

# 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 <sup>1</sup>	SUB <sup>2</sup>	SVC	SUB	SVC	SUB	SVC	SUB	SVC	SUB	SVC	SUB	SVC	SUB
<b>Average<sup>3</sup></b>	\$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%
<b>Standard e<sup>4</sup></b>	1.010		0.009		0.035		0.027		0.036		0.074		0.098	
<b>df<sup>5</sup></b>	56		58		40		49		54		39		53	
<b>cv 95%<sup>6</sup></b>	2.002		-2.002		2.021		2.010		2.005		-2.023		-2.006	
<b>cv 99%<sup>7</sup></b>	2.665		-2.665		2.704		2.680		2.670		-2.708		-2.672	
<b>t-statistic<sup>8</sup></b>	3.100		-3.590		0.769		2.642		1.372		-1.448		-1.908	

<sup>1</sup>Suburban vibrant center.

<sup>2</sup>Suburban area.

<sup>3</sup>The sum of the metric divided by an n of 33.

<sup>4</sup>Standard error of the estimate.

<sup>5</sup>Degrees of freedom.

<sup>6</sup>Critical value at the 95 percent level.

<sup>7</sup>Critical value at the 99 percent level.

<sup>8</sup>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 <sup>1</sup>	SVC <sup>2</sup>	CBD	SVC	CBD	SVC	CBD	SVC	CBD	SVC	CBD	SVC	CBD	SVC
<b>Average<sup>3</sup></b>	\$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%
<b>Standard e<sup>4</sup></b>	1.254		0.009		0.035		0.028		0.045		0.075		0.0102	
<b>df<sup>5</sup></b>	63		63		39		55		64		41		57	
<b>cv 95%<sup>6</sup></b>	1.998		1.998		-2.023		-2.004		1.998		2.020		2.002	
<b>cv 99%<sup>7</sup></b>	2.665		2.665		-2.708		-2.668		2.655		2.701		2.665	
<b>t-statistic<sup>8</sup></b>	0.495		4.442		-2.773		-1.009		0.222		3.035		2.001	

<sup>1</sup>Central business district/downtown.

<sup>2</sup>Suburban vibrant center.

<sup>3-8</sup>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 <sup>1</sup>	SUB <sup>2</sup>	CBD	SUB	CBD	SUB	CBD	SUB	CBD	SUB	CBD	SUB	CBD	SUB
<b>Average<sup>3</sup></b>	\$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%
<b>Standard e<sup>4</sup></b>	1.091		0.009		0.016		0.020		0.038		0.035		0.077	
<b>df<sup>5</sup></b>	53		62		64		62		51		62		63	
<b>cv 95%<sup>6</sup></b>	2.006		1.999		-1.998		1.999		2.008		1.999		1.998	
<b>cv 99%<sup>7</sup></b>	2.672		2.657		-2.655		2.657		2.676		2.657		2.656	
<b>t-statistic<sup>8</sup></b>	2.302		1.312		-4.395		2.105		1.558		3.448		0.209	

<sup>1</sup>Central business district/downtown.

<sup>2</sup>Suburban area.

<sup>3-8</sup>See Appendix F-1.