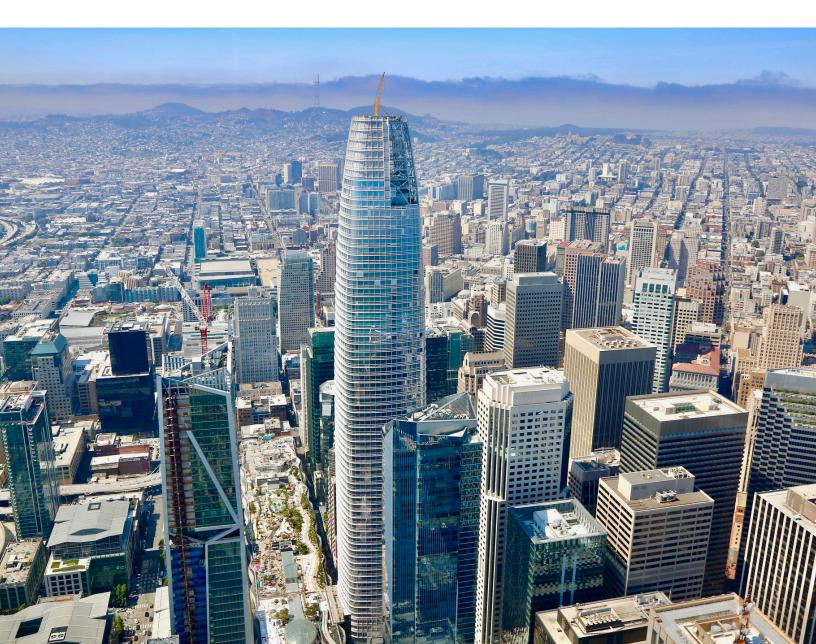
Yardi[®] Matrix

National Office Report

April 2019



U.S. Office Property: Asking Rents Up as Sales Activity Slows

- Office absorption remains robust, leading office asking rents to increase by 1.0% nationally during the first quarter, according to Yardi Matrix. The national vacancy rate remained steady at 13.7%.
- The increases were led by the San Francisco area and parts of New York City, and the changes in most metros were fairly minor. The highest increase in asking rents came from markets where new projects are pushing up the average listed price.
- Transaction activity was slow in the first quarter, with only \$13.3 billion of deals closed. That was down 37% from the \$21.1 billion closed in the first quarter of 2018, down 44% quarter-over-quarter, and the lowest quarterly total since the first quarter of 2013, when \$12.3 billion of deals closed. The number of closed deals also dropped below 500 for the first time in six years.
- Reasons for the slowdown in sales are not entirely clear. To some degree the first quarter is typically less active than the fourth quarter, when firms rush to close deals by year-end. But seasonality can't be the entire cause. One possibility is that the slowdown is a carryover from the capital markets volatility in the fourth quarter, when interest rates spiked and investors were unduly worried about the state of economic growth. The year also started during the government shutdown, which created some paralysis among investors.
- But there's no reason to think demand has fallen off a cliff. Investors are exhibiting more caution as they assume the economic cycle hits the late stages, and some foreign buyers have reduced their levels of interest, as acquisition yields remain extremely tight in primary markets. Yet demand is strong for properties with the right profile in the right place at the right price, and we expect office transactions to rebound in the near term, coming closer to the \$20.4 billion rolling four-quarter average.
- The rolling four-quarter average transaction price per square foot of \$243.70 is roughly the same quarter-over-quarter and year-over-year.



Lease Rate and Occupancy Trends: New Projects Boost Asking Rates in SF, Brooklyn

- Asking rents on vacant U.S. space averaged \$36.09 per square foot in March, up 1.0% from three months ago despite a flat vacancy rate. San Francisco topped the list based on both asking rate (\$66.04) and growth (12.6%), with Brooklyn's growing office market second in growth (11.2%) while third in rate (\$55.13).
- A big factor in San Francisco's listing rate growth was the start of pre-leasing at the new Oceanwide Center in the South of Market submarket. The two-building complex, which will be among the tallest buildings in the city,

will add nearly 1.5 million square feet of office space to the Financial District when it delivers in 2021. Space is currently listed at \$95 per square foot on a triple-net basis.

Listing rates increased more than 11% in Brooklyn over the past three months, as office supply and demand continues to grow outside of Manhattan. The 675,000-square foot Brooklyn Navy Yard—Dock 72 is expected to deliver this summer. WeWork has already leased about one-third of the building. The remainder is listed between \$55 and \$75 per square foot.

Market	Mar-19 Listing Rates	3-Month Change	Total Vacancy	Top Listing	Price Per Square Foot
National-Overall	\$36.09	1.0%	13.7%		
San Francisco	\$66.04	12.6%	9.0%	Sand Hill Commons	\$150.00
Brooklyn	\$55.13	11.2%	8.3%	Brooklyn Navy Yard–Dock 72	\$73.00
Bay Area	\$46.07	6.9%	15.0%	444 Castro	\$120.67
Houston	\$29.21	2.9%	21.3%	Texas Tower	\$59.90
Charlotte	\$27.74	2.5%	10.5%	RailYard, The	\$41.00
Philadelphia	\$29.45	2.5%	12.3%	Three Logan Square	\$56.57
Austin	\$37.99	1.4%	9.3%	Block 71	\$68.67
Washington DC	\$39.23	0.8%	14.7%	1000 F Street NW	\$83.08
Los Angeles	\$38.23	0.8%	13.3%	Constellation Place	\$87.71
Nashville	\$28.64	0.8%	10.9%	615 3rd Avenue	\$42.81
Phoenix	\$26.76	0.7%	16.8%	Hayden Ferry Lakeside I	\$46.50
Atlanta	\$25.97	0.5%	16.3%	Three Alliance Center	\$52.98
Boston	\$37.66	0.5%	9.9%	One Federal Street	\$76.00
Miami	\$37.92	-0.3%	13.3%	1450 Brickell	\$67.00
Dallas	\$27.45	-0.3%	18.9%	Saint Ann Court	\$56.71
Twin Cities	\$26.09	-0.5%	12.6%	Offices at MOA, The	\$53.43
Chicago	\$29.72	-0.5%	15.2%	110 North Wacker	\$60.78
Manhattan	\$74.60	-0.9%	8.4%	101 Park Avenue	\$200.00
San Diego	\$37.15	-1.0%	12.1%	Torrey Point	\$66.00
Denver	\$27.97	-1.0%	13.8%	Civica Cherry Creek	\$51.32
Portland	\$27.57	-1.1%	12.6%	Clay Pavilion	\$45.55
Tampa	\$25.06	-1.5%	10.8%	MetWest International-MetWest One	\$39.00
Orlando	\$21.16	-2.0%	13.3%	GuideWell Innovation Center	\$34.66
Seattle	\$37.01	-2.2%	8.8%	188 East Blaine Street	\$68.66
New Jersey	\$30.89	-2.2%	20.3%	Newport-111 Town Square Place	\$62.97

Listings by Metro

Source: Yardi Matrix. Data as of 4/16/19. Listing rates are full service or "full service equivalent" rates for spaces available as of report period.

Supply: Office Inventory Rising in Secondary Markets

- Nearly 9 million square feet of office space came online through February, with Class A space accounting for 7.9 million square feet of that total.
- We expect deliveries to pick up as the year progresses. Some 174.3 million square feet was under construction nationwide as of March. In addition, roughly 35 million square feet of owner-occupied space is currently under construction. Properties under construction represent a 2.9% growth of total inventory, while the total amount in the pipeline represents 9.0% of stock.
- Deliveries will likely exceed the 70.3 million square feet of non-owner-occupied space that came online in 2018. Office deliveries have gradually increased since bottoming at 30 million square feet in 2011, but growth remains far below the average of 107 million square feet that came online annually in the decade between 2000 and 2009.
- Manhattan (23 million square feet) and San Francisco (11 million) lead the nation in space under construction. Development, however, is increasingly coming to secondary markets. Smaller markets with expanding downtowns that are accommodating rapid employment growth are also seeing a rise in office stock.

Supply Pipeline (by asset class and location)

National Market	Under Construction	Under Construction % Stock	Plus Planned % Stock
A+/A	161,410,862	5.6%	5.9%
В	11,356,026	0.4%	0.4%
С	530,233	0.3%	0.3%
CBD	44,650,720	3.5%	7.2%
Urban	79,166,605	6.3%	15.7%
Suburban	50,294,592	1.5%	7.2%

Supply Pipeline (by metro)

Market	Under Construction	Under Construction % Stock	Plus Planned % Stock
National- Overall	174,331,917	2.9%	9.0%
Brooklyn	7,334,657	23.1%	36.9%
Nashville	4,384,803	11.2%	34.4%
San Francisco	11,798,216	8.3%	22.1%
Austin	5,549,821	8.2%	32.4%
Seattle	7,913,283	6.1%	13.5%
Charlotte	3,614,218	5.6%	13.0%
Manhattan	23,164,663	4.9%	6.6%
Boston	7,352,050	3.9%	14.6%
Miami	2,249,522	3.5%	18.5%
Orlando	1,759,543	3.4%	16.5%
Los Angeles	8,676,430	3.2%	7.5%
Atlanta	5,907,902	3.2%	17.6%
Bay Area	6,160,412	3.2%	12.4%
Phoenix	3,824,009	3.1%	13.0%
San Diego	2,701,353	3.1%	8.3%
Chicago	7,882,151	3.0%	10.4%
Washington DC	9,901,400	2.9%	8.9%
Denver	3,148,653	2.1%	7.9%
Twin Cities	1,616,655	1.8%	4.7%
Portland	1,022,317	1.8%	6.9%
Dallas	4,400,621	1.7%	14.2%
Tampa	814,283	1.4%	9.8%
Houston	2,945,858	1.3%	3.8%
New Jersey	1,088,492	0.7%	4.2%
Philadelphia	1,211,249	0.7%	3.2%

Source: Yardi Matrix. Data as of 4/16/19

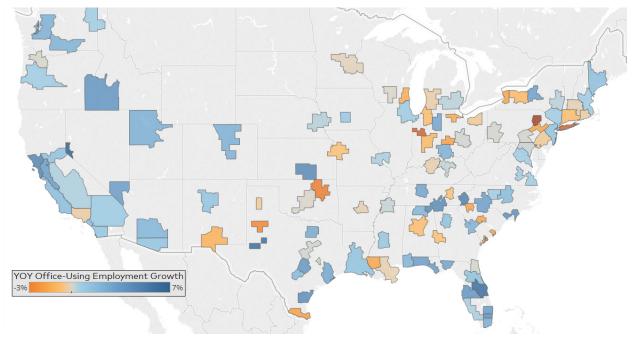
Source: Yardi Matrix. Data as of 4/16/19

Office-Using Employment: Bay Area, Southeast Remain Red Hot

- The nationwide growth of office-using employment continues to be robust, and was up 2.0% year-over-year through March. Growth is led by the professional and business services segment, accounting for 1.7% of the increase. Financial services represents the other 0.3% of growth.
- Information services, usually associated with technology, was essentially flat year-overyear. But there were significant increases in technology centers San Francisco (1.4%), the Bay Area and Seattle (1.3%) and Austin (0.6%).
- Growth in the San Francisco-Silicon Valley area and many Southeast metros remains red hot. Orlando has the highest growth in office-using employment at 6.1% year-over-year, almost entirely in professional and business services. Other top metros for growth include San Francisco (4.7%), Tampa (3.9%), the Bay Area (3.3%), Charlotte (3.1%) and Nashville (3.0%).

Growth by Sector 2019 Market February Orlando San Francisco Tampa Austin Bay Area Charlotte Nashville Houston Dallas Miami Seattle Denver Phoenix Atlanta San Diego Chicago Boston New York Washington DC + Total Office-Using Employment Growth Pittsburgh Portland Sector Twin Cities Finan Los Angeles Professional and Business Services Philadelphia -1% 0% 1% 2% 3% 4% 5% 6% YOY Office-Using Employment Growth

Sources: Bureau of Labor Statistics and Moody's Analytics



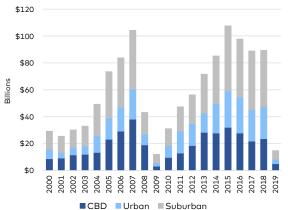
Office-Using Employment Growth

Sources: Bureau of Labor Statistics and Moody's Analytics. Due to BLS benchmarking, office-using employment data for the following markets reflect Dec-18 values: Boston, Bridgeport-Newhaven, Portland ME, and Worcester-Springfield

Transactions: Weak First Quarter Volume

- First-quarter transaction activity was weak, as \$13.3 billion of sales closed in the U.S. through March. The three-month average of \$4.4 billion is down slightly from the \$6.8 billion rolling average of a month ago.
- More than one-third of all first-quarter sales took place in primary markets San Francisco (\$939.7 million) and Manhattan (\$584.4 million). However, suburban markets totaled \$2.0 billion of office sales, compared to \$1.5 billion closed in central business districts (CBDs) and urban submarkets (\$991 million).

Sales by Location (price per square foot)



Source: Yardi Matrix; Data as of 4/16/19

Sales Activity

Market	Average Price per Square Foot	Average Monthly Volume in Millions (3-mo rolling avg)
National	\$242.34	\$4,442.15
San Francisco	\$939.67	\$430.55
Manhattan	\$584.43	\$607.43
Bay Area	\$508.48	\$448.52
Seattle	\$389.22	\$291.14
Brooklyn	\$353.27	\$23.13
Boston	\$333.17	\$98.05
San Diego	\$306.87	\$89.86
Charlotte	\$294.89	\$136.53
Los Angeles	\$286.45	\$301.46
Miami	\$283.62	\$84.15
Portland	\$271.27	\$71.43
Washington DC	\$261.28	\$447.02
Nashville	\$212.37	\$126.03
Chicago	\$209.12	\$86.53
Denver	\$204.91	\$189.91
Philadelphia	\$193.65	\$171.58
Austin	\$187.83	\$21.35
Phoenix	\$184.93	\$130.23
Dallas	\$178.91	\$79.93
New Jersey	\$177.38	\$119.03
Orlando	\$177.15	\$60.98
Twin Cities	\$161.74	\$147.04
Atlanta	\$125.62	\$102.79
Houston	\$123.15	\$34.88
Tampa	\$101.63	\$26.00

Source: Yardi Matrix. Data as of 4/16/19



Total Sales

Source: Yardi Matrix. Data as of 4/16/19.

Definitions

This report covers office buildings 50,000 square feet and above. Yardi® Matrix subscribers have access to 25,000-square-foot and larger buildings for a continually growing list of markets.

Yardi® Matrix collects listing rate and occupancy data using proprietary methods.

- Listing Rates—Listing Rates are full-service rates or "full-service equivalent" for spaces that were available as of the report period. Yardi[®] Matrix uses aggregated and anonymized expense data to create full-service equivalent rates from triple-net and modified gross listings. Expense data is available to Yardi[®] Matrix subscribers.
- *Vacancy*—The total square feet vacant in a market, including subleases, divided by the total square feet of office space in that market. Owner-occupied buildings are not included in vacancy calculations.

A and A+/Trophy buildings have been combined for reporting purposes.

Stage of the supply pipeline:

- Planned—Buildings that are currently in the process of acquiring zoning approval and permits but have not yet begun construction.
- Under Construction—Buildings for which construction and excavation has begun.

Office-Using Employment is defined by the Bureau of Labor Statistics as including the sectors Information, Financial Activities, and Professional and Business Services. Employment numbers are representative of the Metropolitan Statistical Area and do not necessarily align exactly with Yardi[®] Matrix market boundaries.

Sales volume and price-per-square-foot calculations do not always include portfolio transactions or those with unpublished dollar values.

To learn more about Yardi® Matrix and subscribing, please visit www.yardimatrix.com or call Ron Brock, Jr., at 480-663-1149 x2404.

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