Yardi® Matrix

National Office Report

April 2022

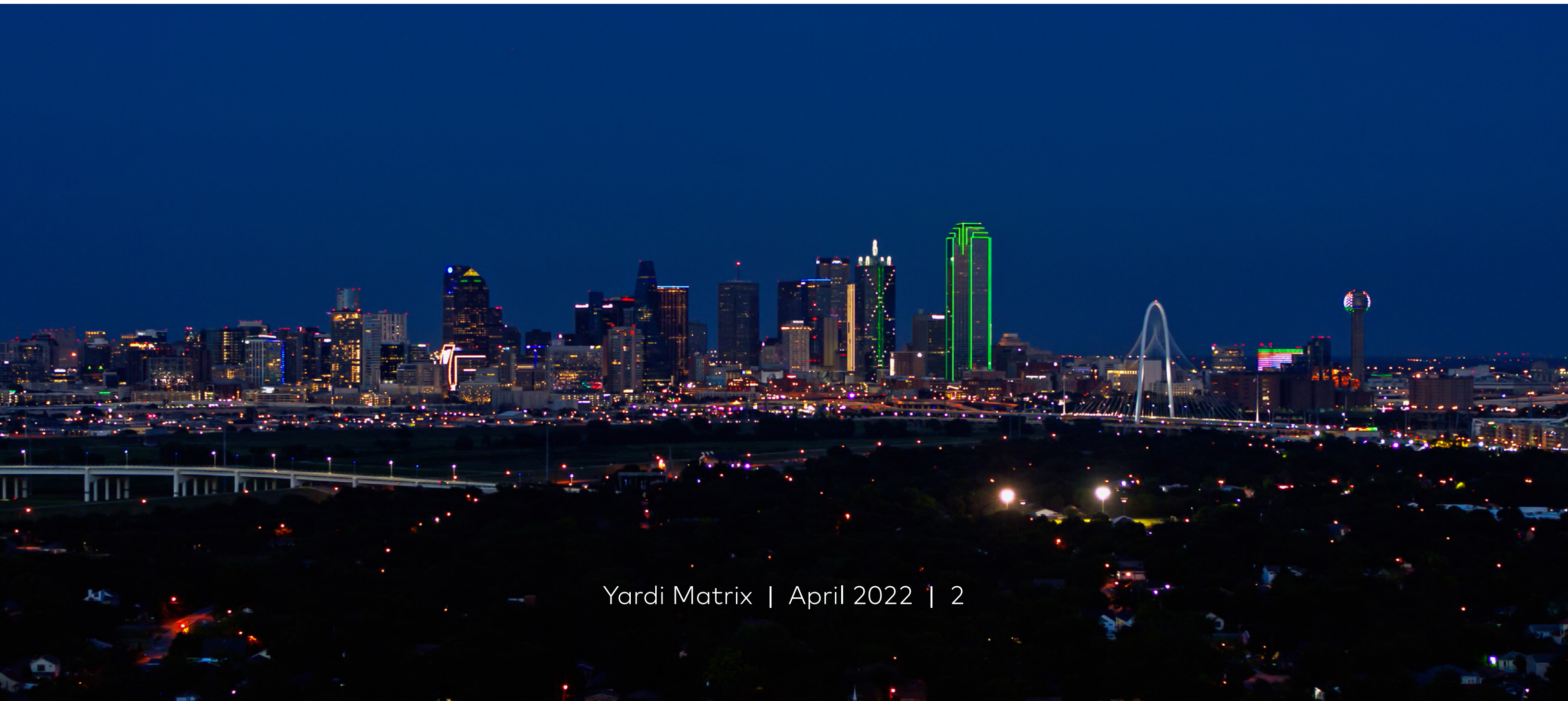
Office Pipeline Flows Amid Changes

- While the shift to remote and hybrid work has resulted in a smaller pipeline of new office supply, many developers believe that the right project in the right location still makes sense. New office starts have slowed considerably during the pandemic—from 86.4 million square feet in 2019 to 58.4 million in 2020 and 63.1 million in 2021—but have not completely cratered, as many were predicting two years ago.

- Domestic migration to Sun Belt markets has led to new development, despite uncertainty about the future of the office. In 2021, Austin (5.3 million square feet) and Dallas (4.5 million) led the country in new office starts while both outpaced all other markets in office-using employment growth. Dallas added more office jobs (107,000) than any other market over the last 12 months, while Austin had the highest office-using employment growth (14%) over the same period. Both markets routinely rank at the top of Kastle Systems' weekly occupancy rankings. Austin's robust population and employment growth gives developers more confidence about breaking ground on office projects, even after multiple new towers, including the 36-story Indeed Tower, were delivered last year.

- Markets with a heavy concentration of jobs in the life sciences also saw new development break ground throughout the pandemic. Besides Austin and Dallas, four of the remaining seven top markets for construction starts in 2021 were all life sciences hubs. The Bay Area (3.8 million square feet of starts) and San Francisco (3.1 million) have been top markets, despite domestic out-migration and languid employment growth. With their life sciences clusters, the Brisbane and South San Francisco submarkets account for nearly half of all stock under construction. Kilroy Oyster Point started construction on the second phase of its life science campus in South San Francisco last summer after fully leasing phase one. Raleigh-Durham (2.8 million) and Boston (2.7 million) are two other life sciences hubs that saw high levels of office starts in 2021. According to Yardi Matrix, more than half of all properties under construction in Boston include at least some life science capacity.

- More than 93% of all office properties under construction are rated Class A or A+, so new office development is counting on a continued flight to high-quality spaces as a way for companies to retain and recruit workers. If this trend continues, then many owners of Class B and Class C buildings may feel the squeeze and look for conversion opportunities. We expect that those exploring conversions will be looking at life science, multifamily and, to a lesser extent, industrial.



Listing Rates and Vacancy: San Francisco's Pandemic Challenges Linger

- The average full-service equivalent listing rate for office space was $38.65 per square foot in March, an increase of three cents over February but a 2.6% decline from the same period last year.

- The national vacancy rate was 15.9%, up 20 basis points (bps) from the previous month and 30 bps year-over-year.

- Vacancy has skyrocketed in many markets since the start of the pandemic, but especially in gateway markets. In San Francisco, the vacancy rate has increased from 7.3% before the pandemic shutdowns to 17.3% in March of this year. The market's sublease vacancy rate has also shot up over this period from 1.4% to 5.7%. We expect life sciences to drive leasing activity in submarkets outside the city as the sector expands and most of its jobs cannot be performed remotely. Owners struggling to fill space in San Francisco may explore conversions, but not every building is suited for life science use because of the sector's specialized requirements.

Listings by Metro

Market	Mar-22 Listing Rate	12-Month Change	Total Vacancy	12-Month Change	Top Listing	Price Per Square Foot
National	$38.65	-2.6%	15.9%	30 bps		
Boston	$38.96	16.4%	10.5%	-150 bps	Kendall Square at MIT–314 Main Street	$121.60
Miami	$47.38	12.2%	12.8%	-280 bps	830 Brickell	$150.00
Charlotte	$31.99	10.7%	14.7%	50 bps	One Wells Fargo Center	$42.00
Atlanta	$29.30	5.9%	21.7%	210 bps	300 Colony Square	$52.00
Brooklyn	$53.04	4.8%	17.0%	120 bps	Empire Stores	$68.00
Denver	$30.03	4.5%	17.2%	120 bps	William Building, The	$59.67
Orlando	$22.10	3.8%	15.8%	90 bps	429 @ Crown Point–Building 529, The	$35.00
Los Angeles	$41.49	3.0%	13.7%	-10 bps	100 Wilshire	$108.00
Houston	$30.33	2.5%	24.9%	90 bps	Texas Tower	$58.40
Austin	$43.30	2.2%	15.9%	-10 bps	Indeed Tower	$76.67
Dallas	$28.70	1.2%	17.3%	-180 bps	Harwood No.10	$60.46
Bay Area	$56.89	1.1%	15.1%	-420 bps	260 Homer Ave & 819 Ramona St	$138.12
Seattle	$35.71	0.7%	14.9%	100 bps	City Center Bellevue	$66.50
Chicago	$27.34	0.1%	20.3%	290 bps	300 North LaSalle Drive	$59.46
Philadelphia	$29.25	-0.3%	13.3%	-10 bps	Two Liberty Place	$53.50
San Diego	$40.40	-0.4%	13.6%	-40 bps	2100 Kettner	$69.00
Washington DC	$41.61	-1.4%	16.8%	100 bps	One Freedom Plaza	$81.83
New Jersey	$32.51	-1.8%	17.6%	-100 bps	10 Exchange Place	$55.30
Nashville	$30.52	-2.0%	18.8%	-20 bps	Three Thirty Three	$43.88
Tampa	$27.70	-2.3%	16.0%	90 bps	Water Street Tampa–Thousand & One	$58.00
Phoenix	$26.73	-3.6%	15.1%	-340 bps	100 Mill	$52.00
Twin Cities	$25.34	-4.5%	14.5%	-150 bps	Lake Calhoun Center	$42.93
Portland	$27.99	-7.2%	12.3%	-270 bps	Park Avenue West	$48.69
San Francisco	$63.04	-9.5%	17.3%	380 bps	Offices at Springline South, The	$161.26
Manhattan	$74.20	-13.5%	14.4%	370 bps	550 Madison Avenue	$210.00

Source: Yardi Matrix. Data as of March 2022. 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.

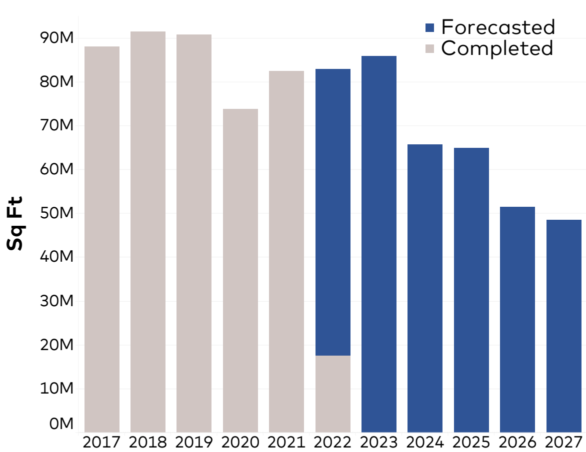
Supply:
Pipelines Cool in Denver and Phoenix

- Nationally, 144.7 million square feet of office space is currently under construction. Half of that space is in urban submarkets, defined as areas that are within a city's center but outside the Central Business District.

- While development in some markets has been steady throughout the pandemic, other markets that were hot in the years before the pandemic have started to cool significantly.

- Between 2015 and 2021, Denver delivered 16.1 million square feet of new office space, representing 8.5% of the market's stock. However, as projects have come online, there has not been replenishment in the Mile High City's pipeline, which currently has only 1.3 million square feet under construction. For its part, Phoenix added 16.9 million square feet from 2015 through 2021, representing 12.8% of stock. But the metro now finds itself in a similar position to Denver, with only 1.0 million square feet under construction. Some slowdown in these markets was likely, due to the large amount of new supply being delivered for an extended period, but COVID-19 has pumped the brakes even further. That said, however, Phoenix's pipeline of product in the planning stage (9.6 million square feet) is more than twice as large as Denver's (4.4 million).

National New Supply Forecast



Source: Yardi Matrix. Data as of March 2022
Data in this chart includes owner-occupied properties

Supply Pipeline (by metro)

Market	Under Construction	Under Construction % Stock	Plus Planned % Stock
National	144,729,367	2.2%	5.9%
Austin	10,090,665	11.5%	25.3%
Nashville	4,622,835	8.0%	15.4%
Miami	5,423,850	7.0%	12.7%
Boston	11,984,947	4.9%	11.1%
San Diego	3,917,084	4.1%	8.4%
Seattle	5,929,207	4.1%	10.7%
Manhattan	19,164,390	4.0%	5.5%
Portland	2,320,285	3.9%	7.3%
Charlotte	2,803,664	3.7%	11.2%
San Francisco	5,702,455	3.6%	6.2%
Bay Area	7,082,934	3.5%	13.9%
Brooklyn	1,232,617	3.0%	7.8%
Tampa	1,596,660	2.4%	5.2%
Orlando	1,316,337	2.3%	5.6%
Dallas	5,469,122	2.0%	6.8%
Houston	4,560,287	1.9%	2.8%
Atlanta	3,649,728	1.8%	11.2%
Philadelphia	2,664,103	1.5%	4.6%
Washington DC	4,342,829	1.1%	5.3%
Los Angeles	3,187,328	1.1%	3.7%
Chicago	2,741,461	0.9%	5.7%
Denver	1,271,606	0.8%	3.5%
Phoenix	1,035,724	0.8%	8.0%
New Jersey	1,355,605	0.7%	2.2%
Twin Cities	152,650	0.1%	1.9%

Source: Yardi Matrix. Data as of March 2022

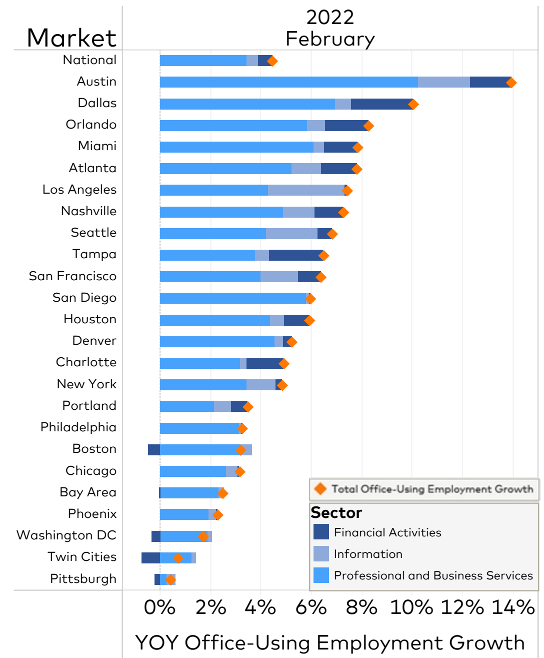
Office-Using Employment: Two in Texas Outpace the Nation

- Office-using sectors of the labor market added 134,000 jobs in March, a 4.9% year-over-year increase. Office jobs accounted for 31% of all jobs added in the month.

- Metro employment data for February, which trails the national release, continues to show that the recovery is uneven across the nation. While some markets have long since surpassed February 2020 levels of office employment, 17 of the top 50 markets have yet to fully recover.

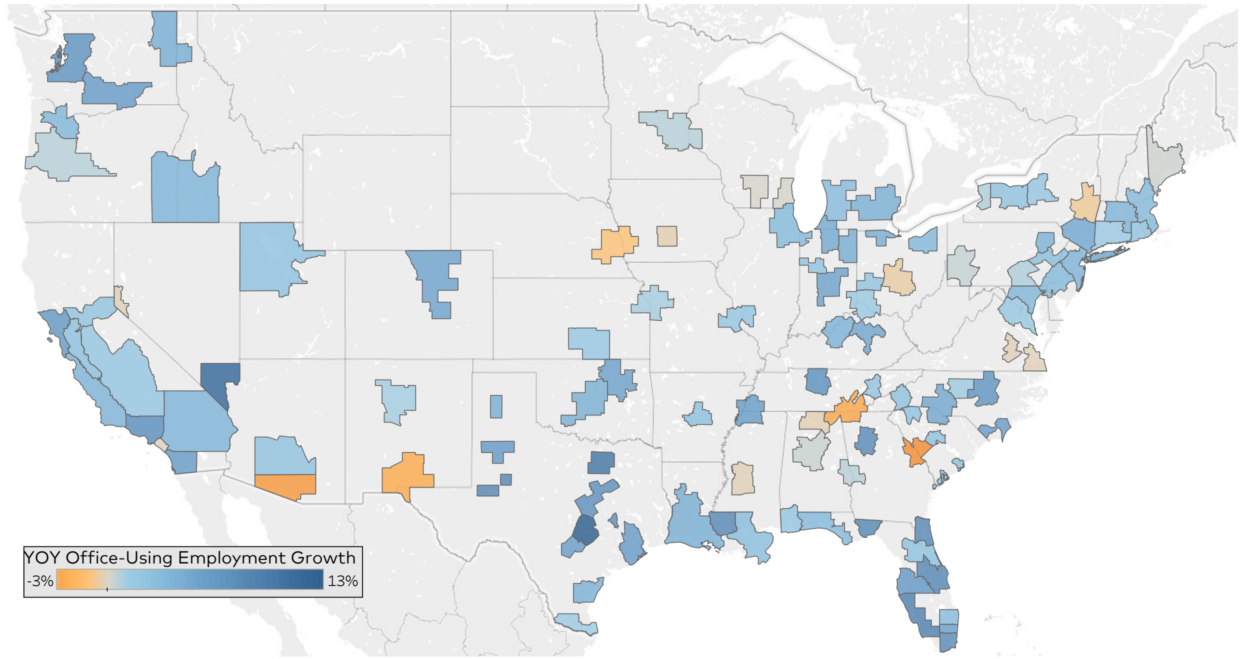
- Two Texas markets have distanced themselves from the rest of the country in adding office jobs. Dallas leads the U.S. in absolute gains since February 2020, with 104,000 more workers in the three office-using sectors than before the pandemic. That represents a 9.7% increase, despite the job losses in the spring of 2020. Dallas' growth rate over the past two years is second only to Austin's astounding 17.6%. The Texas capital has 56,000 more office jobs than it did in February 2020.

Growth by Sector



Sources: Bureau of Labor Statistics and Moody's Analytics

Office-Using Employment Growth

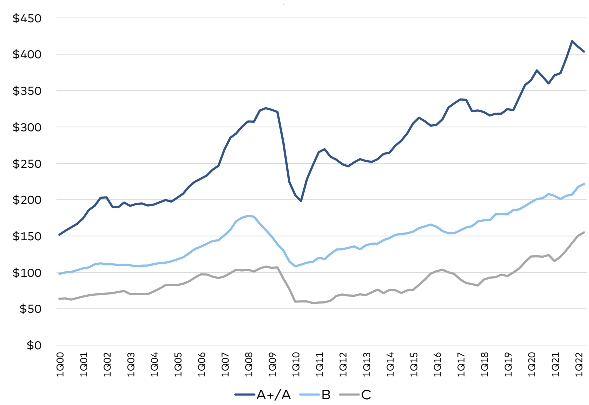


Sources: Bureau of Labor Statistics and Moody's Analytics

Transactions:
L.A. Deal Volume Stays High

- Nationally, Yardi Matrix logged $18.9 billion in transactions during the first quarter of 2022.
- With nearly $1 billion in office transactions for the quarter, Los Angeles is generating a substantial volume of sales. While L.A.'s traditional office-using employment is lagging, the entertainment industry continues to drive investment in some submarkets. The market's largest deal so far this year is The Georgetown Cos.' $93 million acquisition of 1350 North Western Ave., which is fully leased to Netflix and sits a few blocks from the streaming giant's Hollywood headquarters.

Asset Class (price per sq. ft.)



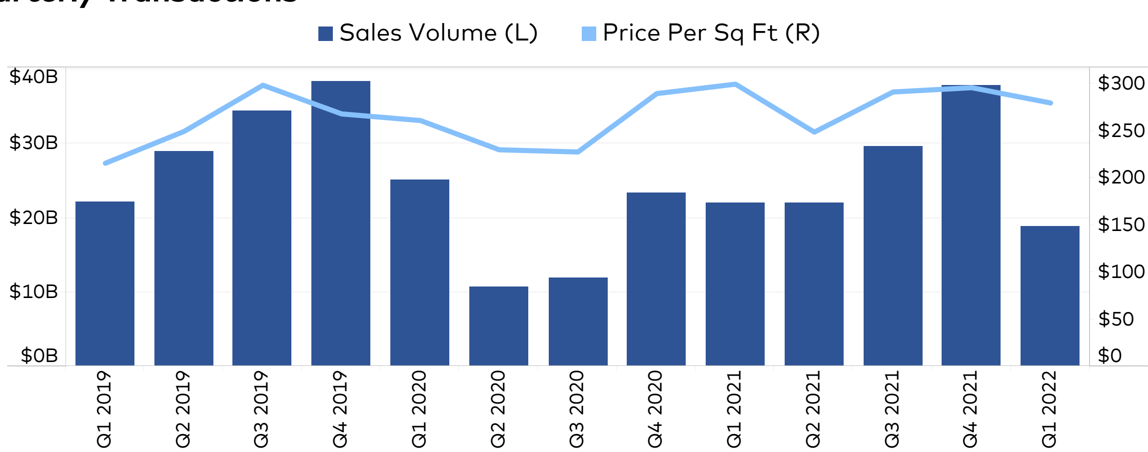
Source: Yardi Matrix; 12-month moving average.
Does not include unpublished and portfolio transactions.

Sales Activity

Market	YTD Sales Price PSF	YTD Sales (Mil, as of 3/31)
National	$280	$18,866
Seattle	$596	$1,150
Dallas	$201	$1,142
New Jersey	$324	$1,103
Houston	$183	$1,099
Bay Area	$501	$1,023
Manhattan	$921	$1,022
Los Angeles	$387	$998
Phoenix	$339	$875
Atlanta	$324	$844
Chicago	$142	$727
San Diego	$535	$676
Denver	$319	$636
Washington DC	$309	$568
San Francisco	$776	$515
Boston	$234	$507
Nashville	$309	$485
Twin Cities	$173	$245
Orlando	$229	$227
Miami	$330	$209
Brooklyn	$571	$200
Austin	$316	$144
Philadelphia	$164	$102
Charlotte	$295	$99
Portland	$192	$51
Tampa	$125	$35

Source: Yardi Matrix. Data as of March 2022. Sales data for unpublished and portfolio transactions are estimated using sales comps.

Quarterly Transactions



Source: Yardi Matrix. Data as of March 2022

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 for portfolio transactions or those with unpublished dollar values are estimated using sales comps based on similar sales in the market and submarket, use type, location and asset ratings, sale date and property size.

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