North Boca Raton submarkets. Mizner Park is close to the Atlantic Ocean in the East Boca submarket. The selected comp is located in the North Boca submarket and has 3 million square feet of office space.

Minneapolis/St. Paul:
St. Louis Park
University Avenue, St. Paul

Orlando, Florida:
Baldwin Park
Winter Park (91) Winter Park (submarket)

Winter Park's town center was compared to the rest of its submarket.

Phoenix:
Camelback Road
Scottsdale
Tempe

Pittsburgh:
Bakery Square
SouthSide Works

Sacramento, California:
Midtown and Zinfandel Boulevard along the Sacramento Regional Transit corridor

San Diego:
Chula Vista
Uptown Hillcrest
Westfield UTC (86) Mira Mesa Boulevard (62)

Westfield UTC is part of the North San Diego cluster and within the UTC submarket. It was compared to typical auto-oriented office properties just off Mira Mesa Boulevard. The statistics for this half-mile circle were similar to those for the entire Sorrento Mesa submarket.

Seattle:
Factoria
Redmond (94) Redmond (submarket)
University District

Redmond's town center was compared to the remainder of its submarket.

St. Louis:
Clayton (92) Creve Coeur/Hwy 67, I-270/Maryland Heights, I-270/Olive Boulevard
Edwardsville, Illinois

Downtown Clayton accounts for about 80 percent of the Clayton submarket. The best alternative was to combine three submarkets in its cluster that are in more suburban locations.

Tampa, Florida:
North Hyde Park

Third-tier Markets

The 29 vibrant centers in the third tier were compared to suburban areas and CBDs in the analysis presented in Appendix F. Italics indicate the three included in the second analysis comparing suburban vibrant centers to suburban office parks. Each of those center's names is followed by its Walk Score (in parentheses) and its suburban comp. In some cases, a Walk Score is provided for the comp as well.

Albuquerque, New Mexico:
Nob Hill near the University of New Mexico
Uptown at Louisiana Boulevard

Austin, Texas:
Mueller Redevelopment (77) Highway 290 E (66)
The Domain

The Mueller Redevelopment is north of the central area of Austin in the East submarket just east of I-35. The comp is north of Mueller centered on Hwy 290 E, and is also on the east side of I-35.

Birmingham, Alabama:
Homewood

Cincinnati/Dayton:
Covington, Kentucky
Glendale, Ohio

Columbus, Ohio:
Dublin
Grandview Avenue
Short North

Greensboro/Winston-Salem, North Carolina:
Friendly Center

Hartford, Connecticut:
Blue Back Square (95) Salmon Brook Office Park (63)

Salmon Brook Office Park is south of Hartford in Glastonbury, Connecticut. It is not close to Blue Back Square in West Hartford but represents one of the few examples of a recently developed suburban office park in the region.

Indianapolis:
Carmel

Jacksonville, Florida:
San Marcos neighborhood

Las Vegas:
Hughes Center

Milwaukee/Madison:
Third Ward area
Madison central area

Nashville, Tennessee:
Hillsboro Village (89) Burton Hills (51)

Burton Hills was selected as the best comp, based on advice from Nashville Chamber of Commerce staff. The area is southwest of I-440, farther out from the interstate than Hillsboro Village on the west side. Alternative comps had higher Walk Scores.

Portland, Oregon:
Beaverton and Gresham, near transit

Raleigh/Durham, North Carolina:
Cameron Village
North Hills
54 East and Meadowmont

Rochester, New York:
Combined villages of Brockport, Fairport and Pittsford

Salt Lake City:
Gateway Center
Sandy core
Sugarhouse area

Tulsa, Oklahoma:
Forest Orchard and Swan Lake neighborhoods

Appendix H
Vibrant Center Contacts

The following colleagues provided general advice: Julie Campoli, Reid Ewing, Robert Fishman, Larry Frank, Paul Kapp, Jonathan Levine, Gary Pivo, Daniel Rodriguez and Emily Talen.

Our key reference for the 30 largest markets was Christopher Leinberger's "Footloose and Fancy Free: A Field Survey of Walkable Urban Places in the Top 30 U.S. Metropolitan Areas," Brookings Institution, Dec. 4, 2007. Leinberger identified 157 walkable urban places, 78 of which are in suburban areas. We evaluated all 78. The notation "CL" in the list below indicates markets that include one or more of these places. Names in italics are individuals who helped identify comps for the vibrant centers in the second analysis.

First-tier Markets

New York City	Ken Bowers, Robert Fishman, CL
Los Angeles	Julie Campoli, CL
Washington	Mariela Alfonso, Margarita Foster, CL
Chicago	*Len Kutyla,* CL
Bay Area	Bill Lester, *Bonita McGarry*, Walter Rogan, Emily Talen, CL
Boston	Katherine Henderson, CL
Philadelphia	Walter Rogan, CL
Dallas-Fort Worth	ULI publications
Atlanta	CL, ULI publications
Houston	Lester King, Reid Ewing, CL

Second- and Third-tier Markets

Albuquerque, New Mexico	Rich Richardson, Emily Talen
Austin, Texas	Fritz Steiner
Baltimore	Marie Howland, Sidney Brower, CL
Birmingham, Alabama	Beth Malizia, Cathy Schloss Jones
Charlotte, North Carolina	Meg Nealon, Zack Gordon
Cincinnati/Dayton	Jay Chatterjee, Eric Thomas
Cleveland	Robert Simons
Columbus, Ohio	Jack Nasar, Julie Campoli, CL
Denver	Gene Bressler, Katherine Henderson, CL
Detroit	Margaret Dewar, Robert Fishman, CL
Greensboro/Winston-Salem, North Carolina	Don Jud, Paul Norby, Susan Schwartz
Hartford, Connecticut	David Blatt
Indianapolis	John Ottensman
Jacksonville, Florida	Bob Ansley
Kansas City, Missouri	*Kirk McClure*, CL
Las Vegas	Debra March

Miami	Chuck Bohl, ULI publications
Milwaukee/Madison	Sam White
Minneapolis/St. Paul	Peggy Reichert
Nashville, Tennessee	*Ben Gatlin*, Jenna Malizia
Orlando, Florida	Bob Ansley, CL
Phoenix	Liz Mack, CL
Pittsburgh	Tom Murphy, Paul Svoboda, CL
Portland, Oregon	Len Kutyla
Raleigh-Durham, North Carolina	John Hodges-Copple, Deb Malizia
Rochester, New York	Jason Haremza, Heidi Zimmer-Meyer
Sacramento, California	Aaron Nousaine
St. Louis	Sarah Coffin, CL
Salt Lake City	Reid Ewing
San Diego	Bill Anderson
Seattle	Anne Moudon, CL
Tampa, Florida	Bill Bishop, Bill Eshenbaugh
Tulsa, Oklahoma	James Wagner, Theron Warlick

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