Yardi® Matrix

National Industrial Report

August 2021

Data Centers a Growing Subsector

- The world has become increasingly digital, a trend that has only accelerated during the pandemic, and consequently data centers are becoming a more prominent segment of industrial real estate.

- According to Yardi Matrix, data centers are highly clustered, with more than half of all square footage located in just seven markets: Washington DC–Northern Virginia, Dallas–Fort Worth, Chicago, the Bay Area, New Jersey, Phoenix and Atlanta. Yardi Matrix data also shows the gigantic premium data centers command in the transaction market. The average sale price of a data center in 2021 is $319 per square foot, 195% higher than the $108 average sale price for industrial overall.

- The Infrastructure Investment and Jobs Act, if it becomes law, would have a massive impact on data center demand by increasing the number of broadband users nationwide. Among its allocations, $65 billion is targeted at closing the "digital divide" that keeps 10% of Americans, most of whom are in rural areas, from accessing broadband internet. The bill also includes a subsidy for low-income Americans to pay for high-speed internet. Currently, 77% of American adults have access to broadband at home, according to Pew Research. A concerted effort to provide broadband to the remaining 23% would accelerate data center demand growth.

- While most data centers are geographically clustered, that could change over the course of this decade due to the Infrastructure Investment and Jobs Act. Projects delineated in the bill include building out fiber optic networks across the country as well as expanding energy grids and increasing the capacity of renewable energy. Combined, this could open up many new markets for data centers.

- The environmental impact of data centers is a growing concern, and renewable energy cannot solve every challenge, such as the massive amount of water needed for cooling. This is an especially prominent issue in Phoenix, where water resources are scarce and data center activity is exploding. A total of 28 data center pipeline projects are located in Phoenix, with five currently under construction, eight planned and 15 prospective properties. Recently, Facebook announced a 960,000-square-foot data center in Mesa, alarming locals and elected officials over reports that the building could use a million gallons of water a day. Facebook has pledged three water projects it says will restore more water than the data center uses, while the center will use 60% less water than the typical such structure. While this may alleviate concerns for the building, water will be front and center for future Phoenix projects.

Rents and Occupancy:
Port and Southeastern Markets Lead Rent Growth

- Industrial rents averaged $6.31 per square foot in July, a 4.0% increase over the last 12 months. The national vacancy rate was 5.8%.

- Rent growth continues to be highest in Southern California markets including the Inland Empire (6.9%) and Los Angeles (6.4%). Port markets such as New Jersey (6.3%), Seattle (5.6%) and the Bay Area (4.9%) have also seen strong rent growth in recent months. Outside of port markets, the best-performing markets for rents are in the Southeast, with Nashville (6.2%), Atlanta (4.4%) and Memphis (4.0%) seeing solid rent gains over the last year.

- Rent growth is weakest in the Midwest. Markets like Kansas City (1.2% growth over the previous 12 months), Indianapolis (1.3%) and Columbus (2.1%) have failed to see the gains found in other markets despite robust demand and some of the tightest vacancies in the country. This is likely due to the impact of new supply. These markets have seen some of the highest levels of new supply over recent years.

- New leases signed over the last 12 months cost an average of 71 cents (11.3%) more than the national average rate. The highest premiums are being paid in New Jersey ($2.19 more per square foot, 28.3% higher than the average rate), Los Angeles ($1.94, 19.2%) and Seattle ($1.77, 20.0%).

- Yardi Matrix added new markets to this report, as Yardi Matrix Expert has increased its coverage in recent months to cover more than 50 markets. Yardi Matrix Expert is a cutting-edge service that uses anonymized and aggregated data to provide the most accurate rental and expense information available.

- Due to additional markets being added to the data set, the national numbers in previous reports will not be comparable to this and future reports.

Average Rent by Metro

Market	Jul-21 Average Rent	12-Month Change	Avg Rate Signed in Last 12 Months	Vacancy Rate
National	$6.31	4.0%	$7.02	5.8%
Inland Empire	$6.36	6.9%	$7.83	1.4%
Los Angeles	$10.13	6.4%	$12.07	3.4%
New Jersey	$7.74	6.3%	$9.93	3.7%
Nashville	$4.97	6.2%	$6.16	2.0%
Seattle	$8.86	5.6%	$10.63	7.3%
Bay Area	$10.83	4.9%	$11.85	7.7%
Atlanta	$4.39	4.4%	$5.24	4.6%
Miami	$8.66	4.4%	$9.49	5.7%
Memphis	$3.35	4.0%	$3.57	8.0%
Central Valley	$5.13	3.8%	$6.21	5.6%
Dallas–Fort Worth	$4.70	3.7%	$5.08	5.1%
Denver	$7.54	3.5%	$8.10	9.6%
Philadelphia	$6.36	3.5%	$7.25	4.5%
Orange County	$11.41	3.3%	$12.92	4.0%
Charlotte	$5.54	3.3%	$5.73	7.3%
Portland	$7.95	3.3%	$7.10	5.4%
Phoenix	$6.97	2.9%	$6.90	6.2%
Houston	$5.85	2.8%	$6.26	11.7%
Cincinnati	$4.07	2.7%	$4.17	7.2%
Chicago	$5.32	2.7%	$5.81	6.6%
Tampa	$6.27	2.6%	$6.30	8.4%
St. Louis	$4.25	2.4%	$3.54	8.4%
Twin Cities	$5.86	2.2%	$5.81	7.9%
Boston	$7.81	2.1%	$9.32	9.3%
Columbus	$3.93	2.1%	$3.97	2.2%
Baltimore	$6.68	1.7%	$7.15	6.7%
Detroit	$5.98	1.5%	$5.21	6.9%
Indianapolis	$3.96	1.3%	$5.53	2.4%
Kansas City	$4.31	1.2%	$4.01	3.9%

Source: Yardi Matrix. Data as of July 2021. Rent data provided by Yardi Matrix Expert. National rent and occupancy data is a weighted average of the top 30 markets.

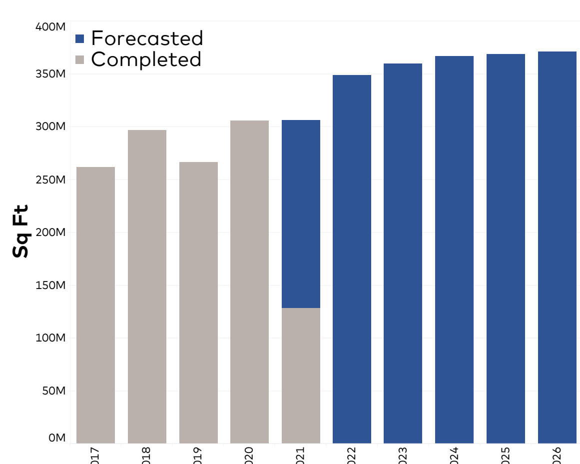
Supply: Phoenix Pipeline Shows No Sign of Slowing Down

- There are 500.0 million square feet of new industrial supply under construction and an additional 458.4 million square feet in the planning stages. While these numbers appear astounding, and are historically high, demand continues to surpass new supply.

- The most robust pipeline in the country is in Phoenix, where 23.9 million square feet, representing 9.0% of stock, are under construction. Large projects in the market run the gamut, from data centers and spec development to distribution centers and owner-occupied manufacturing. The largest project in the market is the Taiwan Semiconductor Manufacturing Plant, a 3.8 million-square-foot facility that is only in the first phase of development. The Cubes at Glendale is planned to be a 335-acre, 5.5 million-square-foot industrial park. The first building, a 1.2 million-square-foot spec development, is currently under construction.

- An additional 31.4 million square feet are in the planning stages, suggesting Phoenix's industrial stock will continue to grow over the coming years. Lucid Motors, the upstart electric vehicle company, has 5.4 million square feet in planned expansions to its 1 million square feet already in operation in Casa Grande.

National New Supply Forecast



Source: Yardi Matrix. Data as of July 2021

Supply Pipeline (by metro)

Market	Under Construction	Under Construction % Stock	UC Plus Planned % Stock
National	500,018,511	3.3%	6.3%
Phoenix	23,870,065	9.0%	22.9%
Kansas City	10,370,526	4.7%	11.4%
Dallas	31,891,213	3.9%	9.3%
Indianapolis	15,605,949	5.7%	9.2%
Charlotte	9,104,810	4.1%	9.2%
Philadelphia	10,817,055	3.4%	8.9%
Denver	8,602,229	3.6%	7.8%
Inland Empire	21,535,307	3.7%	7.1%
Seattle	9,879,752	3.7%	7.0%
Memphis	10,520,129	4.3%	6.5%
Chicago	25,431,655	2.9%	6.4%
Houston	17,955,847	3.4%	6.4%
Central Valley	9,225,353	2.9%	5.5%
Columbus	10,110,802	4.1%	5.3%
Nashville	4,847,631	2.8%	5.3%
New Jersey	10,952,245	2.1%	5.2%
Boston	6,501,554	2.8%	4.7%
Baltimore	4,591,510	2.6%	4.5%
Atlanta	13,154,599	2.6%	4.4%
Bridgeport	4,856,010	3.1%	4.4%
Bay Area	5,905,399	2.2%	4.3%
Tampa	5,685,652	2.8%	4.3%
Cincinnati	8,454,976	3.6%	4.0%
Portland	4,398,068	2.4%	4.0%
Detroit	9,249,294	1.7%	3.2%
Los Angeles	7,684,487	1.1%	2.9%
Twin Cities	3,631,279	1.4%	2.9%
Cleveland	3,609,458	1.0%	1.6%
Orange County	2,276,970	1.2%	1.5%

Source: Yardi Matrix. Data as of July 2021

Economic Indicators:
E-Commerce Grows but Share of Retail Sales Slips

- The second quarter saw $222.5 billion of e-commerce sales, a 3.3% increase over the first quarter. Despite solid gains in total sales volume, e-commerce's share of core retail sales fell 30 basis points, from 17.1% to 16.8%.

- Initially, the conventional wisdom was that the pandemic pushed forward the trend of e-commerce's share of core retail sales by two to three years. Yet instead of returning to steady gains, the share has remained relatively flat after the spike in the second quarter of last year. Currently the share is roughly 100 basis points ahead of where it would have been if it had stayed on its prepandemic trendline. However, these figures won't slow e-commerce's impact on industrial activity, as demand for distribution and warehousing space continues to outpace supply.

- The Delta variant might change this relationship, giving another temporary jolt to e-commerce in the third and fourth quarters if the virus continues to impact the country for the remainder of the year.

Economic Indicators

National Employment
(July)
146.8M
0.6% MoM ▲
5.2% YoY ▲

ISM Purchasing Manager's Index
(July)
59.5
-1.1 MoM ▼
5.8 YoY ▲

Inventories
(June)
$2,057.4B
0.8% MoM ▲
6.6% YoY ▲

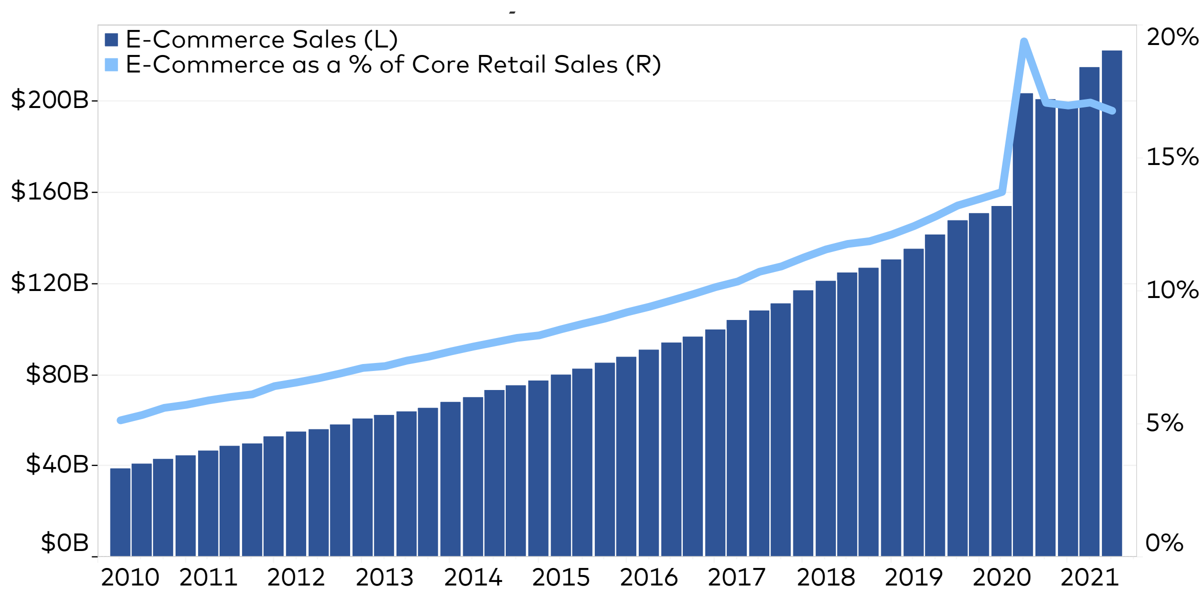
Imports
(June)
$239.1B
1.8% MoM ▲
36.1% YoY ▲

Core Retail Sales
(June)
$444.5B
1.3% MoM ▲
16.6% YoY ▲

Exports
(June)
$145.9B
0.2% MoM ▲
40.7% YoY ▲

Sources: Bureau of Labor Statistics; Institute for Supply Management, U.S. Census Bureau; Bureau of Economic Analysis; Moody's Analytics

Quarterly E-commerce Sales



Sources: U.S. Census Bureau, Yardi Matrix

Transactions:
Distribution Drives Activity in Tampa

- Industrial sales totaled $30.5 billion in the first seven months of the year. The national average sale price for industrial property is $108 per square foot, a 22.4% increase over 2020.

- A handful of the top 30 markets covered by Yardi Matrix had already surpassed 2020's sales volume through July of this year. These markets are led by Seattle, which grew from $741.1 million in sales last year to $1.1 billion so far in 2021 (a 42% increase), and Tampa, from $644.1 million to $794.1 million (23%).

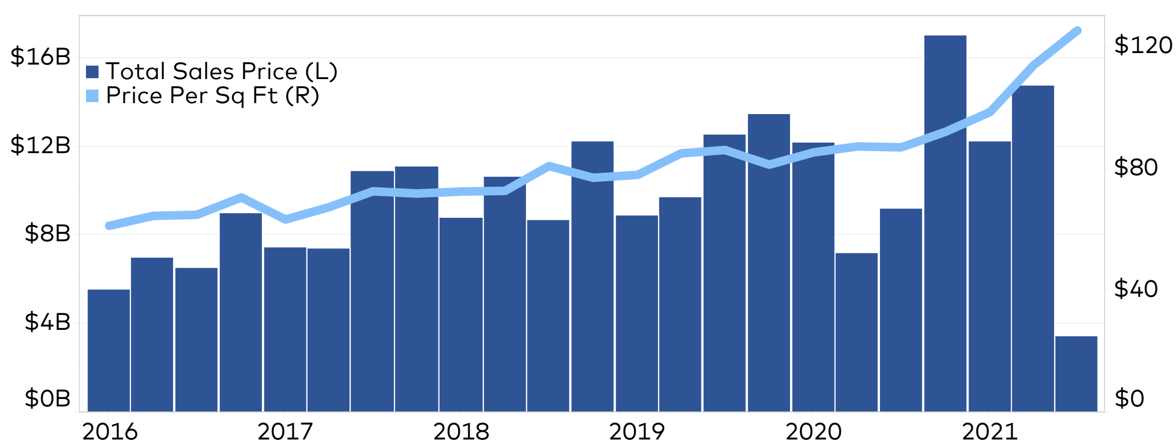
- Tampa's sales activity has been driven largely by warehousing and distribution, with both big-box and last-mile infill facilities accounting for some of the largest and most noteworthy sales in the market this year. The largest sale so far is Eaton Vance Real Estate's $170 million purchase of the 1.1 million-square-foot Amazon Fulfillment Center TPA3 from Prologis, which developed the building in 2019 after securing a lease from Amazon. The two highest sale prices on a per-square-foot basis are also for distribution facilities. A 113,000-square-foot building leased to Amazon in Clearwater sold for $204 per foot. KKR purchased Tampa Fulfillment Center, a 178,000-square-foot property less than two miles from downtown, for $183 per foot.

Sales Activity

Market	YTD Sales Price PSF	YTD Sales (Mil, as of 7/31)
National	$108.19	$30,471
Los Angeles	$190.01	$2,198
Inland Empire	$180.84	$1,996
Chicago	$70.39	$1,513
New Jersey	$204.01	$1,440
Atlanta	$78.40	$1,439
Seattle	$184.45	$1,051
Bay Area	$192.04	$1,030
Boston	$133.84	$962
Phoenix	$137.52	$962
Denver	$163.58	$854
Tampa	$99.83	$794
Philadelphia	$74.06	$735
Baltimore	$112.33	$686
Twin Cities	$84.66	$580
Orange County	$312.32	$557
Dallas	$84.65	$452
Columbus	$59.05	$415
Houston	$76.34	$411
Nashville	$105.00	$374
Indianapolis	$112.18	$309
Central Valley	$70.71	$305
Charlotte	$81.73	$303
Cleveland	$42.22	$291
Memphis	$48.67	$243
Cincinnati	$67.56	$139
Bridgeport	$60.14	$130
Kansas City	$63.79	$116
Portland	$119.71	$105
Detroit	$55.86	$104

Source: Yardi Matrix. Data as of July 2021

Quarterly Transactions



Source: Yardi Matrix. Data as of July 2021

Definitions

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

- Average Rents—Provided by Yardi Matrix Expert, a cutting-edge service that uses anonymized and aggregated data from other Yardi platforms to provide the most accurate rental and expense information available.
- 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.

Stage of the supply pipeline:

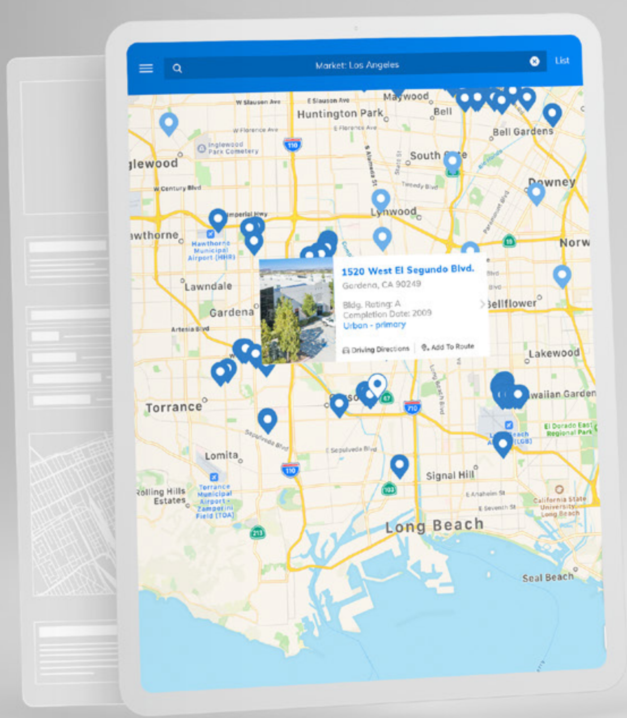
- Planned—Buildings that are currently in the process of acquiring zoning approval and permits but have not yet begun construction.
- Under Construction—Buildings for which construction and excavation has begun.

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

Supply statistics exclude owner-occupied properties.

Yardi® Matrix

Power your business with the industry's leading source for originating,
pre-underwriting and managing assets for profitable loans and investments.



Yardi Matrix Industrial delivers comprehensive property-level data, allowing you to make informed business decisions faster than ever.

Key features

- Active in 60+ major markets across the U.S., covering over 12 billion square feet
- Find acquisition prospects based on in-place loans, maturity dates, lenders and originators
- Pierce the LLC with true ownership and contact info
- Gain new supply pipeline information at the asset, competitive set and market level
- Benchmark performance to similar assets
- Access trend reports on sales, lease and listing comps as well as portfolios of owners, managers, buyers and sellers

See how we can help you achieve your investment goals.
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