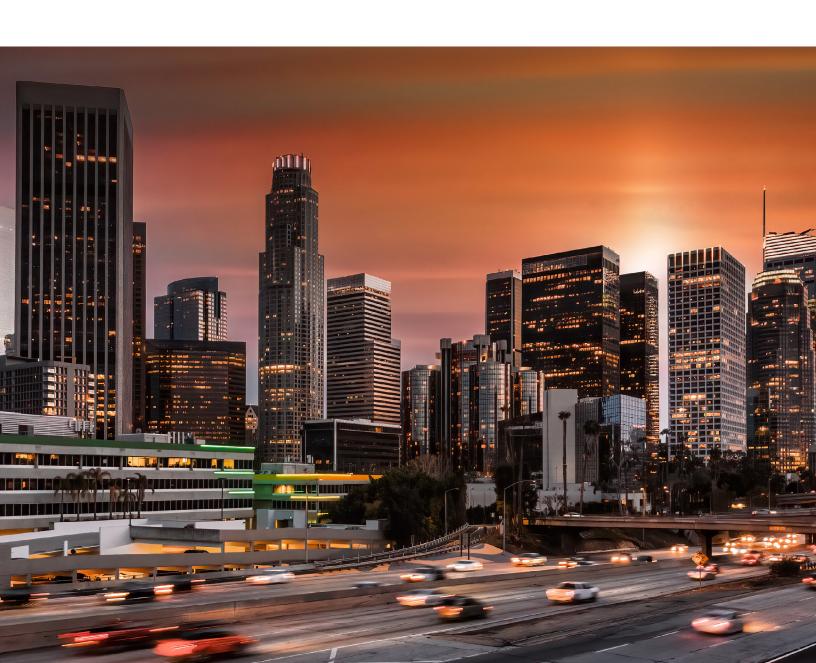


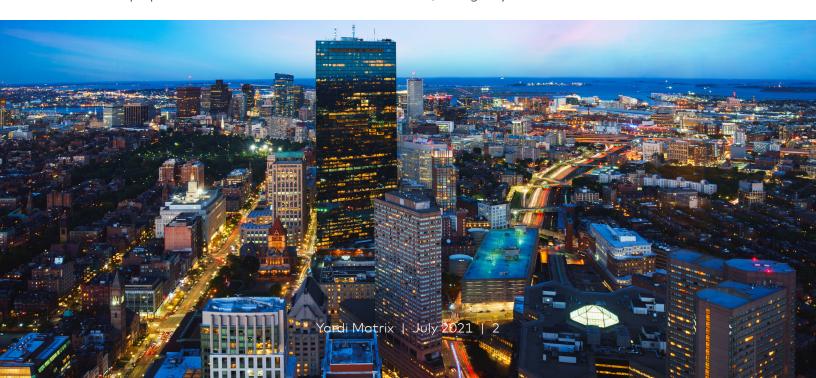
National Office Report

July 2021



Office Conversions Have Appeal, But Challenges Abound

- As the office industry struggles to adjust to a new paradigm in the waning stages of the COVID-19 pandemic, interest in the conversion of underperforming assets is beginning to grow.
- Lab space is in high demand, with mRNA technology unlocking the door for researchers to study treatments for everything from HIV to heart disease to cancer. These researchers will need new lab space, much more than is currently available, and conversions will be part of the supply response. Leasing volumes are down across the board in office, with the exception of life sciences. A recent report from Newmark stated that new lab space in prime markets leases at a 20-40% premium over general office.
- Interest in conversions is sparking transaction activity. The \$1.2 billion purchase of 401 Park in Boston, the largest sale of the year, was made with intent to convert the building into lab space. In the Bay Area, Longfellow Real Estate Partners spent \$178 million on the San Mateo Bay Center, with an eye towards life science repositioning.
- For most offices, however, conversions into life science space may be unfeasible. The biomedical and life science industries are clustered in a few markets. Cushman & Wakefield reported that nearly three-quarters of all North American investment in life science firms is concentrated in Boston, the San Francisco Bay Area, San Diego, New York City and New Jersey. While growing demand for lab space may create opportunities in new markets, for now conversion opportunities will remain highly clustered. Outside of geographic challenges, life science buildings typically require large floor plates and high ceilings, eliminating most towers as a possibility. Additionally, zoning may create a roadblock.
- Conversions into multifamily are gaining interest from both owners and elected officials looking to increase housing supply. As an example that may serve as a template if successful, the New York state legislature recently passed a bill that allows New York's Housing Trust Fund Corporation to purchase vacant hotel and office buildings and convert them into affordable housing. Converting a building into an apartment does not have as many constraints as life sciences, but still comes with its own unique set of challenges. If floor plates are too large, apartments may not be able to get natural light or proper ventilation. As with life science conversions, zoning may also be an issue.



Listing Rates and Vacancy: Bay Area Rents Grow Despite Turbulence

- Nationally, the average full-service equivalent listing rate for June was \$38.60, up 1.1% year-over-year but down six cents from May. The national vacancy rate was unchanged from the previous month at 15.6%, up 240 basis points from the same time last year.
- Same-store rates grew the most in the Bay Area (7.5%), Denver (5.6%) and Boston (5.2%).
- Listing rate growth can reflect the quality of assets up for sale more than the underlying market fundamentals, as evidenced by the

growth in Bay Area rates. Despite vacancy rates that have increased 260 basis points over the last year and corporate relocations out of the market, the average full-service rate has increased 4.9%. Much of this is due to the relocations putting high-quality space on the market. Hewlett Packard Enterprise recently left its longtime headquarters at 3000 Hanover St. in Stanford Research Park in Palo Alto. The entire building was put on the market at a full-service rate of \$89.93 per foot, and half of that space has already been leased to cancer blood test research firm Guardant Health.

Listings by Metro

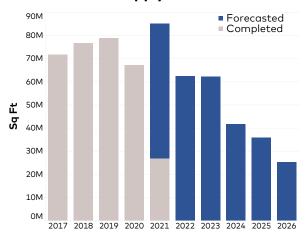
Market	Jun-21 Listing Rate	12-Month Change	Total Vacancy	12-Month	Top Listing	Price Per Square Foot
	-		•	Change	lop Listing	Square Foot
National	\$38.60	1.1%	15.6%	90 bps	000 71 : 1	400.00
Boston	\$35.46	7.6%	11.7%	70 bps	222 Third	\$93.00
Los Angeles	\$41.29	7.2%	13.1%	60 bps	100 Wilshire	\$108.00
Bay Area	\$55.56	4.9%	18.6%	260 bps	525 University	\$150.00
Miami	\$43.11	4.7%	14.6%	10 bps	830 Brickell Plaza	\$100.00
Denver	\$29.79	4.2%	16.6%	300 bps	1601 Wewatta Street	\$51.11
Austin	\$43.33	4.2%	16.4%	710 bps	Indeed Tower	\$70.67
Nashville	\$31.68	4.1%	18.8%	510 bps	The Pinnacle at Symphony Place	\$44.00
Philadelphia	\$29.97	4.1%	13.4%	-20 bps	One Liberty Place	\$51.71
Tampa	\$28.93	4.0%	15.9%	300 bps	Midtown West	\$44.00
Washington DC	\$41.79	3.6%	16.8%	-30 bps	601 Pennsylvania Avenue NW - North Bldg	\$90.00
New Jersey	\$33.06	3.5%	19.4%	-450 bps	Liberty Innovation Center	\$70.29
Phoenix	\$27.94	2.9%	18.0%	-390 bps	One Hundred Mill	\$48.50
Atlanta	\$27.72	2.2%	20.0%	190 bps	300 Colony Square	\$50.00
Orlando	\$22.04	2.8%	15.6%	160 bps	GuideWell Innovation Center	\$34.66
Dallas	\$28.73	2.0%	18.5%	-100 bps	Union Dallas, The	\$56.37
Charlotte	\$29.13	0.4%	12.3%	120 bps	300 South Tryon	\$42.00
Chicago	\$28.15	-0.2%	16.9%	150 bps	Five One Five North State	\$66.02
Twin Cities	\$26.96	-0.5%	15.9%	100 bps	Offices at MOA, The	\$40.00
Houston	\$30.12	-0.6%	23.3%	0 bps	Texas Tower	\$58.40
Portland	\$30.27	-0.9%	15.2%	150 bps	Park Avenue West	\$48.69
San Diego	\$38.57	-1.1%	14.3%	-270 bps	2100 Kettner	\$69.00
Seattle	\$35.99	-2.3%	15.0%	600 bps	City Center Bellevue	\$63.50
Manhattan	\$83.60	-3.0%	10.9%	180 bps	550 Madison Avenue	\$210.00
San Francisco	\$68.59	-3.1%	14.3%	480 bps	Sand Hill Commons	\$156.00
Brooklyn	\$48.08	-4.9%	16.2%	-250 bps	One MetroTech Center	\$65.59

Source: Yardi Matrix. Data as of June 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: Boston Development Led By Large, Energy-Efficient Spaces

- Nationally, 160.7 million square feet of new office supply is under construction.
- While the pandemic has reshaped office demand, long timelines for projects to deliver mean that the new-development pipeline reflects trends of office markets before COVID-19. This is why some gateway markets, which many suspect will see the worst declines in office demand in coming years, still sport large under-construction pipelines. Boston (13.5 million square feet under construction, 5.5% of stock), Manhattan (20.9 million, 4.3%) and San Francisco (6.4 million, 4.1%) are adding plenty of space at a time when the future of office in gateway markets is uncertain.
- Due to a large concentration of jobs in life sciences, the industry least amenable to remote work, Boston may be better positioned for the post-pandemic world than other gateways. Large, energy-efficient trophy assets currently dominate the city's pipeline. Five buildings with proposed LEED certification, totaling more than 5.5 million square feet, are under construction in CBD and urban submarkets. Most prominent among them is Winthrop Center in the CBD. The 1.4 million-square-foot building is aiming for a LEED Platinum certification.

National New Supply Forecast



Source: Yardi Matrix. Data as of June 2021

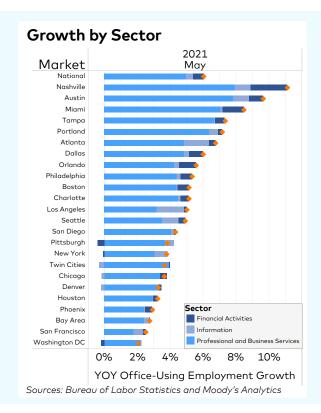
Supply Pipeline (by metro)

Market	Under Construction	Under Construction % Stock	Plus Planned % Stock
National	156,580,469	2.4%	5.9%
Austin	7,189,534	8.4%	23.6%
Brooklyn	2,640,852	6.7%	13.8%
Charlotte	4,341,360	5.9%	11.5%
Boston	13,480,067	5.5%	10.8%
Nashville	3,027,166	5.4%	15.0%
Seattle	6,744,738	4.7%	12.4%
Manhattan	20,867,805	4.3%	6.2%
San Francisco	6,442,987	4.1%	7.9%
Portland	2,482,040	4.1%	7.3%
Miami	2,526,859	3.7%	8.2%
Los Angeles	9,205,792	3.2%	6.3%
San Diego	3,003,893	3.2%	7.0%
Atlanta	5,157,856	2.7%	4.1%
Philadelphia	4,100,087	2.3%	4.2%
Bay Area	4,467,018	2.2%	11.5%
Houston	5,047,436	2.1%	3.8%
Dallas	4,771,579	1.8%	8.2%
Washington DC	6,098,131	1.6%	3.4%
Chicago	4,557,628	1.4%	6.3%
Denver	2,131,261	1.3%	4.4%
Phoenix	1,718,387	1.3%	5.9%
Orlando	686,500	1.2%	10.4%
Tampa	608,660	0.9%	5.6%
Twin Cities	852,335	0.7%	2.1%
New Jersey	460,387	0.2%	2.0%

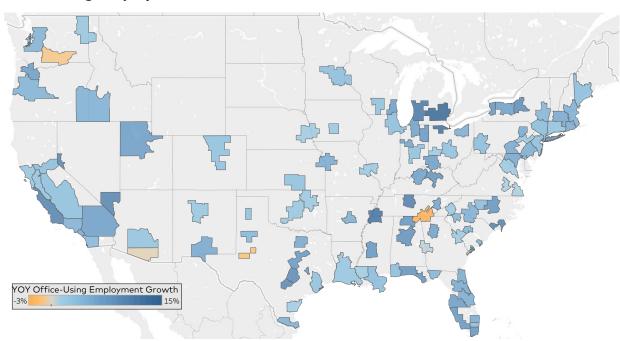
Source: Yardi Matrix. Data as of June 2021

Office-Using Employment: Labor Market Continues Slow, Steady Recovery

- Nationally, office-using employment sectors of the economy grew 5.1% year-over-year in June.
- Strong year-over-year numbers can mask the fact that the labor market has yet to fully recover to prepandemic levels. There are 886,000 fewer office-using jobs than in February 2020, and the economy only added an average of 65,000 office-using jobs per month during the first half of the year. At this pace, it would take until next August for office-using employment to fully recover. A strengthening economy should raise hopes that the recovery comes sooner than that.
- Of the 50 largest markets covered by Yardi Matrix, only seven have office-using employment levels above what they were before COVID. Salt Lake City (5.0% higher than February of 2020), Austin (4.5%), Raleigh-Durham (3.6%) and Tampa (3.0%) lead the way. Markets struggling the most are Las Vegas (-10.9%), Los Angeles (-9.5%) and New York (-6.8%).



Office-Using Employment Growth

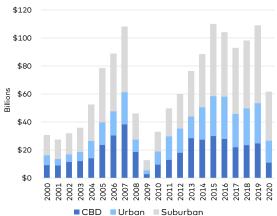


Sources: Bureau of Labor Statistics and Moody's Analytics

Transactions: Some Sun Belt Markets Surpass 2020 Sales in Two Quarters

■ While transaction volume has been tepid in most markets, the Sun Belt is seeing strong investor interest. Three major markets surpassed the total volume from 2020 during the first two quarters of the year. Atlanta has seen \$1.14 billion of activity so far this year, 33% higher than last year's volume. That increase pales in comparison to Miami, however. Miami's volume is already up 223% over last year, growing from \$386.6 million to \$1.25 billion so far. Nearly two-thirds of sales volume in Miami comes from three sales in the CBD. Citigroup Center sold for \$333.3 million, One Biscayne Tower for \$225.0 million and Two and Three MiamiCentral for a combined \$230 million.

Sales by Location



Source: Yardi Matrix; Data as of June 2021

Sales Activity

Market	YTD Sales Price PSF	YTD Sales (Mil, as of 06/30)	
National	\$283	\$30,028	
Bay Area	\$505	\$3,359	
Boston	\$533	\$2,182	
Manhattan	\$1,249	\$2,115	
San Francisco	\$716	\$1,822	
Dallas	\$261	\$1,441	
Seattle	\$434	\$1,396	
Miami	\$294	\$1,248	
Atlanta	\$187	\$1,136	
New Jersey	\$164	\$1,077	
Denver	\$240	\$1,053	
Los Angeles	\$388	\$1,024	
Austin	\$509	\$969	
Washington DC	\$250	\$898	
Chicago	\$304	\$753	
Phoenix	\$208	\$550	
Philadelphia	\$191	\$539	
San Diego	\$358	\$442	
Charlotte	\$300	\$406	
Nashville	\$263	\$347	
Houston	\$131	\$332	
Tampa	\$158	\$260	
Twin Cities	\$171	\$213	
Orlando	\$194	\$137	
Portland	\$287	\$54	
Brooklyn	\$752	\$53	

Source: Yardi Matrix. Data as of June 2021

Total Sales



Source: Yardi Matrix. Data as of June 2021

Definitions

This report covers office buildings 50,000 square feet and above. Yardi Matrix subscribers have access to more than 8,000,000 property records and 250,000 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:

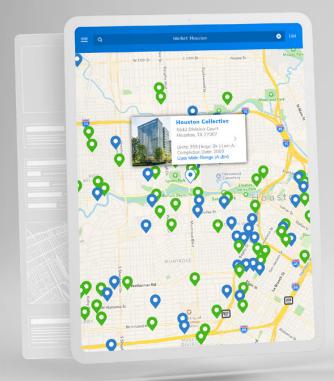
- Planned—Buildings that are currently in the process of acquiring zoning approval and permits but have not yet begun construction.
- Under Construction—Buildings for which construction and excavation has begun.

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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