Yardi Matrix

National Office Report

December 2021

Flex Space and the Future of Office

- The last two years have been tumultuous for the office sector as millions of workers have remained remote and businesses have sought to reevaluate office footprints. While there has been much speculation as to whether remote work will become permanent, firms still need physical space for training, collaboration and culture building, and flex space is emerging as a solution.

- In the near term, flex space can bridge the gap between an uncertain future and the needs of the present. In the long term, shared space will play a vital role in providing the flexibility that is crucial to attracting and retaining employees in a tight labor market. Flex space allows firms to offer their workers offices and amenities while keeping real estate costs lower than a traditional lease. Earlier this year, a CBRE survey of 77 global companies revealed 86% will include flex space as part of their real estate strategies going forward. Only 5.6% of office buildings have a flex space within their properties, according to Yardi Matrix, and most of those buildings are highly clustered in the largest markets. More than 30% of buildings with flex space are in just five markets—Manhattan, Los Angeles, Washington, D.C., Dallas and Boston.

- Going forward, it is less likely that flex space operators will use the revenue model common before COVID-19, where operators signed leases for high-quality space in city centers and then rented the space out to their members. We expect franchising and management agreements with revenue sharing to become more common. In management agreements, landlords will be responsible for the cost of fit-outs but are able to receive a larger share of the revenue from the operators. These agreements also reduce the risk of leasing to a single flex space tenant and align incentives between the operators and landlords.

- WeWork, which had a successful(-0.3%) IPO this year through an SPAC two years after its failed IPO led to turmoil at the company, has been the most aggressive at exploring new revenue models. It recently entered into a partnership with Saks Fifth Avenue to convert some retail space into flex space. WeWork has also received a $150 million investment from Cushman & Wakefield with an agreement to combine its hospitality and technology services with Cushman's asset and facilities management services. Other real estate service firms are also taking an interest in operating shared spaces. This year, CBRE acquired a 35% stake in Industrious and Newmark purchased Knotel out of bankruptcy.

Listing Rates and Vacancy: Vacancy Rates Plateau in Second Half of Year

- The average national full-service equivalent listing rate was $38.62 per square foot, unchanged from the previous month and up 1.2% year-over-year.

- The national vacancy rate was 15.2%, up 130 basis points (bps) over the last 12 months but down 40 bps in the last six.

- Most markets have followed a similar trend, with vacancy rates spiking year-over-year but moderating over the last six months. Austin has seen vacancy rates increase 600 bps since last November but only 60 bps since May. The increase in vacancy is not solely due to the pandemic but also to supply growth in the market. Austin has had 6.7 million square feet of office space delivered since the start of 2020, representing 7.7% of stock. A similar story has played out in Seattle, where vacancy rates have increased 630 bps over the year but only 70 bps in the last six months. The impact of new supply—4.0% of stock delivered in the last two years—is less than is the case with Austin, but is still significant.

Listings by Metro

Market	Oct-21 Listing Rate	12-Month Change	Total Vacancy	12-Month Change	Top Listing	Price Per Square Foot
National	$38.62	1.2%	15.2%	140 bps		
Los Angeles	$41.62	8.1%	12.7%	-30 bps	100 Wilshire	$108.00
Bay Area	$55.79	6.2%	16.0%	220 bps	245 Lytton Avenue	$133.79
Tampa	$29.70	6.2%	16.0%	450 bps	Water Street Tampa - Thousand & One	$53.00
Miami	$43.43	5.8%	12.5%	-120 bps	701 Brickell	$88.00
Denver	$30.25	5.5%	15.7%	160 bps	1144 Fifteenth Street	$54.66
Austin	$43.70	5.3%	17.3%	600 bps	Indeed Tower	$74.67
Boston	$34.81	3.9%	10.6%	0 bps	75 State Street	$68.50
Philadelphia	$29.60	3.6%	13.3%	60 bps	Two Liberty Place	$53.50
Washington DC	$42.01	3.6%	15.9%	110 bps	Executive Tower	$83.79
Orlando	$22.13	3.5%	16.4%	200 bps	GuideWell Innovation Center	$34.66
Nashville	$30.90	3.5%	17.9%	290 bps	The Pinnacle at Symphony Place	$44.00
Phoenix	$28.01	3.2%	14.7%	-250 bps	100 Mill	$48.50
New Jersey	$33.14	2.9%	16.9%	10 bps	Liberty Innovation Center	$88.29
San Diego	$38.90	2.4%	13.8%	0 bps	2100 Kettner	$69.00
Dallas	$28.66	1.6%	17.6%	-70 bps	Link at Uptown, The	$54.96
Portland	$29.97	1.0%	13.6%	120 bps	Park Avenue West	$48.69
Atlanta	$27.64	0.8%	20.7%	300 bps	300 Colony Square	$50.00
Charlotte	$29.00	0.5%	14.3%	460 bps	300 South Tryon	$42.00
Chicago	$28.12	-1.1%	19.0%	370 bps	Five One Five North State	$66.02
Houston	$30.18	-1.2%	25.0%	300 bps	Texas Tower	$58.40
Twin Cities	$26.80	-1.3%	14.2%	290 bps	Lake Calhoun Center	$42.93
San Francisco	$69.18	-1.6%	14.8%	410 bps	Sand Hill Collection - The Quad	$141.17
Manhattan	$83.52	-2.6%	11.6%	170 bps	550 Madison Avenue	$210.00
Seattle	$35.79	-3.0%	16.5%	630 bps	City Center Bellevue	$65.50
Brooklyn	$48.08	-4.9%	16.4%	310 bps	Brooklyn Navy Yard - Dock 72	$64.00

Source: Yardi Matrix. Data as of November 2021. Listing rates are full service or "full service equivalent" rates for spaces available as of report period. National listing rate is an average of the top 50 markets.

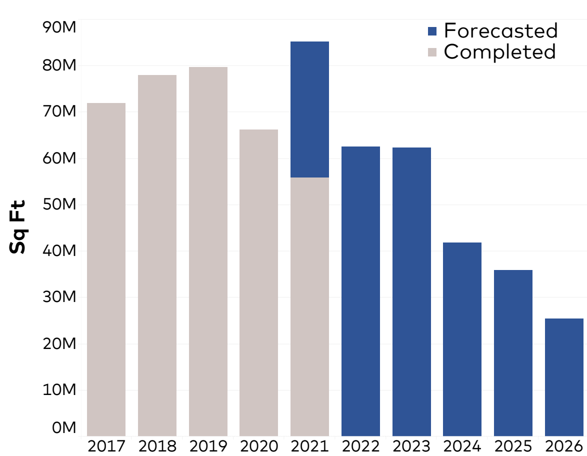
Supply:
Charlotte Pipeline Shrinks in 2021

- Nationally, 152.8 million square feet of new office space is under construction. Construction on new buildings is starting at a slower pace than completions and deliveries to market. As a result, the total size of the national under-construction pipeline has been shrinking; it is currently 12 million square feet smaller than it was in January.

- Following 86.0 million square feet of new office starts in 2019, there were 58.9 million square feet started last year and 48.2 million started year-to-date in 2021.

- Emblematic of this trend is Charlotte, which had the nation's largest under-construction pipeline as a percentage of existing stock at the beginning of the year at 11.2%. More than 4 million square feet across 16 properties have been delivered in the city this year, but less than 500,000 square feet of new office space have been started, mostly consisting of smaller suburban properties and expansions. The planned portion of Charlotte's pipeline is still large, representing 7% of stock, suggesting that developers still view the city as an attractive market while they wait to see what post-pandemic office utilization may look like.

National New Supply Forecast



Source: Yardi Matrix. Data as of November 2021

Supply Pipeline (by metro)

Market	Under Construction	Under Construction % Stock	Plus Planned % Stock
National	152,822,089	2.3%	5.8%
Austin	9,509,918	10.9%	26.8%
Nashville	4,621,835	8.1%	15.4%
Boston	12,570,669	5.1%	9.8%
Miami	3,485,062	5.0%	9.6%
Seattle	6,880,203	4.8%	11.1%
Brooklyn	1,798,733	4.4%	8.3%
Manhattan	19,364,566	4.0%	5.4%
San Francisco	5,968,381	3.8%	6.3%
San Diego	3,488,076	3.6%	6.9%
Portland	2,054,285	3.4%	6.7%
Charlotte	2,553,426	3.4%	10.4%
Houston	5,490,339	2.3%	3.6%
Bay Area	4,700,120	2.3%	12.8%
Tampa	1,461,660	2.2%	5.1%
Los Angeles	6,439,083	2.2%	4.0%
Atlanta	4,012,416	2.0%	4.2%
Dallas	5,051,490	1.8%	7.5%
Orlando	991,920	1.8%	6.9%
Washington DC	6,686,984	1.8%	5.7%
Phoenix	2,247,429	1.7%	8.6%
Philadelphia	2,659,103	1.5%	4.5%
Chicago	4,598,530	1.4%	6.3%
Twin Cities	689,181	0.6%	2.4%
Denver	889,288	0.6%	3.4%
New Jersey	994,635	0.5%	2.7%

Source: Yardi Matrix. Data as of November 2021

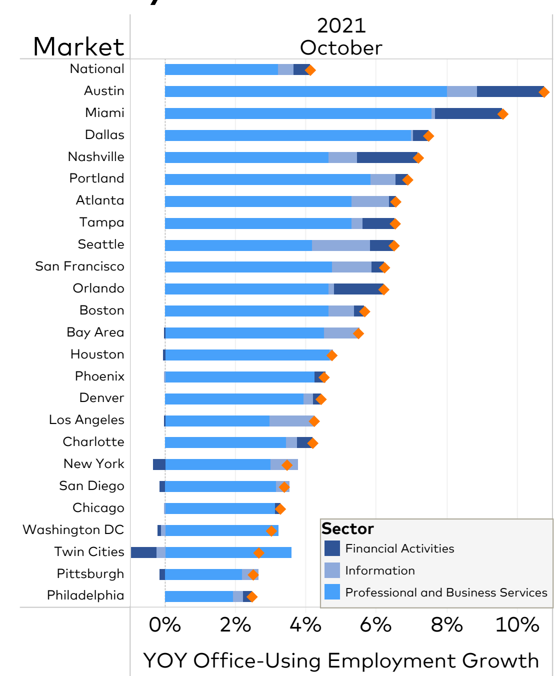
Office-Using Employment: Recovery Inconsistent Across Markets and Sectors

- Office-using sectors of the labor market added 101,000 jobs in November, a 4.1% increase year-over-year.

- On a national level, office-using employment is nearing a full recovery. As of November, there were only 162,000 fewer office jobs than February of 2020. At the trough of the downturn last year, office-using sectors had lost nearly three million jobs. Most of the slack in the recovery has been in the information sector, which has 123,000 fewer jobs (-4.2%) than it did before the pandemic. The professional and business services sector—by far the largest sector of the three that are defined as office-using—is only 69,000 jobs (-0.3%) below February 2020, and financial activities has 30,000 more jobs (0.3%).

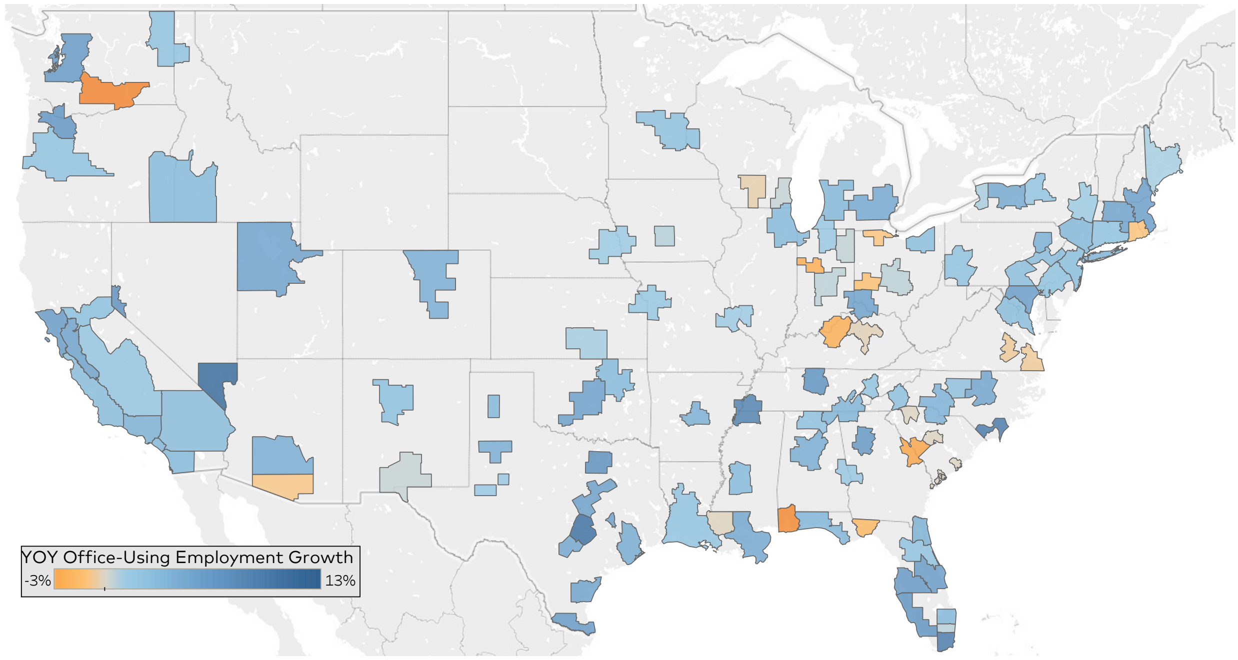
- Metro employment for October, which trails the national release, shows 37 of the 120 markets covered by Yardi Matrix, including 19 of the 50 largest, had more office-using jobs in November 2021 than in February 2020.

Growth by Sector



Sources: Bureau of Labor Statistics and Moody's Analytics

Office-Using Employment Growth



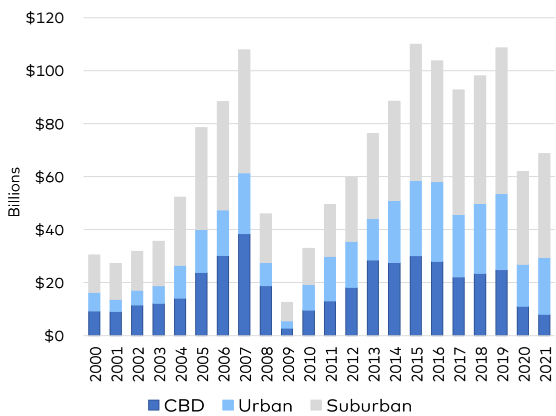
Sources: Bureau of Labor Statistics and Moody's Analytics

Transactions:
Average Sale Price Hits All-Time High

- In all, $68.8 billion of office transactions were completed through November, according to Yardi Matrix. While this is far off from the prepandemic trend line, 2021 sales volume is 11% higher than last year.

- Despite the economic downturn and the uncertainty surrounding the future of office, the average sale price of an office building has not fallen during the crisis and has surprisingly hit an all-time high this year at $291 per square foot. This has not been driven by a shift in the mix of assets that are sold, as the split across location and asset rating classes remains roughly the same as it was prepandemic.

Sales by Location



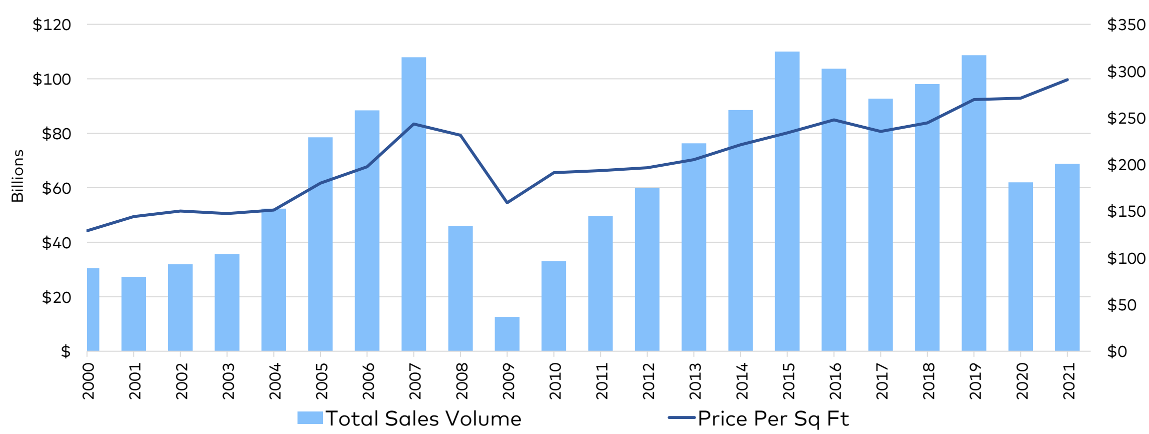
Source: Yardi Matrix; Data as of November 2021

Sales Activity

Market	YTD Sales Price PSF	YTD Sales (Mil, as of 11/30)
National	$291	$68,644
Bay Area	$523	$7,754
Manhattan	$1,267	$5,364
Boston	$409	$4,954
Seattle	$558	$4,291
San Francisco	$666	$3,818
Washington DC	$286	$2,755
Los Angeles	$412	$2,704
Atlanta	$220	$2,655
Denver	$239	$2,586
Dallas	$237	$2,488
Austin	$441	$1,943
Phoenix	$220	$1,864
New Jersey	$159	$1,734
Miami	$300	$1,661
San Diego	$441	$1,610
Charlotte	$322	$1,277
Philadelphia	$176	$1,199
Chicago	$184	$1,149
Houston	$174	$986
Twin Cities	$156	$711
Nashville	$259	$695
Tampa	$187	$639
Orlando	$157	$357
Brooklyn	$661	$189
Portland	$235	$182

Source: Yardi Matrix. Data as of November 2021

Total Sales



Source: Yardi Matrix. Data as of November 2021

Definitions

This report covers office buildings 25,000 square feet and above. Yardi Matrix subscribers have access to more than 10,500,000 property records and 325,000 listings 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. National average listing rate is for the top 50 markets covered by Yardi Matrix.
- *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.

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