

# Industrial and Office National Outlook



**JEFF ADLER**  
Vice President,  
Yardi Matrix



**CHRIS NEBENZAHL**  
Editorial Director,  
Yardi Matrix



**PETER KOLACZYNSKI**  
Senior Manager, Commercial  
Data, Commercial Edge



1. Opening Remarks
2. Macroeconomic Outlook
3. Industrial Outlook
4. Office Outlook
  - Deep Dive Into Two Niches
    - Medical Office
    - R&D Office





# Opening Remarks

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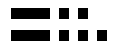




# Yardi Matrix Office and Industrial House View Nov. 2020



- Since the start of the pandemic, we have seen the following population migration trends:
  - Gateway markets to secondary tech hub markets
  - Gateway markets to smaller cities within the same metro
  - Urban cores to the suburbs
  - The question is, *what are the implications of these trends for industrial and office?*
- Recent increases in coronavirus caseloads will result in a slowdown in economic activity, but not enough to derail it
- The rise in e-commerce, fueled by the pandemic, has allowed industrial rents to continue to increase in most markets, while vacancy remains low
- Office listing rates and vacancy have remained relatively sticky with a slight downward trend during the pandemic. The long-term nature of office leases coupled with a lack of potential tenants gives owners no incentive to dramatically lower rates
- Office space utilization is down big in gateway cities as many employees continue to work from home
- Interesting things are happening below the surface in office: large increases in subleasing space in most markets, non-core income is being affected (parking fees, studio fees, etc.) and the re-evaluation of coworking
- New work environment appears likely to look like 3 days on, 2 days off, more like a consultant, where the use of space has to become more intentional and purposeful



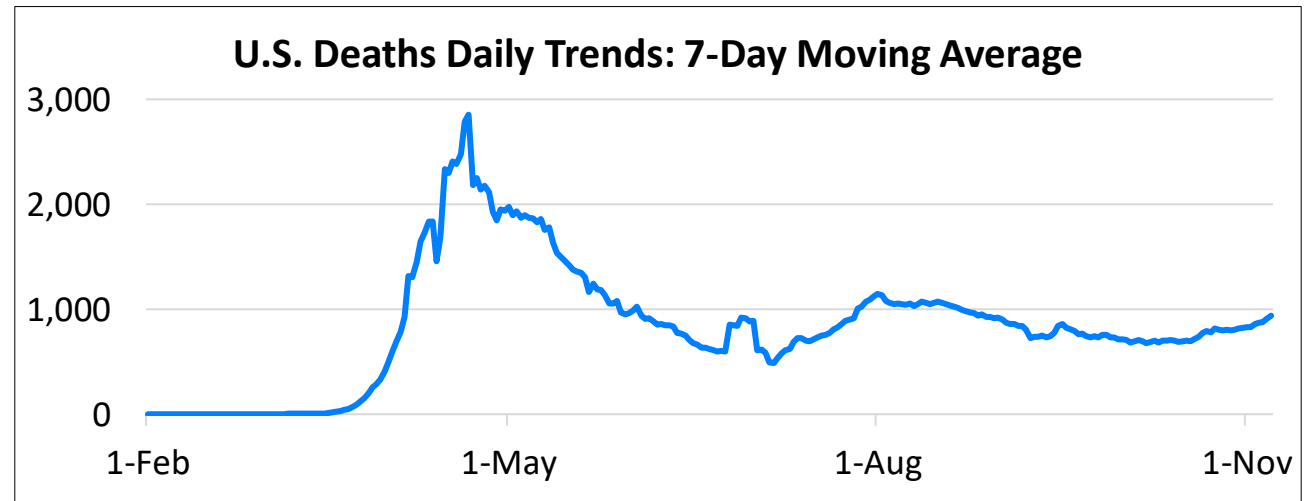
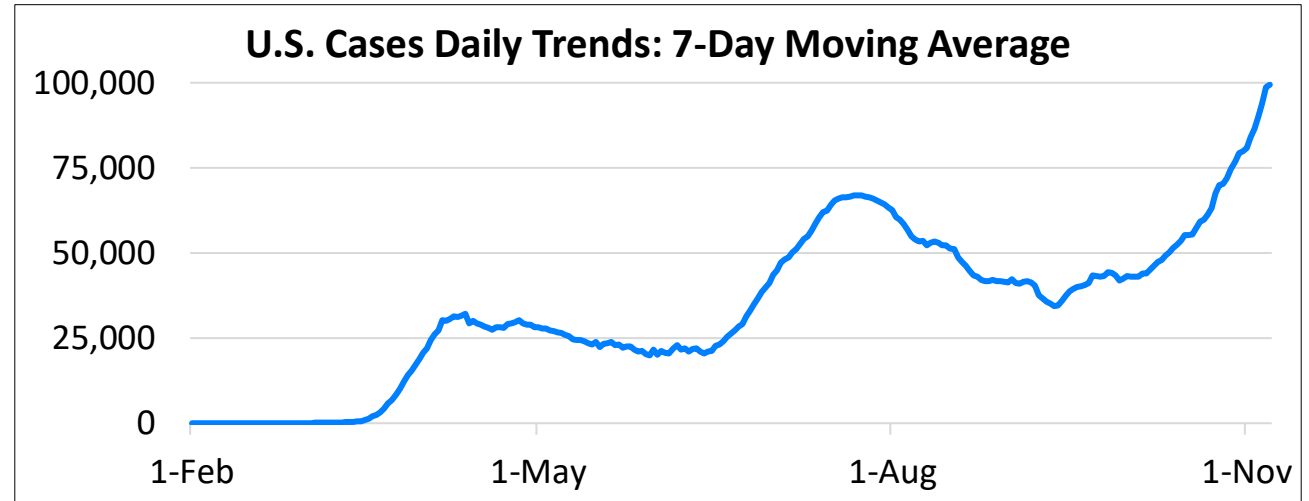
# As the COVID-19 Pandemic Continues, Researchers Around the World Race for a Vaccine



**More than 170 candidate vaccines are now tracked by the World Health Organization**

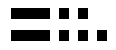
- 11 vaccines are in Phase 3 (*large-scale efficacy trials*)
- 16 vaccines are in Phase 2 (*expanded safety trials*)
- 36 vaccines are in Phase 1 (*small-scale safety trials*)
- 154 vaccines are in the Pre-clinical Phase (*not yet in human trials*)

***A vaccine developed by Pfizer has proven to be 90% effective in latest trials and the company hopes to ask health regulators for permission to sell the shot by the end of the month***



\*Daily U.S. cases and deaths data as of November 8, 2020 at 12:16 PM.

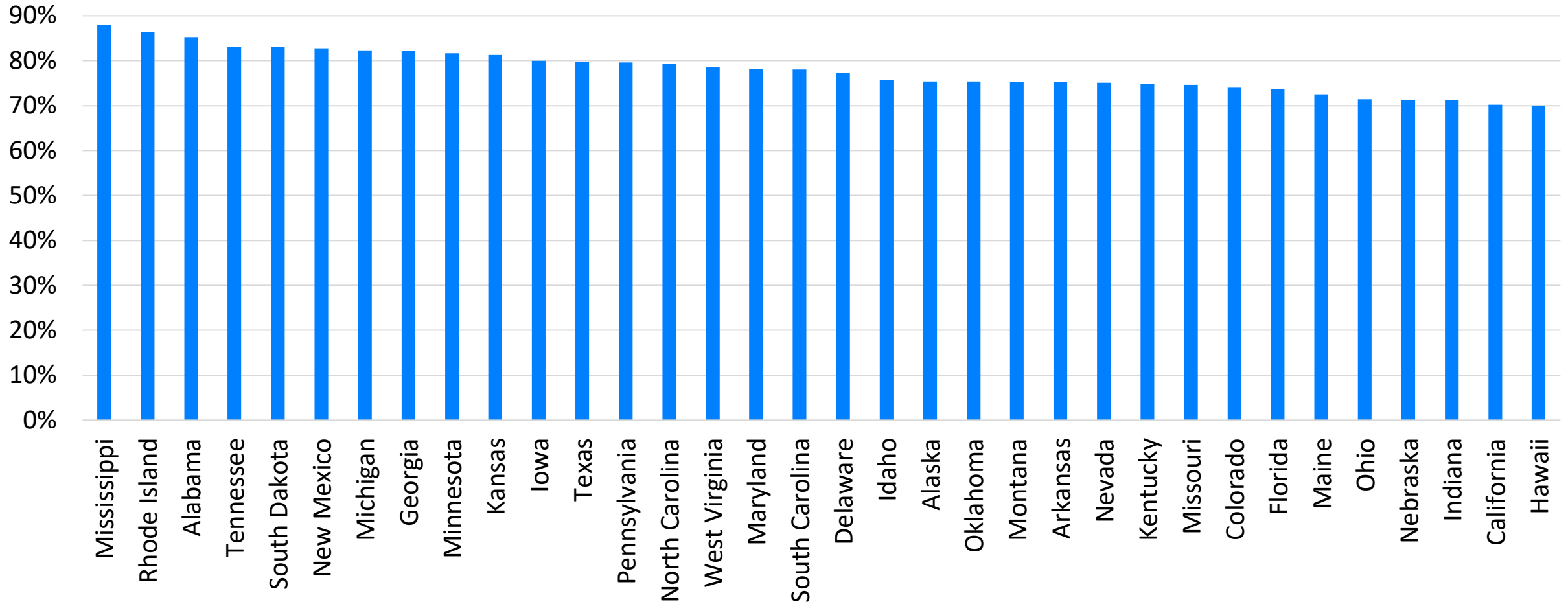
Source: Yardi Matrix; theguardian.com; Centers for Disease Control and Prevention (CDC); The Wall Street Journal



# 34 States Have ICU Utilization Above 70%, and COVID Cases Are Continuing to Increase



## States with ICU Bed Utilization Over 70%



\*Data as of November 6, 2020. Includes ICU beds utilized by all patients  
Source: Yardi Matrix; HHS Protect Public Data Hub

## While ICU Capacity at the State Level May Look Fine, Hospitals in Major Cities are Seeing ICU's Approach or Exceed Capacity

- In the **Twin Cities**, officials say **ICU beds are at 98% capacity**, causing some hospitals to start shifting COVID-19 to smaller rural hospitals and other ICU's in the region
- As of November 2, **El Paso hospitals reached a record number of COVID-10 patients as ICUs hit overcapacity** and the county has had to set up 10 mobile morgues, doubling capacity, to keep up with COVID-19 deaths
- **Hospitals in Oregon could reach capacity by mid-December** if cases continue to rise, health officials warn
- On October 16<sup>th</sup>, **the University of Utah Health hospital in Salt Lake City reported its ICU hit 104% capacity**, with additional beds set up to accommodate the soaring number of patients
- **Wisconsin opened a field hospital on its state fairgrounds** in West Allis after officials said the health care system is in crisis
- **Two out of three major hospitals in Albuquerque, N.M., are at, or exceeding, capacity**
- A spokesperson for Integris, **Oklahoma's largest health system, reported one available ICU bed** on October 15<sup>th</sup> after having none available the day before

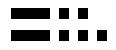


# Macroeconomic Outlook

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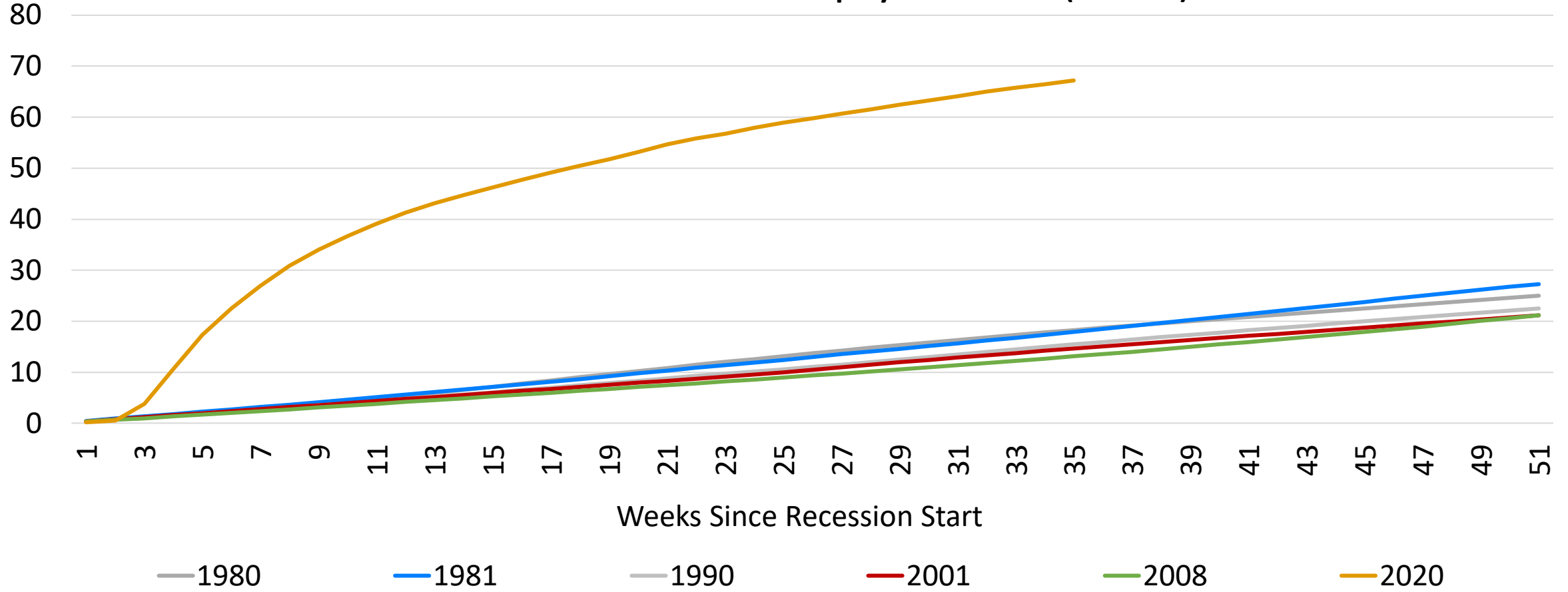




# Initial Unemployment Claims Soared Much Faster in 2020 Compared to the Five Most Recent Recessions



Cumulative Number of Initial Employment Claims (Millions)

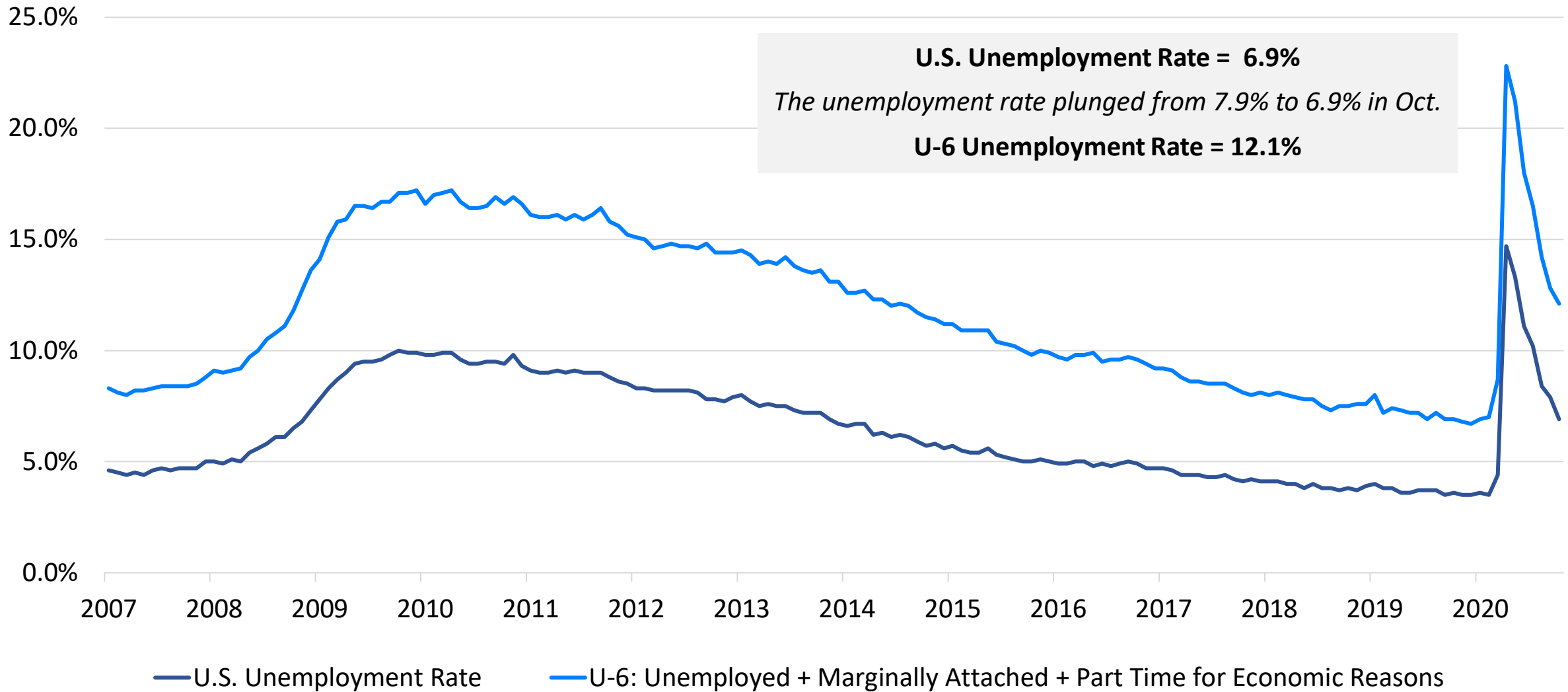


\*As of November 6, 2020. Seasonally adjusted initial unemployment claims. Data for 2020 shows cumulative claims over a 23-week period starting with March 7, 2020 week-end data

Source: Yardi Matrix; U.S. Department of Labor (DOL); National Bureau of Economic Research (NBER); Joint Center for Housing Studies of Harvard University (JCHS)

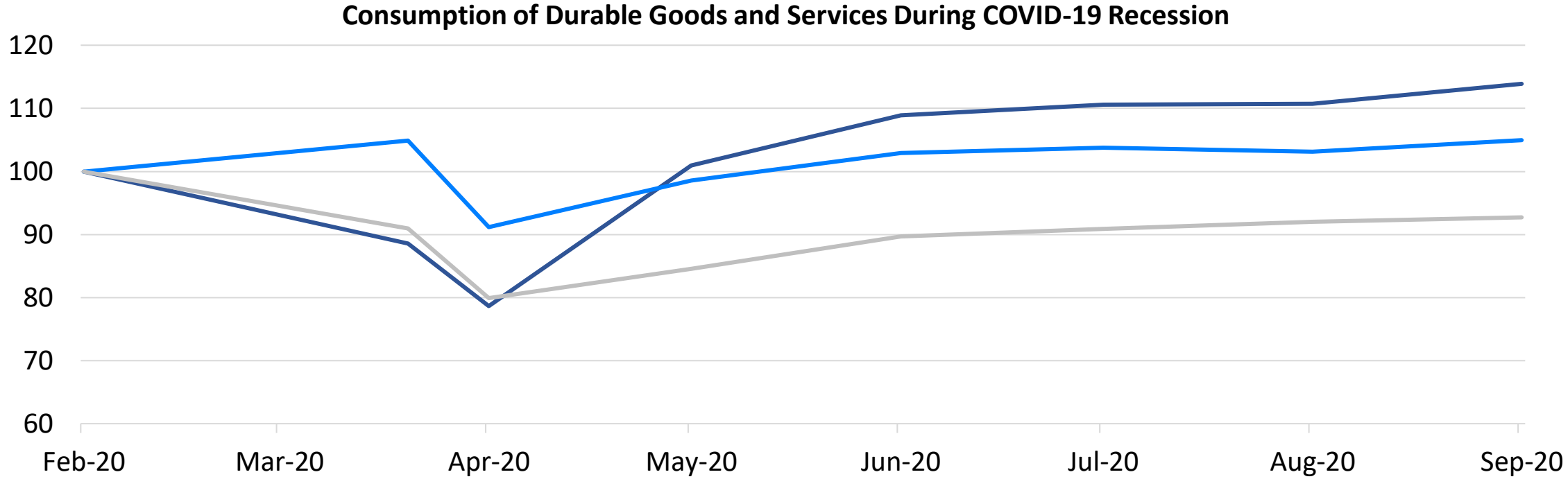


# Unemployment & Underemployment Falling, but Still Elevated



\*Data as of November 6, 2020  
Source: Yardi Matrix; Bureau of Labor Statistics (BLS)

# From Services to Goods: Consumers Are Now Spending More Money on Durable Goods

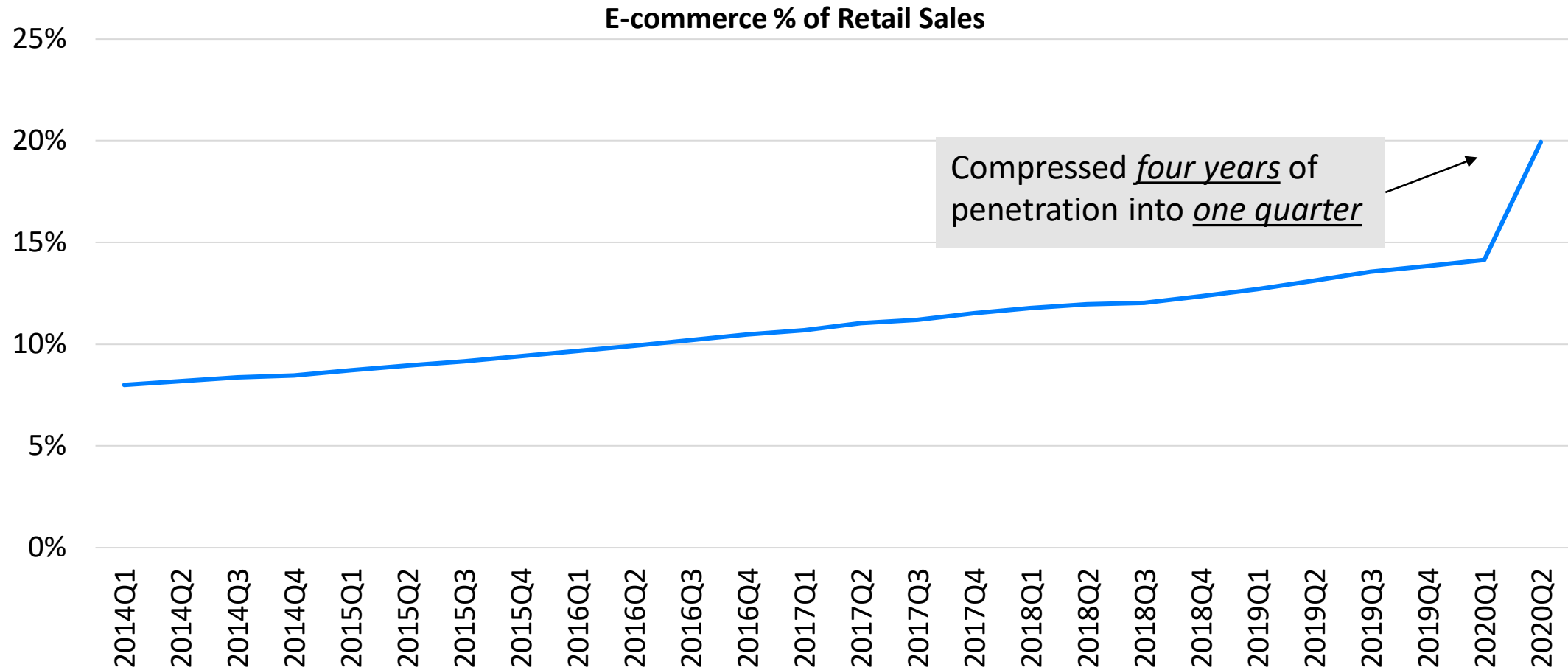


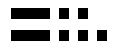
- Real Personal Consumption Expenditures: Durable Goods, Index Feb 2020=100, SAAR
- Real Personal Consumption Expenditures: Nondurable Goods, Index Feb 2020=100, SAAR
- Real Personal Consumption Expenditures: Services, Index Feb 2020=100, SAAR



Source: Yardi Matrix; Federal Reserve Bank of St. Louis (FRED); U.S. Bureau of Economic Analysis

# E-commerce Has Been on the Rise for Years, COVID Rapidly Accelerated the Trend

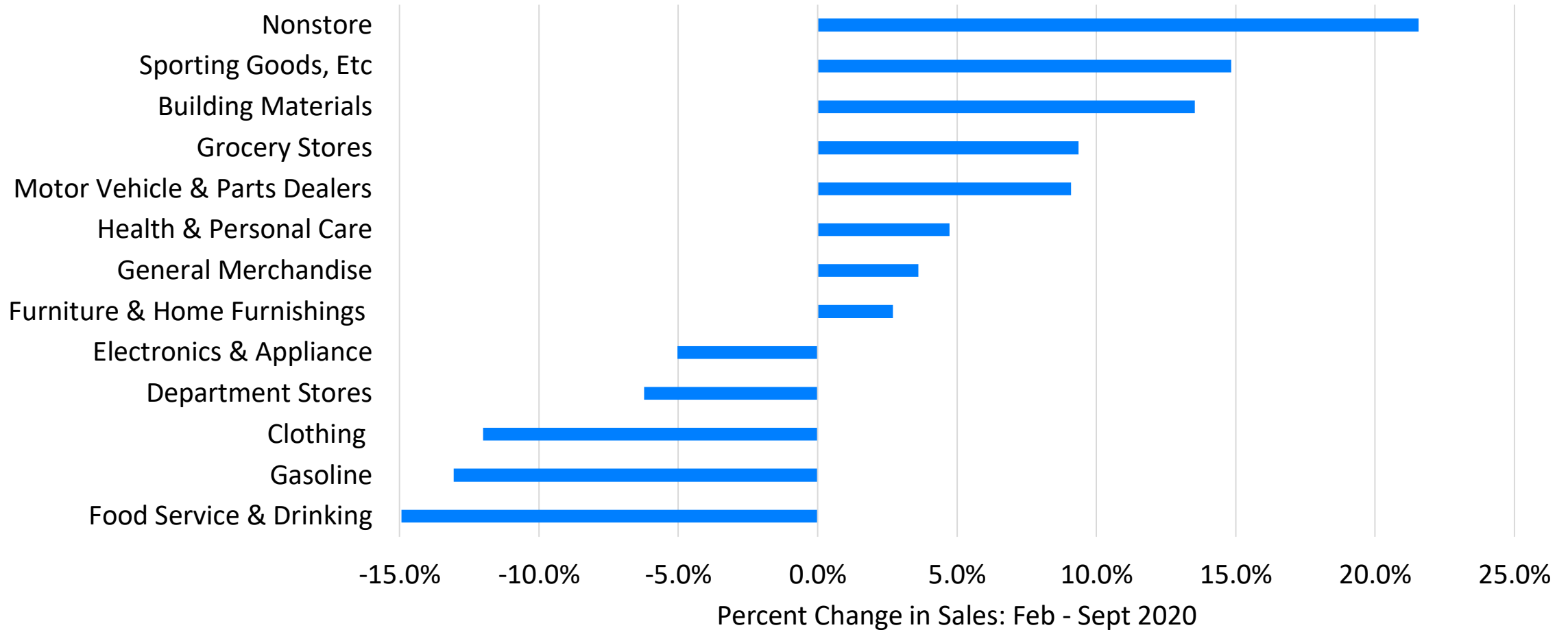


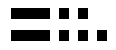


# Restaurants, Gasoline and Clothing Purchases Hit the Hardest from February to September



### Change in Monthly Retail Sales

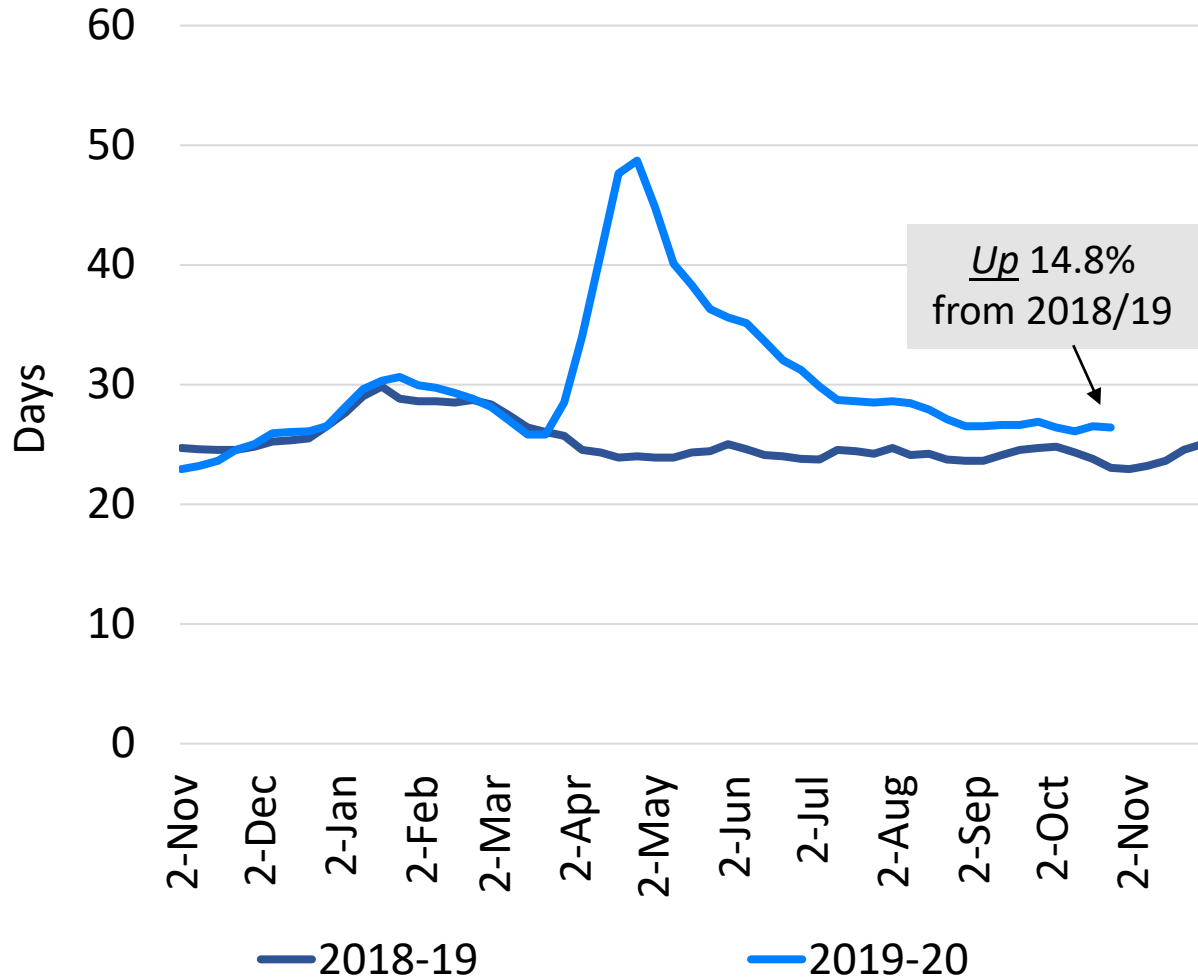




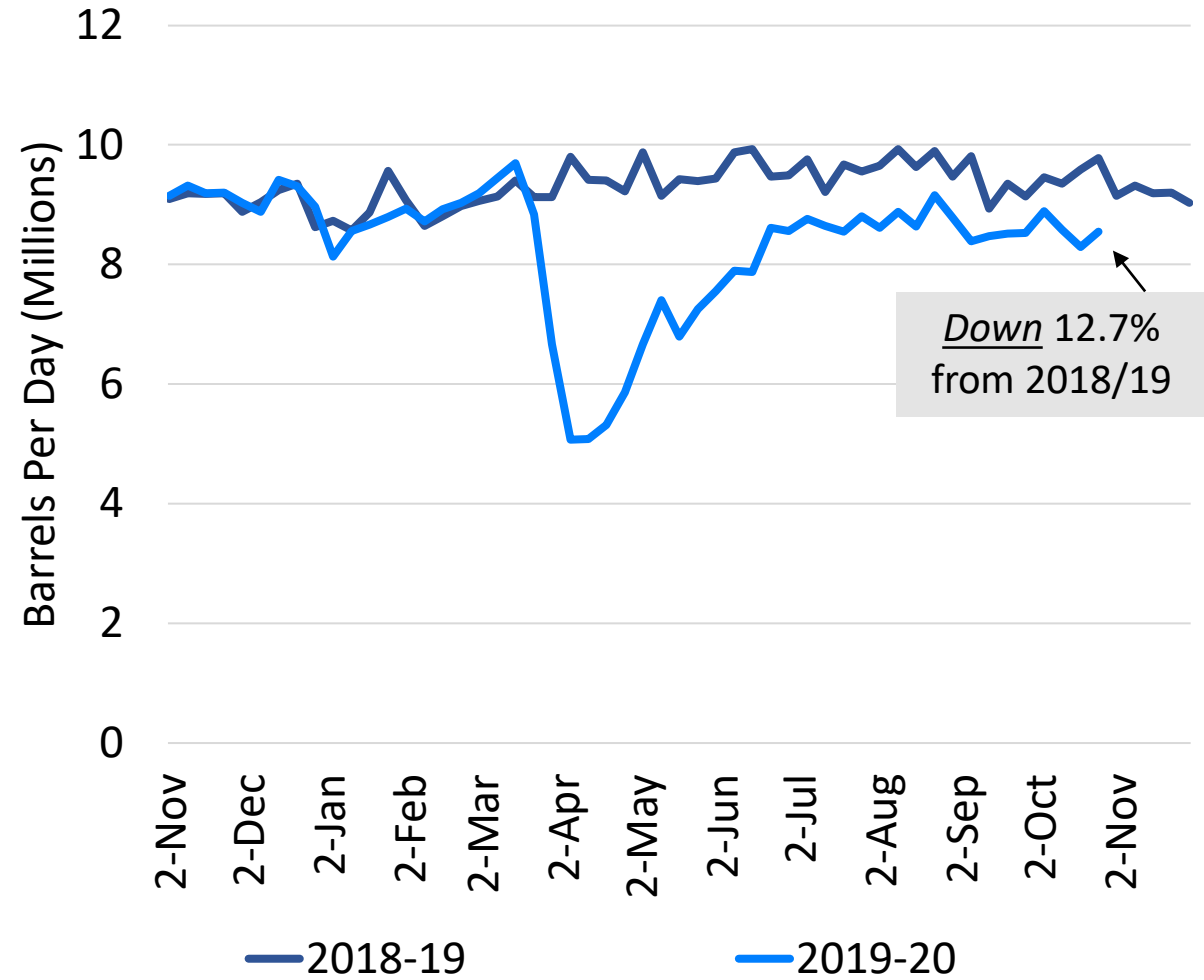
# Gasoline Supply & Demand Has Somewhat Stabilized

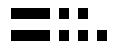


### U.S. Gasoline - Days of Supply



### U.S. Gasoline - Demand (Product Supplied)

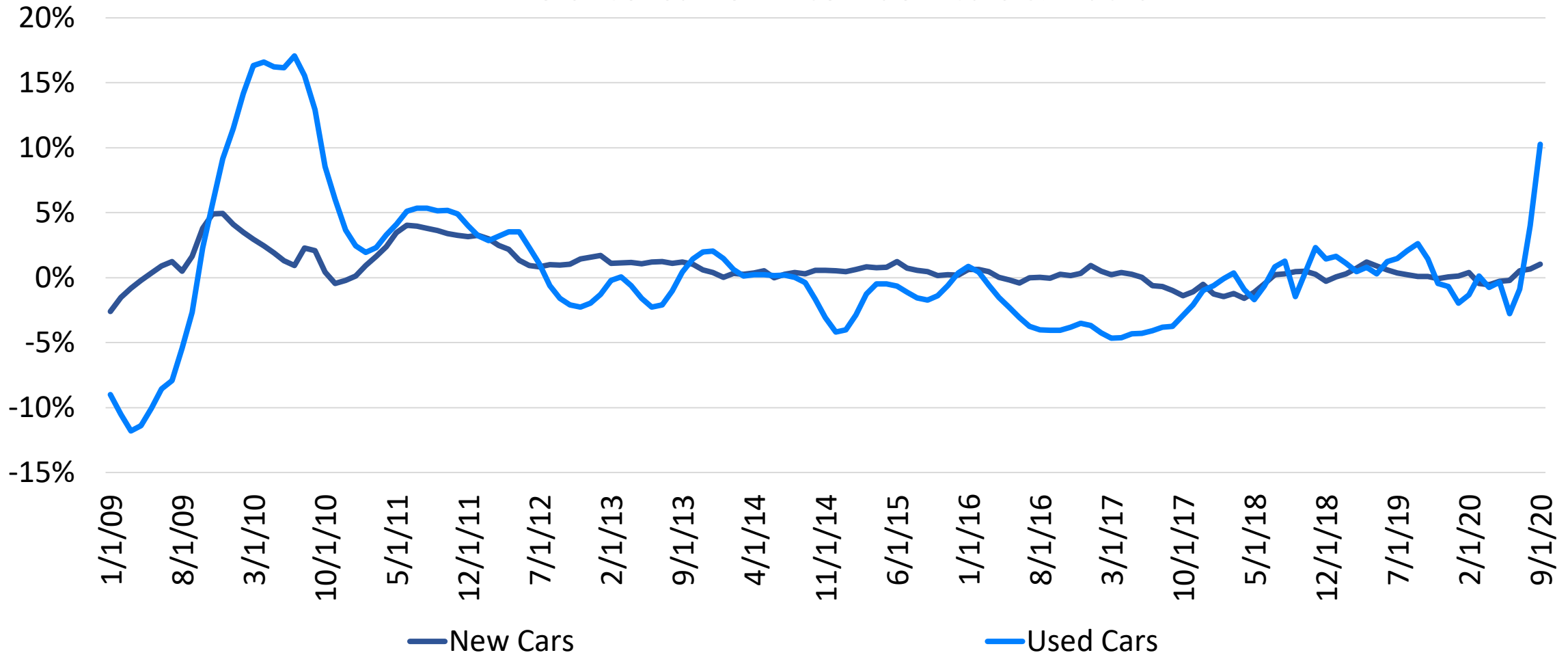


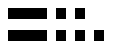


# Used Car Prices Have Surged During The Pandemic

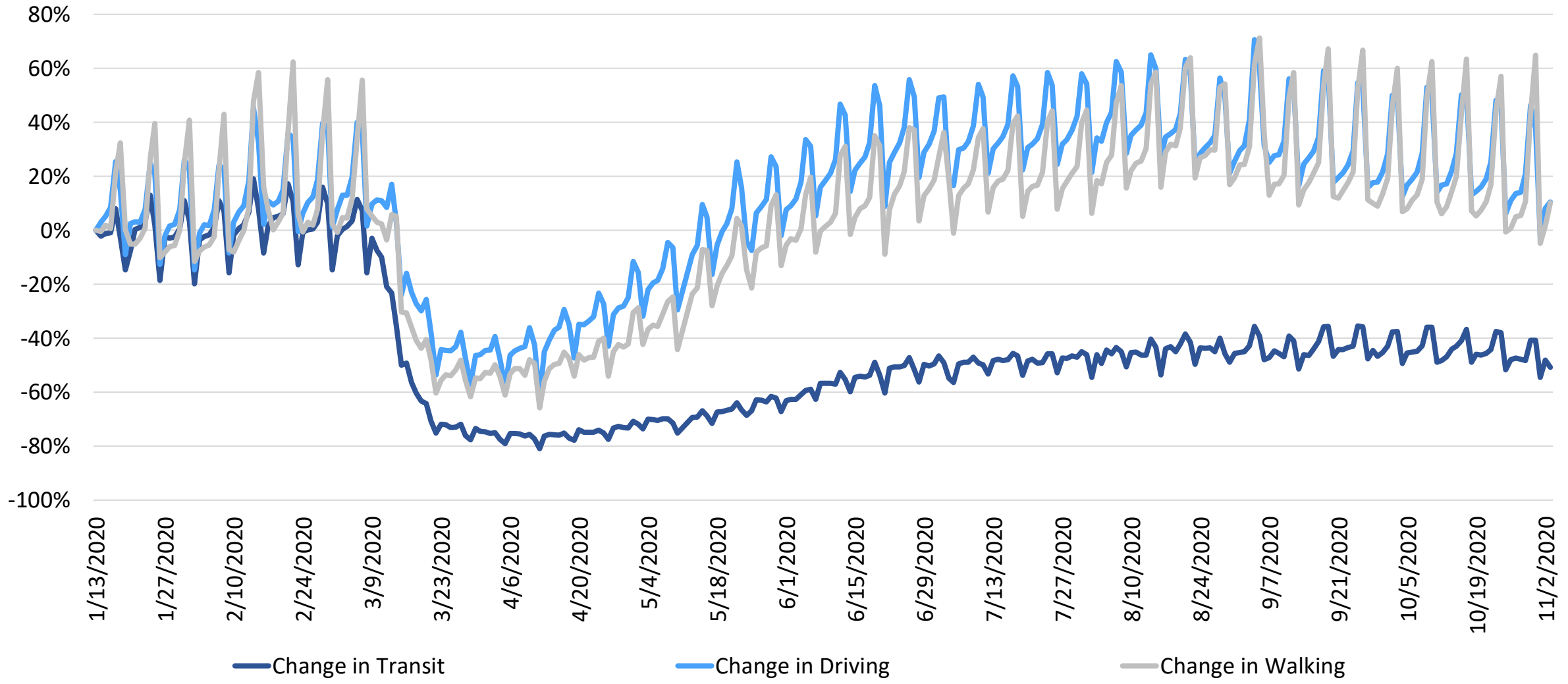


## U.S. Consumer Price Index: Cars & Trucks



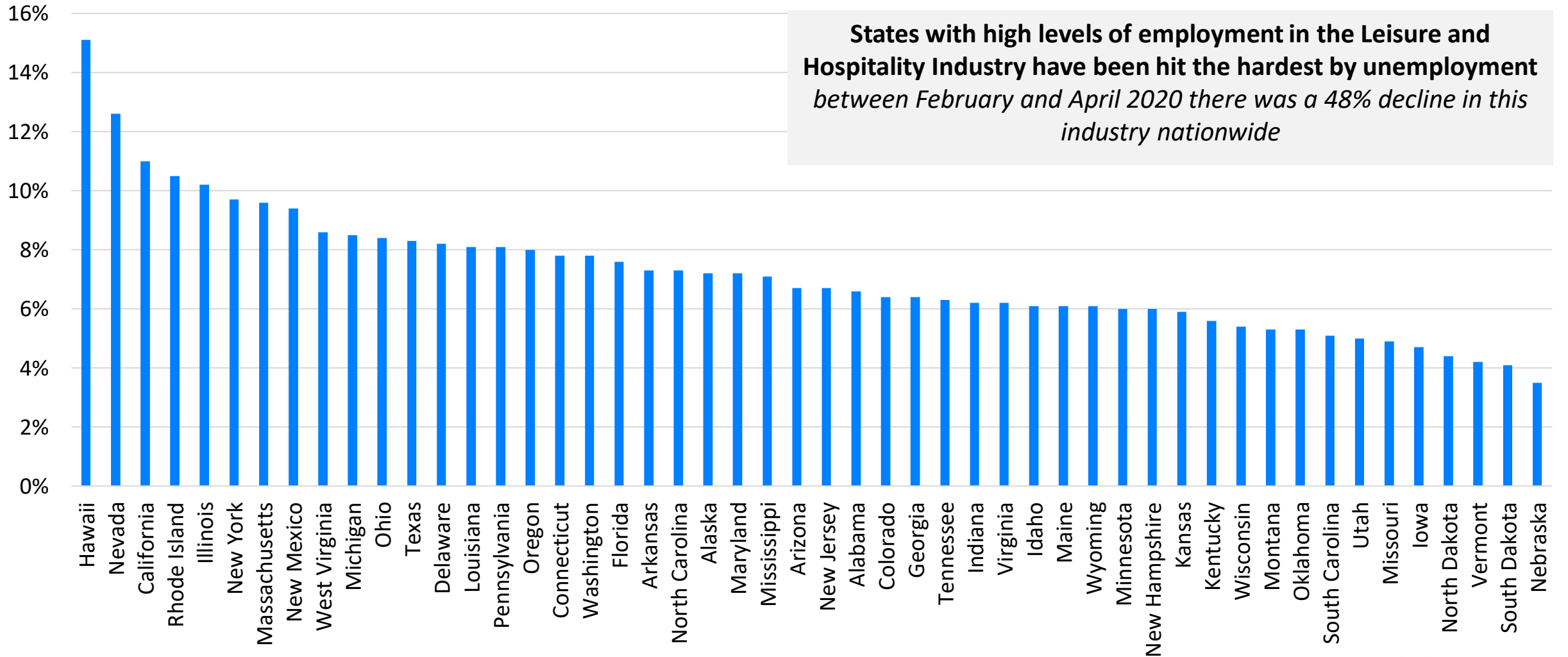


# Consumers Have Fled Public Transportation



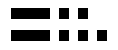


# States Relying on Leisure and Hospitality, As Well As Restrictive State Policy, Hit the Hardest by Unemployment



\*Unemployment Rates as of September 2020 (P)

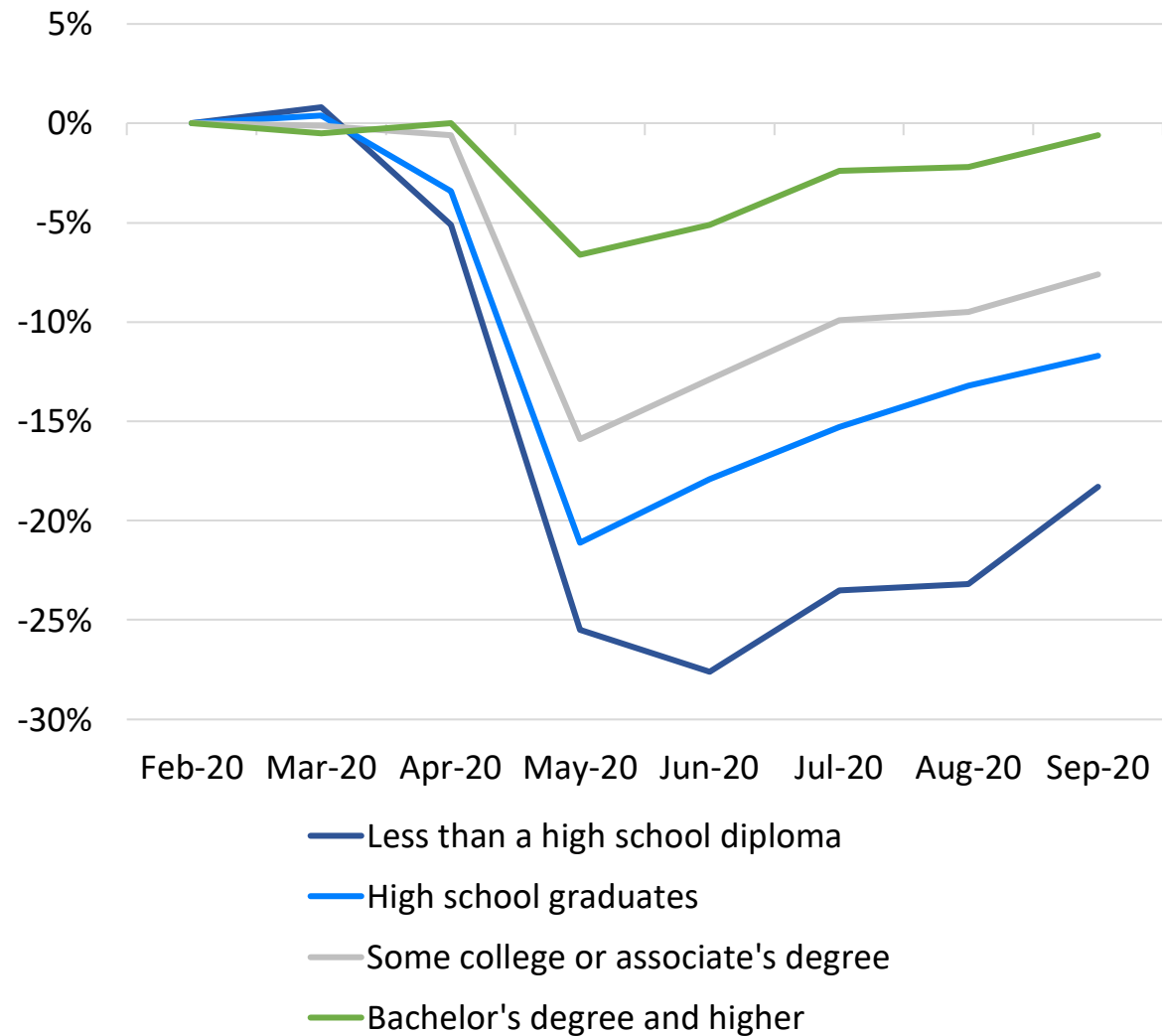
Source: Yardi Matrix; U.S. Bureau of Labor Statistics; Federal Reserve Bank of St. Louis (FRED)



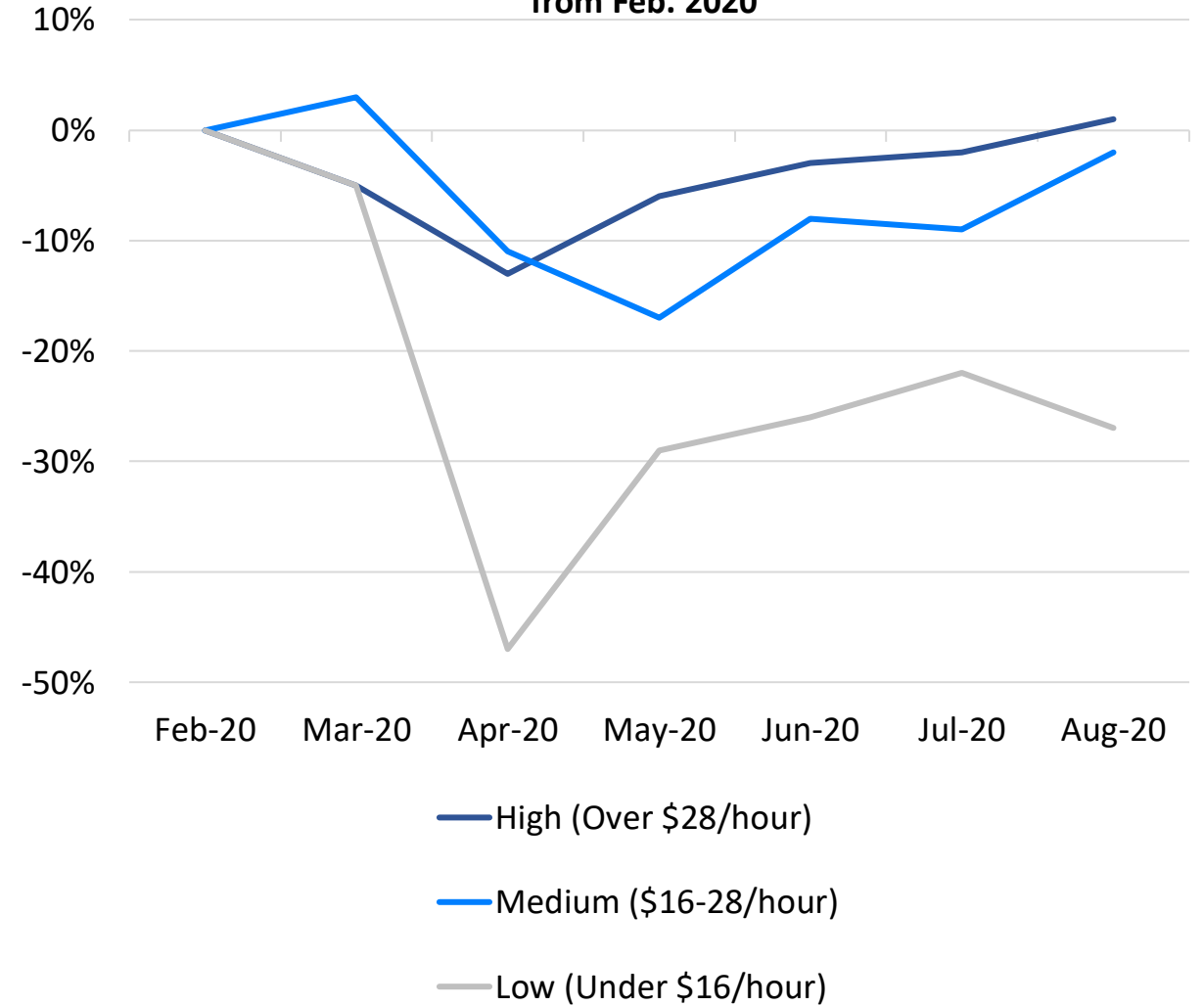
# The Recovery in the Labor Market Has Been K-Shaped



### Change in Employment from Feb. 2020

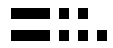


### Cumulative % Change in Employment by Wages from Feb. 2020



\*For change in employment by education level: 25 years and older, seasonally adjusted. For change in employment by wages: seasonally adjusted  
 Source: Yardi Matrix; Evercore ISI; Business Insider; Wall Street Journal; U.S. Department of Labor

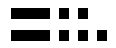




# The Decade-Long Urbanization Trend Has Been Stopped in Its Tracks



- Pre-pandemic, city centers with more culture and amenities were experiencing the most growth and desirability among employers and employees
- Now with restaurants, museums, bars and shops closed in urban centers, people are shifting their priorities to bigger spaces in smaller towns
- With new work-from-home policies, suburbs are more accessible to those who would have faced long commutes downtown to work



# Certain Trends Have Seen a Reversal or Acceleration Due to Impacts of the Coronavirus



## ***ACCELERATION OF TRENDS***

- E-commerce
- Virtualization
- Local political risk/higher taxes

## ***POTENTIAL REVERSAL OF TRENDS***

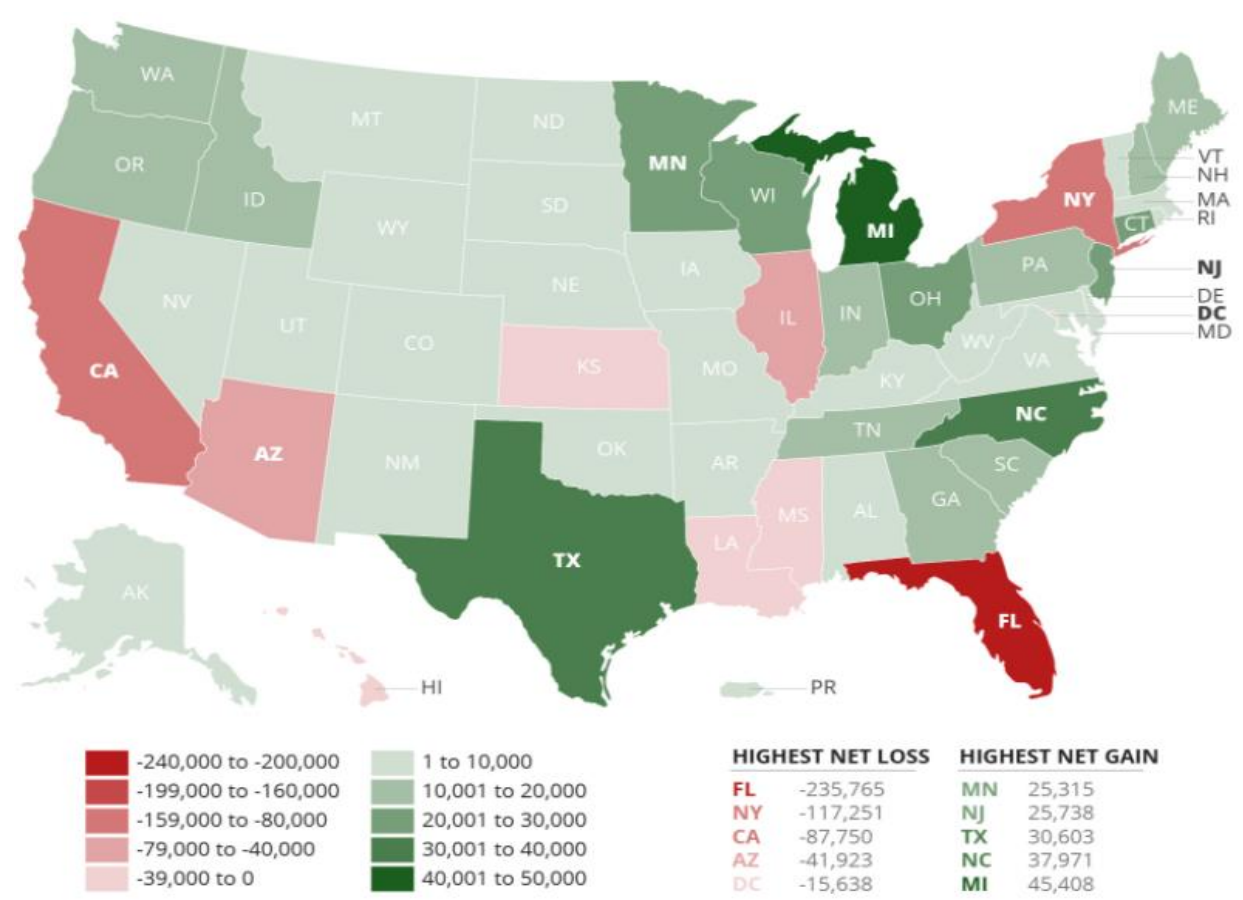
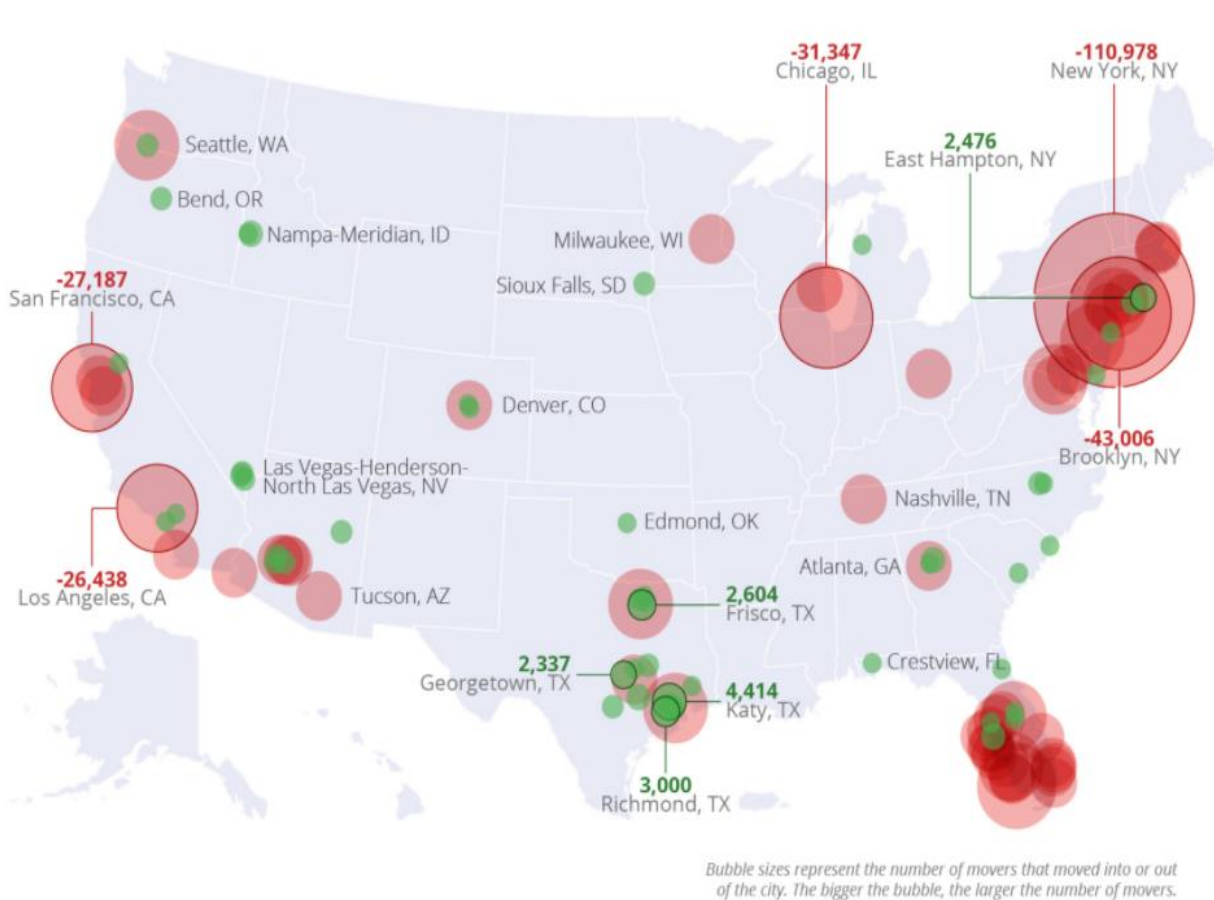
- Experiences over “Things”
- Densification
- Globalization



# Migration Amid the Coronavirus: Gateway Markets



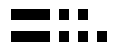
## Experiencing a Mass Exodus, While the Midwest Gains New Residents



\*Data pulled from total USPS change-of-address requests filed between Feb. 1 2020 and Jul. 31 2020. Data represents net move ins/outs

Source: Yardi Matrix; MYMOVE, <https://www.mymove.com/moving/covid-19/coronavirus-moving-trends/>

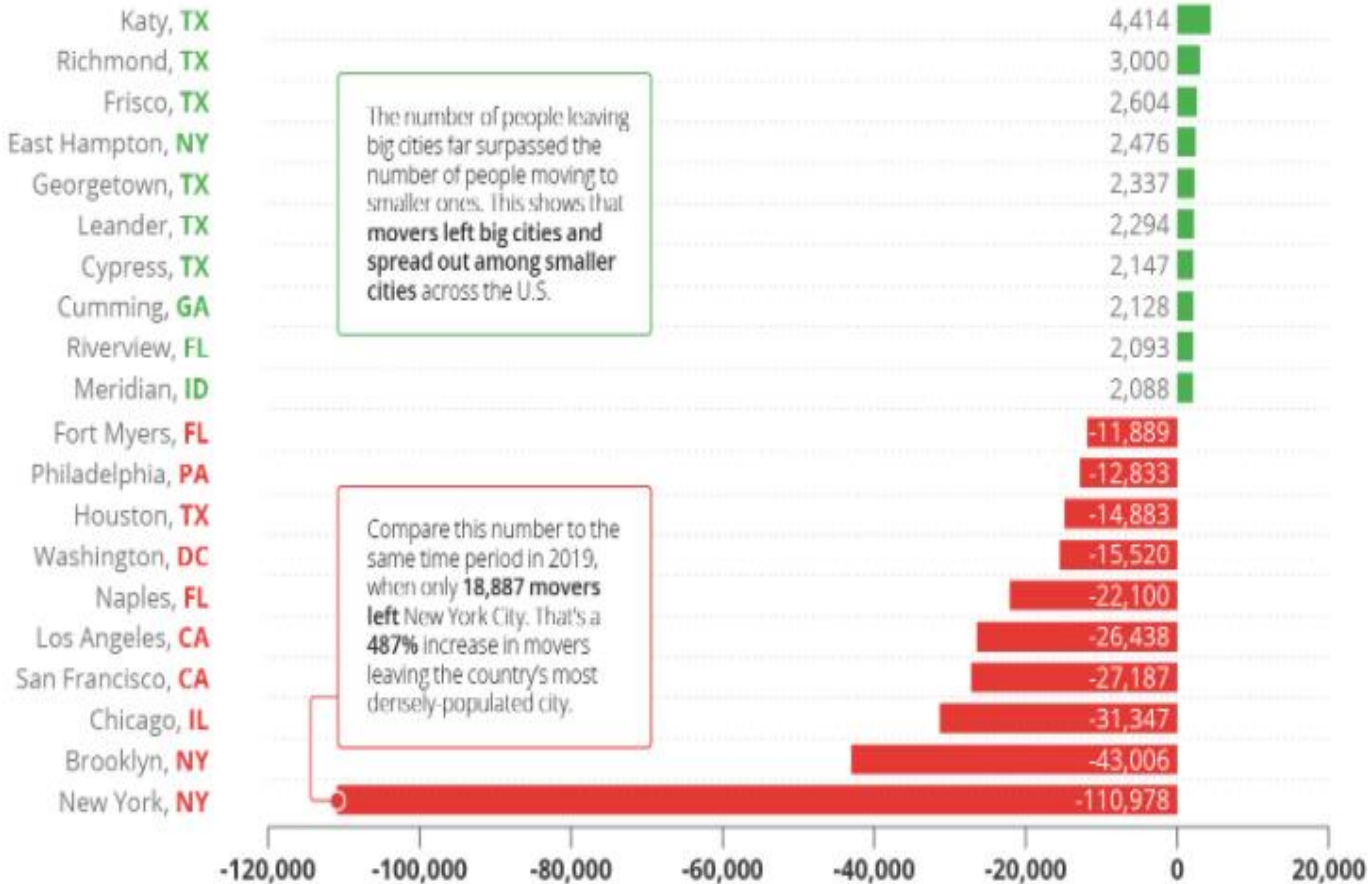




# Movement Out of Big Cities Isn't a New Thing, But the Pandemic Has Accelerated the Trend



## CITIES THAT GAINED AND LOST THE MOST MOVERS DURING THE CORONAVIRUS



2020 Top Cities Ranking	# Movers Lost in 2020	# Movers Lost in 2019
New York City, NY	-110,978	-18,887
Brooklyn, NY	-43,006	-10,144
Chicago, IL	-31,347	-15,278
San Francisco, CA	-27,187	-9,683
Los Angeles, CA	-26,438	-13,474
Naples, FL	-22,100	-27,202
Washington, DC	-15,520	-5,896
Houston, TX	-14,883	-9,106
Philadelphia, PA	-12,833	-7,853
Fort Myers, FL	-11,889	-13,359

\*Data pulled from total USPS change-of-address requests filed between Feb. 1 2020 and Jul. 31 2020. Data represents net move ins/outs

Source: Yardi Matrix; MYMOVE, <https://www.mymove.com/moving/covid-19/coronavirus-moving-trends/>

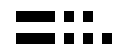


# The Movement Isn't Just From Gateway to Tech Hub Markets, Many Residents Are Moving from Densely Populated Cities to Suburbs



\*Data pulled from total USPS change-of-address requests filed between Feb. 1 2020 and Jul. 31 2020. Data represents net move ins/outs

Source: Yardi Matrix; MYMOVE, <https://www.mymove.com/moving/covid-19/coronavirus-moving-trends/>



# Understanding the Nature of Job Losses as a Driving Factor in Accelerating Migration Out of Gateway Markets

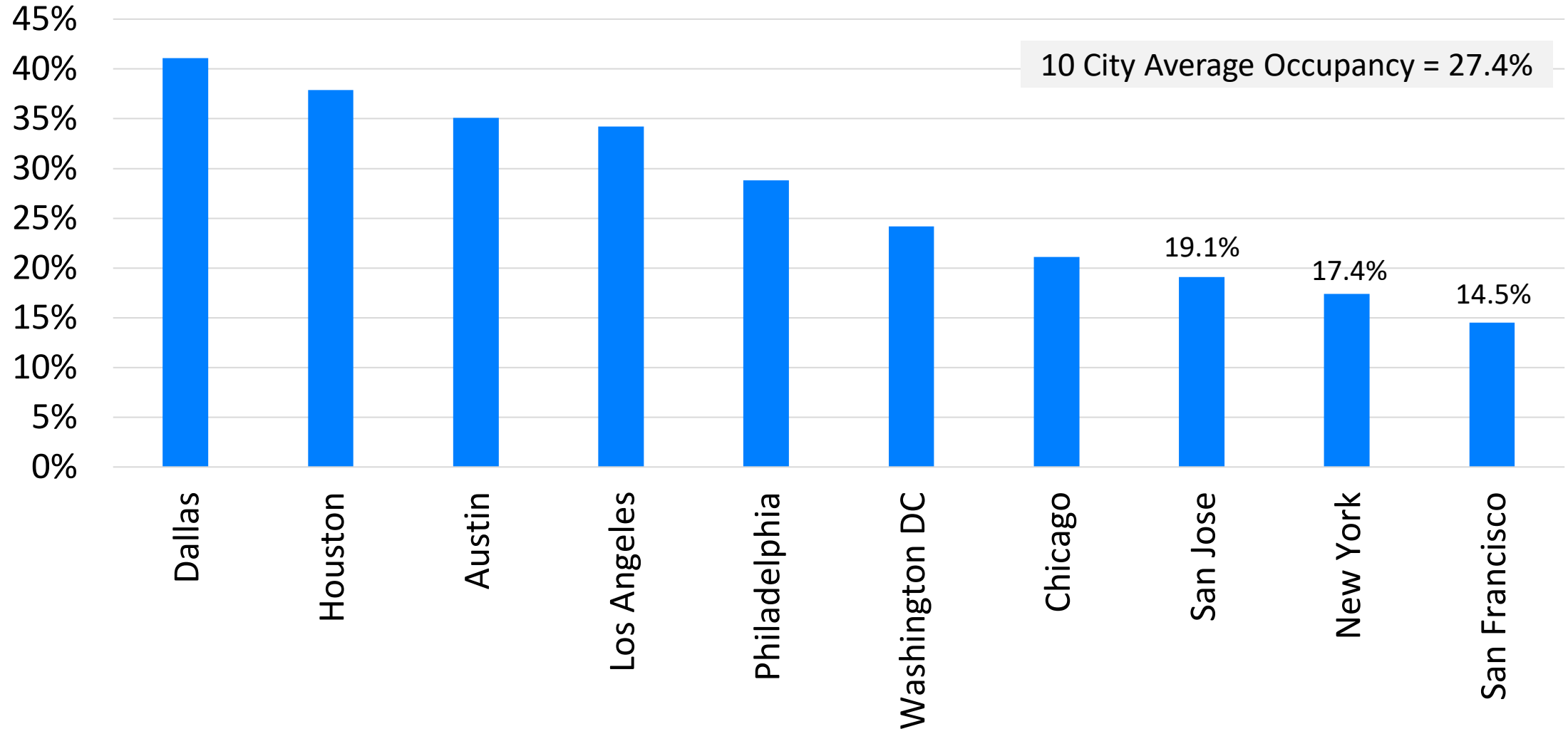


- Aside from people wanting more living space for their homes, we need to look at job losses and affordability impacts on migration trends
- The country experienced rapid and catastrophic employment loss with the spread of the coronavirus. The majority of job losses were concentrated in the service industry
- Gateway markets are tourist destinations with desirable restaurants, nightlife, and entertainment, with a large employment base in the service industry
- Gateway markets are also the most expensive to live in, and with job losses disproportionately impacting service workers, it becomes much harder to pay rent and afford the lifestyle gateway markets have to offer





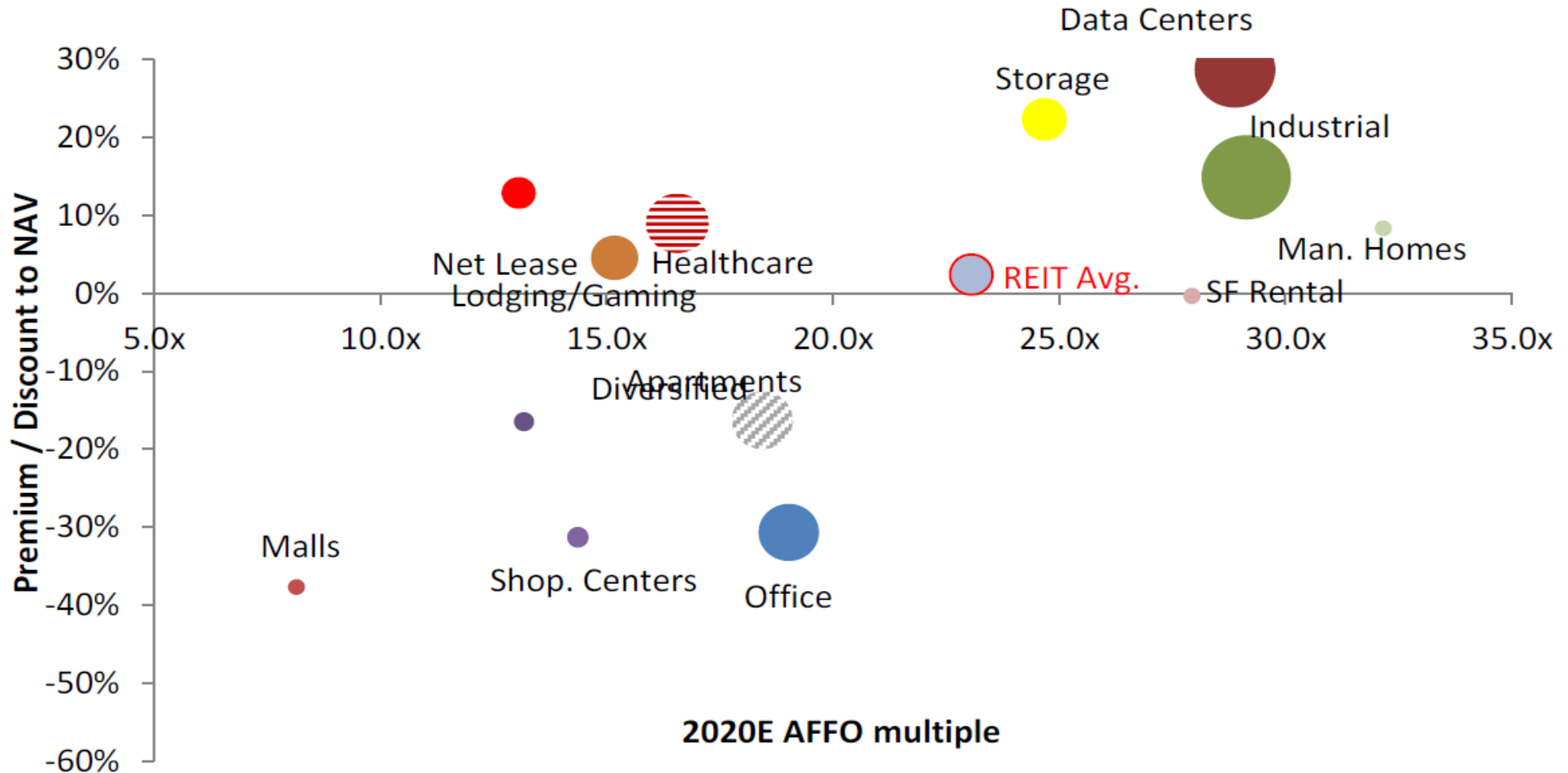
# Office Space Utilization Remains Low in Very Dense Markets



10 City Average Occupancy = 27.4%

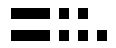
\*As of Oct. 21, 2020  
Source: Yardi Matrix; Kastle.com

# REIT Results Show Industrial Thriving, Office Not So Much



Source: BMO U.S. REIT Research, FactSet. Based off companies listed in the BREW.

Source: Yardi Matrix; BMO U.S. REIT Research, FactSet. Based off companies listed in the BREW.



# In Summary: Effect of Certain Trends on the Industrial & Office Sectors



## ACCELERATION OF TRENDS

- E-commerce:
  - ➕ Benefits industrial
- Virtualization:
  - ➖ Hurts office
  - ➕ Benefits industrial
- Local political risk/higher taxes:
  - ➖ Potential to hurt office & industrial

## POTENTIAL REVERSAL OF TRENDS

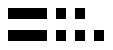
- Experiences over “Things”:
  - ➕ Benefits industrial
- Densification:
  - ➖ Hurts CBD office
- Globalization:
  - ➖ Hurts CBD office & hurts industrial



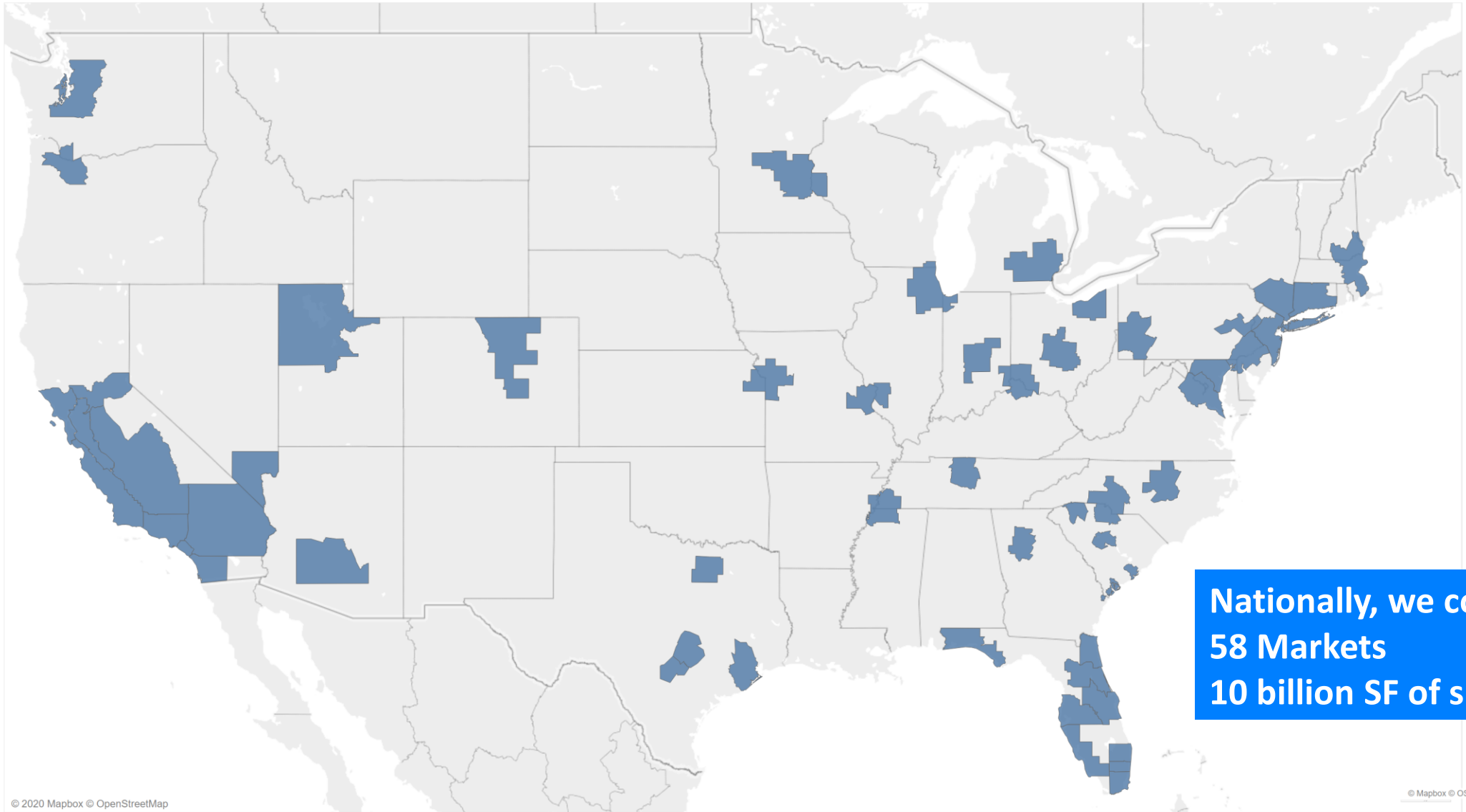
# Industrial Fundamentals

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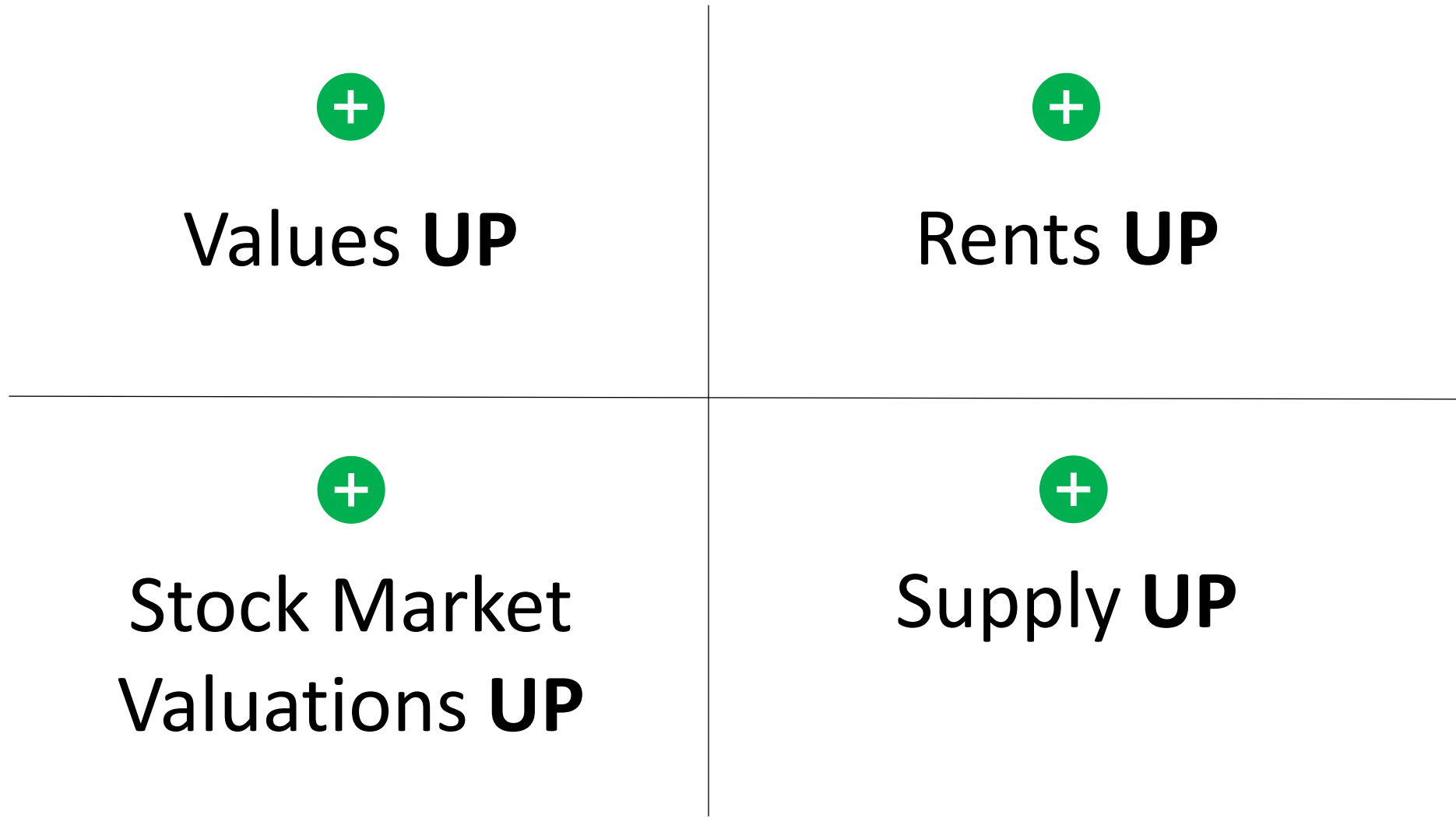


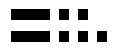


# Our Industrial Coverage



# Industrial is a Favored Asset Class by Institutional Investors





# Industrial Fundamentals Are Very Strong



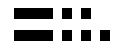
Market	% Change in FSE Rents Mar 2020 – Sep 2020	Rental Rate – Sep 2020	Vacancy – Sep 2020
Los Angeles	4.2%	\$9.77	4.0%
Inland Empire	4.1%	\$6.15	2.2%
Boston	3.8%	\$7.46	10.2%
San Diego	3.0%	\$11.63	12.5%
Bay Area	2.9%	\$10.30	6.0%
Denver	2.7%	\$7.10	5.3%
New Jersey	2.7%	\$7.35	3.5%
Philadelphia	2.5%	\$6.14	6.2%
Long Island	2.5%	\$10.36	3.4%
Orange County	2.5%	\$11.20	3.9%

Market	% Change in FSE Rents Mar 2020 – Sep 2020	Rental Rate – Sep 2020	Vacancy – Sep 2020
San Francisco	2.1%	\$11.56	3.4%
Nashville	2.1%	\$4.94	5.9%
Atlanta	1.6%	\$4.42	4.7%
Kansas City	1.6%	\$4.45	4.7%
Dallas	1.6%	\$4.51	4.9%
Chicago	1.6%	\$5.19	7.7%
Houston	0.7%	\$5.70	9.6%
South Carolina	0.7%	\$4.43	2.5%
Phoenix	-0.1%	\$7.03	7.4%
St Louis	-0.5%	\$3.95	9.1%

Source: Yardi Matrix Expert

Matrix Expert data is based upon aggregated and anonymized Yardi transaction data





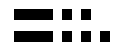
# As E-commerce Sales Continues to Increase, Warehouse Operators Are Forced to Keep Up



- In the traditional model, warehouses are used for longer-term storage. With the rise of e-commerce, warehouses have become omni-channel fulfillment centers that hold inventory for shorter periods of time
- Target and Walmart are experimenting with using space in their existing stores for warehouse and distribution. Walmart filed a patent for an automated system for storing inventory above the drop ceilings, with a fleet of robotic vehicles to ferry inventory between this attic space and the retail floor
- Consumer demand for rapid delivery will continue to spur innovative approaches to distribution, including:
  - Automated storage and retrieval systems (ASRS)
  - Drones/autonomous vehicles
  - Multistory warehouses
  - Micro distribution centers
- Demand for warehouse space is leading developers, owners and operators to rethink other real estate product types and blur traditional uses.  
Ex: Millennium Parking Garage in Chicago (3.8M SF over two floors) was recently converted into an urban fulfillment center







# Amazon Plans to Increase Fulfillment Center Square Footage by 50% in 2020



- Amazon opened **100 warehouses in September 2020**, in addition to **100 distribution facilities** and **1,000 neighborhood delivery hubs**
- Currently there is more than **100 million SF of planned space** underway

## NYC Presence Rapidly Expanding:

- 200,000 SF warehouse leased in the Bronx
- 311,796 SF leased in Brooklyn
- 364,000 SF space leased in Westchester County
- 1.2 million SF of space leased in Staten Island

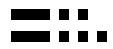
## Other New Leases:

- 155,000 SF warehouse space in Santa Clarita Valley
- 600,000 SF facility in Temple Terrace, FL, near Tampa that is expected to open next year
- 625,000 SF facility center in El Paso, TX
- 855,000 SF facility in Mt. Juliet , TN

## New Developments:

- Recently bought a 77-acre site in south Miami-Dade County for \$22 million – plans to build at least a 1 million SF distribution center





# Grocery Delivery Demand Continues



- The rapid and dramatic surge in home delivery was expected to decline as stay at home orders were reversed
- However, the data is showing that while the market has pulled back slightly there is still a large base of committed shoppers
- Amazon’s online grocery sales tripled year-over-year for the second quarter of 2020
  - Increased grocery delivery capacity by over 160% and tripled the number of grocery pickup locations

## August Scorecard: Online Grocery Delivery & Pickup

Total US – Past 30-day activity\*

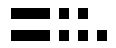
Performance Metrics	Aug 2019	March 2020	April 2020	May 2020	June 2020	Aug 2020
<b>Sales</b> (Past 30 days)	\$1.2 B	\$4.0 B	\$5.3 B	\$6.6 B	\$7.2 B	\$5.7 B
<b>Spend</b> (Average per order)	\$72	\$85	\$85	\$90	\$84	\$95
<b>Orders</b> (# Past 30 days)	16.1 M	46.9 M	62.5 M	73.5 M	85.0 M	59.5 M
<b>Customers</b> (# Active during past 30 days)	16.1 M	39.5 M	40.0 M	43.0 M	45.6 M	37.5 M
<b>Frequency</b> (Monthly average/customer)	1.0	1.2	1.6	1.7	1.9	1.6



\* Excludes online grocery orders shipped to home via common or contract parcel carriers.

Sources: Brick Meets Click/Mercatus Grocery Shopping Survey, August, June & May 2020; Brick Meets Click/Symphony RetailAI Grocery Survey, April 2020; Brick Meets Click/ShopperKit Grocery Survey, March 2020; Brick Meets Click research, August 2019.





# Approved Ballot Measures for Marijuana Are a Positive For Industrial Demand



- In the November elections, numerous states approved new ballot measures legalizing marijuana:
  - In **Arizona**, Proposition 207 legalized possession and use of up to an ounce of marijuana for adults over the age of 21 and allows individuals to grow up to plants at their residence
  - **Mississippi** passed Initiative 65, which legalized medical marijuana for qualified people with a defined medical condition
  - **Montana** passed Ballot Issue #14 I-190, this measure legalizes possession and use of marijuana for adults over 21
  - In **South Dakota**, Constitutional Amendment A and Measure 26, both dealing with marijuana passed
  - **New Jersey** passed Question 1, which legalizes cannabis use for those over the age of 21
- An increase in marijuana measures is a **positive force in industrial demand** in these states



# There is Significant Performance Variance by Lease Size Across Markets

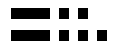
## Industrial Asset Type

Market	8-Month Change in FSE Rent > 200K SF	8-Month Change in FSE Rent <= 200K SF	Variance
Boston	32.0%	-26.7%	58.7%
Detroit	9.0%	-23.3%	32.3%
Seattle	22.8%	-8.3%	31.1%
Ft Lauderdale	28.2%	1.3%	26.9%
New Jersey	11.6%	-8.1%	19.7%
Tampa	17.6%	-0.4%	18.0%
Minneapolis	14.8%	0.2%	14.6%
Bay Area	14.9%	5.2%	9.7%
Cincinnati	7.5%	1.2%	6.3%
Miami	9.5%	5.7%	3.8%
Denver	22.6%	23.0%	-0.4%
Houston	-1.1%	2.3%	-3.4%

Market	8-Month Change in FSE Rent > 200K SF	8-Month Change in FSE Rent <= 200K SF	Variance
Sacramento	2.5%	6.5%	-4.0%
Las Vegas	-4.5%	1.4%	-5.9%
Orlando	0.7%	8.9%	-8.2%
Chicago	-7.2%	8.1%	-15.3%
Nashville	-39.8%	-24.1%	-15.7%
Kansas City	-26.2%	-8.0%	-18.2%
Atlanta	-30.2%	-9.4%	-20.8%
San Diego	-27.7%	-5.7%	-22.0%
Philadelphia	-18.0%	22.4%	-40.4%
Brooklyn	-	-0.8%	-
Dallas	-	-0.2%	-

\*8-Month Change = March 1, 2020 vs. October 1, 2020

Source: Yardi Matrix



# Industrial Isn't Only E-Commerce, Backbone is General Goods and Small Business Manufacturing



	<b>Multi-Tenant</b>	<b>Owner Occupied</b>	<b>Single Tenant</b>
<b>NATIONAL</b>	<b>43.6%</b>	<b>37.0%</b>	<b>19.4%</b>

Market	Multi-Tenant %	Owner Occupied %	Single Tenant %
Fort Lauderdale	71.5%	17.1%	11.5%
Las Vegas	69.1%	16.6%	14.3%
Miami	63.6%	22.9%	13.5%
San Diego	57.8%	24.9%	17.3%
New Jersey	53.2%	27.3%	19.5%
Sacramento	50.9%	27.7%	21.4%
Orange County	50.1%	30.9%	19.0%
San Francisco	48.2%	28.0%	23.8%
Orlando	45.9%	37.1%	17.0%
Los Angeles	45.3%	33.3%	21.4%
Denver	45.1%	37.9%	17.0%
Austin	44.6%	38.8%	16.6%
Bay Area	44.5%	32.3%	23.2%
Atlanta	42.6%	29.3%	28.1%
Pittsburgh	42.5%	47.4%	10.1%

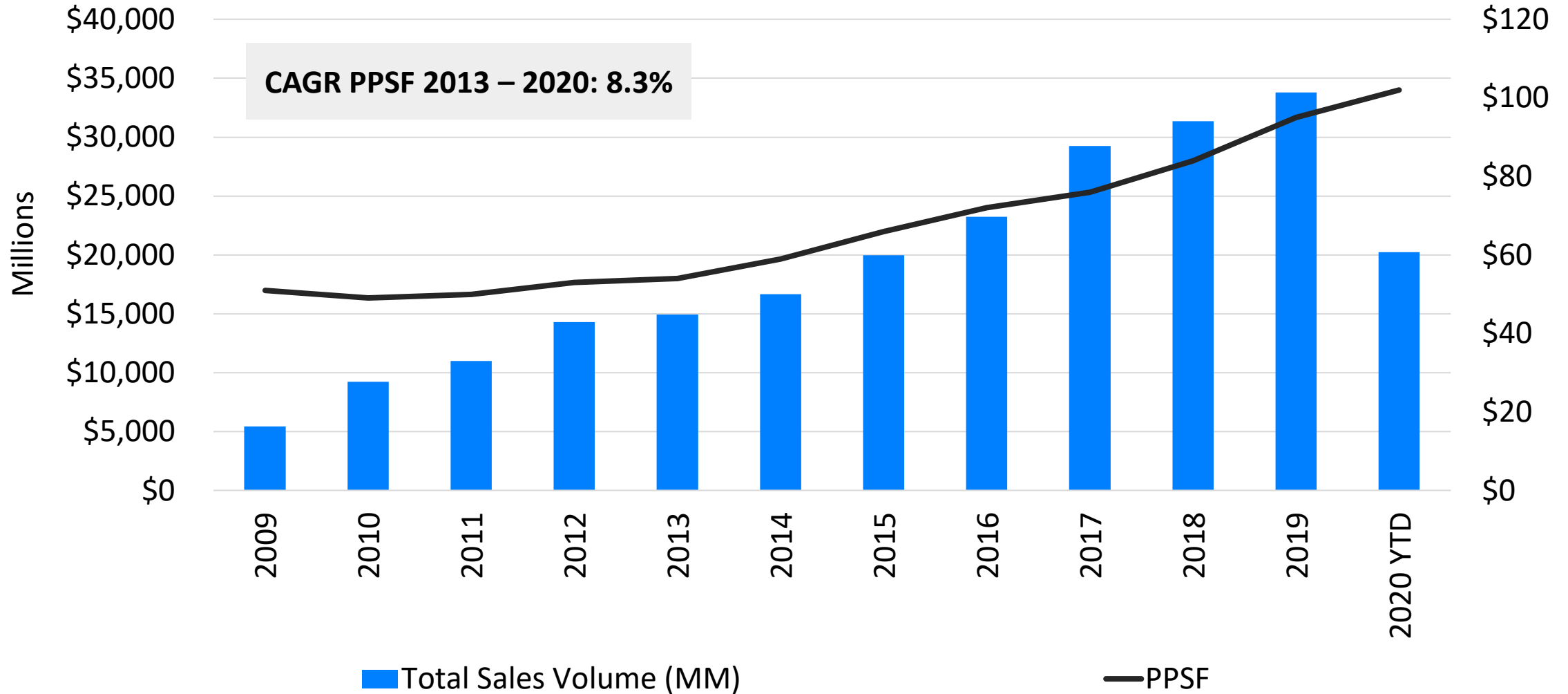
Market	Multi-Tenant %	Owner Occupied %	Single Tenant %
Seattle	42.5%	39.8%	17.7%
Phoenix	42.1%	38.8%	19.2%
Philadelphia	41.2%	41.6%	17.3%
Dallas-Fort Worth	41.2%	35.5%	23.4%
Houston	39.4%	44.5%	16.1%
Minneapolis	37.8%	46.3%	15.9%
Chicago	37.1%	42.4%	20.5%
Tampa	36.2%	47.8%	16.0%
Boston	34.3%	44.6%	21.1%
Kansas City	34.0%	43.5%	22.4%
Cleveland	32.7%	52.5%	14.8%
Nashville	32.7%	43.9%	23.5%
Inland Empire	32.1%	26.1%	41.8%
St. Louis	31.5%	45.7%	22.8%
Detroit	18.0%	66.4%	15.6%

Source: Yardi Matrix





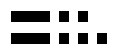
# Industrial Sales Volume Has Declined, But PPSF Actually Increased in 2020



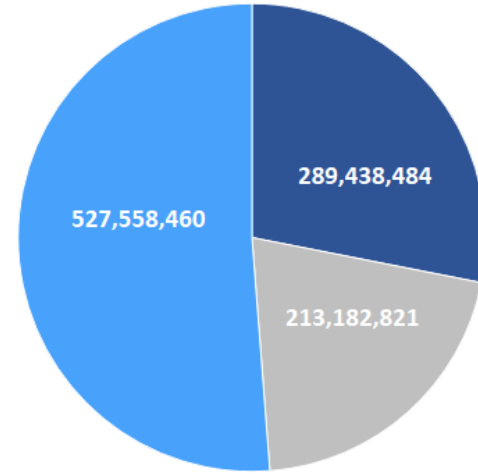
CAGR PPSF 2013 – 2020: 8.3%

■ Total Sales Volume (MM)

— PPSF



# Where is Future Industrial Supply Concentrated?



NATIONAL		
UC as a % of Existing Stock	Planned as a % of Existing Stock	Prospective as a % of Existing Stock
2.6%	3.1%	6.2%

■ Under Construction Sq. Ft.

■ Planned Sq. Ft.

■ Prospective Sq. Ft.

Market	Sq. Ft. UC (MM)	UC as a % of Existing Stock	Market	Sq. Ft. Planned (MM)	Planned as a % of Existing Stock	Market	Sq. Ft. Prospective (MM)	Prospective as a % of Existing Stock
Austin	9.8	12.4%	SW Florida Coast	6.2	23.8%	Inland Empire	103.1	18.5%
N Central Florida	1.9	6.7%	Long Island	8.2	10.7%	Tampa	22.4	16.8%
Denver	11.8	6.5%	Orlando	7.3	7.8%	Charleston	38.9	15.4%
Phoenix	13.3	5.5%	Las Vegas	5.6	7.1%	Denver	21.1	11.6%
Las Vegas	4.0	5.0%	Charleston	14.8	5.9%	Jacksonville	8.8	10.6%
Allentown-Bethlehem	4.2	5.0%	Columbus	12.8	5.8%	Phoenix	24.6	10.2%
Queens	1.6	4.1%	Phoenix	13.6	5.6%	Sacramento	8.4	8.8%
Kansas City	6.4	4.0%	N Central Florida	1.5	5.3%	Chicago	57.6	8.3%
West Palm Beach	0.7	3.8%	North Dallas	36.5	5.3%	Kansas City	12.8	8.1%
North Dallas	25.5	3.7%	Seattle	11.8	5.3%	Columbus	17.4	7.9%

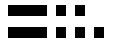


\*Data as of October 2020

Source: Yardi Matrix







# In Summary



- Industrial real estate is the “darling” asset class of the commercial real estate industry – rents up, vacancy flat, values rising
- E-commerce has been on the rise for years – the pandemic rapidly accelerate the trend which has been a huge driver of demand for the industry
- **One thing to watch:** Industrial does have a lot of small businesses that are vulnerable, but they don’t seem to be a big part of the rent roll

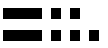




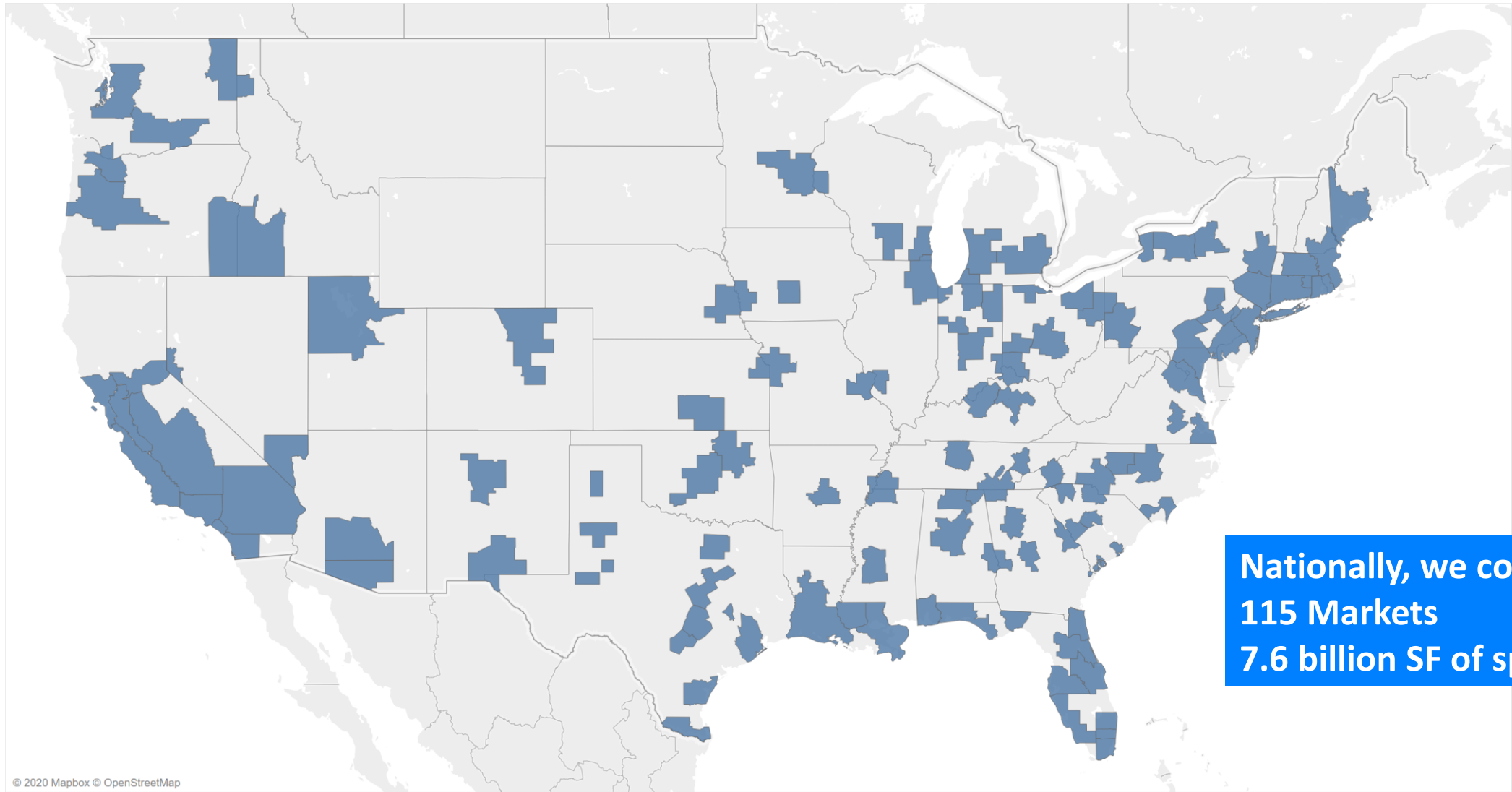
# Office Fundamentals

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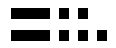


# Our Office Coverage



Nationally, we cover...  
115 Markets  
7.6 billion SF of space

© 2020 Mapbox © OpenStreetMap



# Office is in For a Long Slog



Rents **Flat**

Vacancy **Flat**



Stock Market  
Valuations **Down**

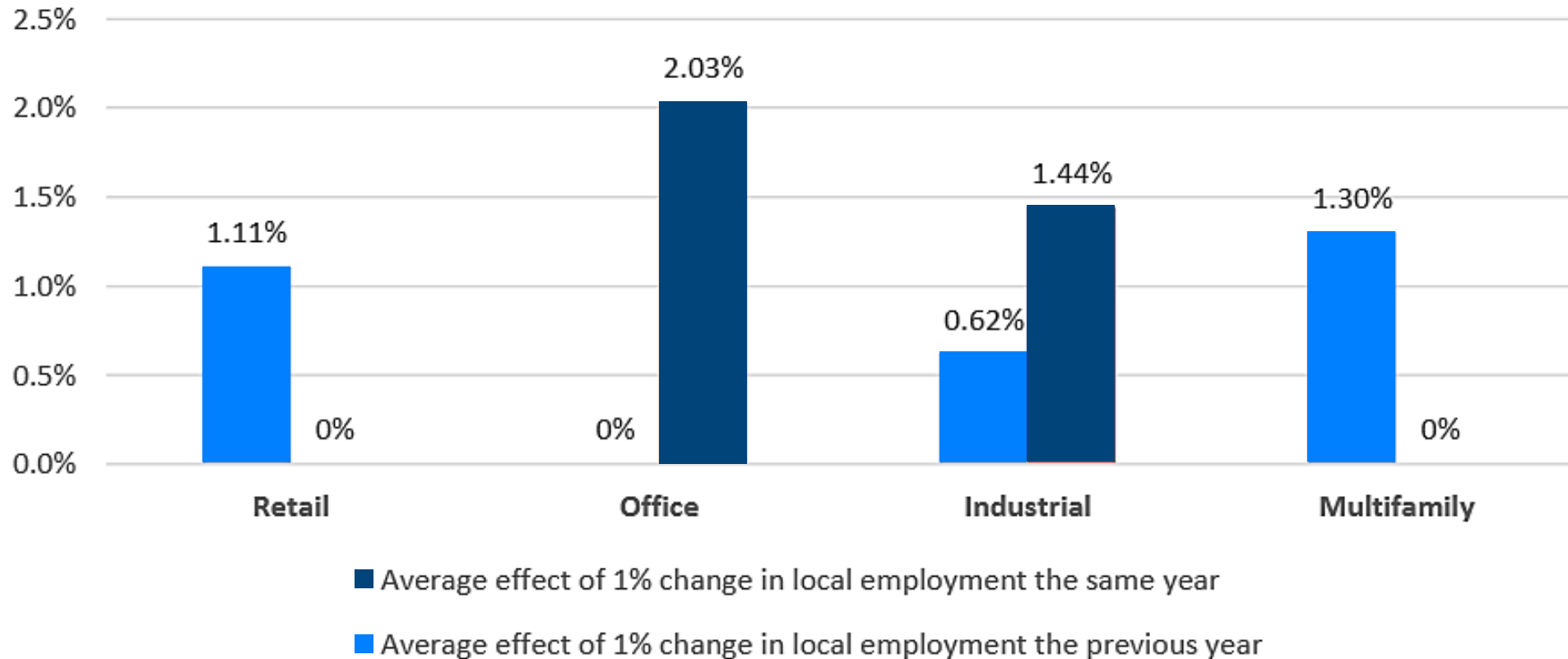


Collections are **OK**



# Since Office Is a Long Lease Asset Class, Meaningful Trends In The Data Will Lag GDP & Employment

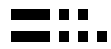
Effect of Change in Local Employment on NOI per Square Foot (psf)



All numbers displayed are statistically significant at a 5% level. Numbers not significantly different from zero at a 5% level are displayed as 0 in the table

\*Analysis is based on a study of the historical sensitivity of property net operating income (NOI) to historical changes in employment levels

Source: Yardi Matrix; PREA Research analysis based on data from MSCI and U.S. Bureau of Labor Statistics



# COVID-Era Office Fundamentals



Market	8-Month Change in FSE Asking Rents	8-Month Change in Vacancy Rate	October FSE Rent	October Vacancy Rate	Market	8-Month Change in FSE Asking Rents	8-Month Change in Vacancy Rate	October FSE Rent	October Vacancy Rate
San Francisco	-7.8%	2.9%	\$65.8	10.1%	Philadelphia	0.9%	1.1%	\$29.0	12.6%
Inland Empire	-4.5%	0.8%	\$22.0	8.8%	Orlando	0.9%	1.2%	\$21.5	13.4%
Chicago	-3.4%	0.3%	\$27.9	14.5%	Los Angeles	1.1%	1.2%	\$39.5	12.7%
Seattle	-2.6%	1.9%	\$35.8	9.8%	Boston	1.1%	1.1%	\$34.9	10.5%
Tampa	-2.5%	0.5%	\$27.0	11.3%	Denver	1.8%	1.4%	\$28.7	13.2%
Portland	-2.3%	0.1%	\$29.4	12.5%	Phoenix	2.0%	-0.5%	\$27.4	16.4%
Houston	-2.2%	0.8%	\$29.7	21.3%	Washington DC	2.2%	0.3%	\$40.5	14.9%
Brooklyn	-1.9%	1.4%	\$51.0	13.5%	Miami	2.3%	1.1%	\$42.4	13.6%
Charlotte	-1.8%	-1.0%	\$28.7	9.7%	Austin	2.4%	1.9%	\$42.5	10.7%
Dallas	-1.2%	-0.4%	\$27.7	17.6%	New Jersey	3.2%	-2.9%	\$32.9	17.2%
Minneapolis	-0.6%	0.4%	\$27.0	11.3%	Nashville	3.6%	2.8%	\$32.1	14.3%
Atlanta	0.4%	1.0%	\$27.1	16.9%	Bay Area	5.7%	0.3%	\$54.9	12.6%
Manhattan	0.5%	1.7%	\$86.8	9.5%	San Diego	7.9%	0.5%	\$42.2	11.9%

\*8-Month Change = March 1, 2020 vs. October 1, 2020

\*FSE Rents & Vacancy as of October 1, 2020

Source: Yardi Matrix



# There is Significant Performance Variance by Size of Lease

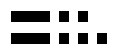
## Office Asset Type

Market	8-Month Change in FSE Rent > 100K SF	8-Month Change in FSE Rent <= 100K SF	Variance
San Diego	13.9%	-3.9%	17.8%
New Jersey	4.5%	-1.8%	6.3%
Charlotte	-1.5%	-5.8%	4.3%
Manhattan	1.3%	-2.8%	4.1%
Phoenix	3.1%	0.1%	3.0%
Philadelphia	1.9%	-0.9%	2.8%
Nashville	3.1%	0.4%	2.7%
Seattle	-1.1%	-2.2%	1.1%
Washington DC	3.5%	2.6%	0.9%
Minneapolis	-0.5%	-1.3%	0.8%
Austin	2.2%	1.7%	0.5%
Los Angeles	1.2%	1.1%	0.1%
Miami	1.4%	2.1%	-0.7%

Market	8-Month Change in FSE Rent > 100K SF	8-Month Change in FSE Rent <= 100K SF	Variance
Portland	-2.8%	-1.4%	-1.4%
Tampa	-1.5%	0.1%	-1.6%
Atlanta	0.1%	1.8%	-1.7%
Dallas	-1.4%	0.4%	-1.8%
Denver	1.4%	3.5%	-2.1%
Orlando	0.2%	2.5%	-2.3%
Boston	-0.7%	1.7%	-2.4%
Chicago	-3.2%	-0.7%	-2.5%
Houston	-2.3%	1.4%	-3.7%
Brooklyn	-2.2%	2.7%	-4.9%
Bay Area	4.5%	10.0%	-5.5%
Inland Empire	-9.1%	-3.4%	-5.7%
San Francisco	-10.8%	1.1%	-11.9%

\*8-Month Change = March 1, 2020 vs. October 1, 2020

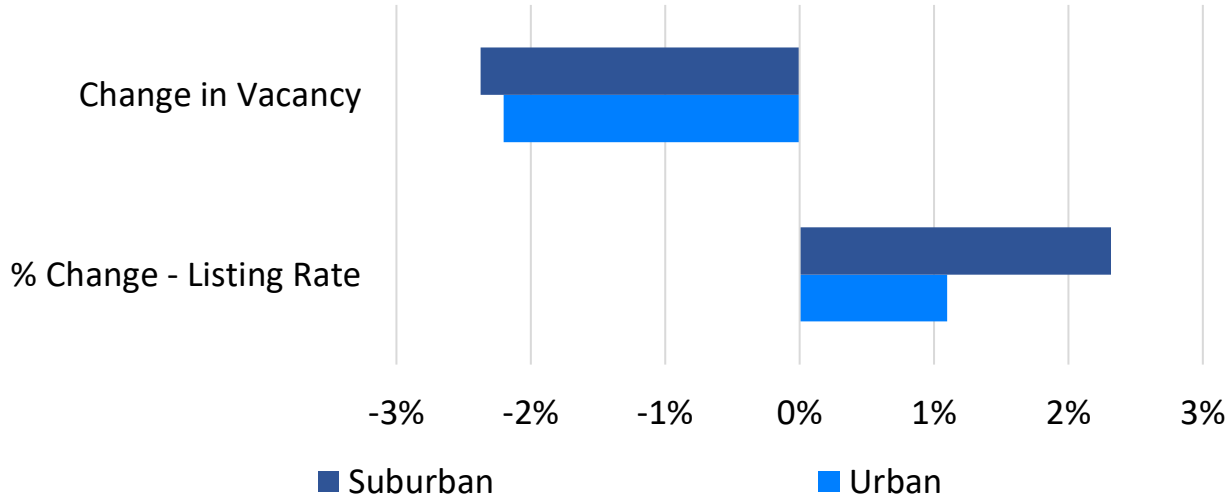
Source: Yardi Matrix



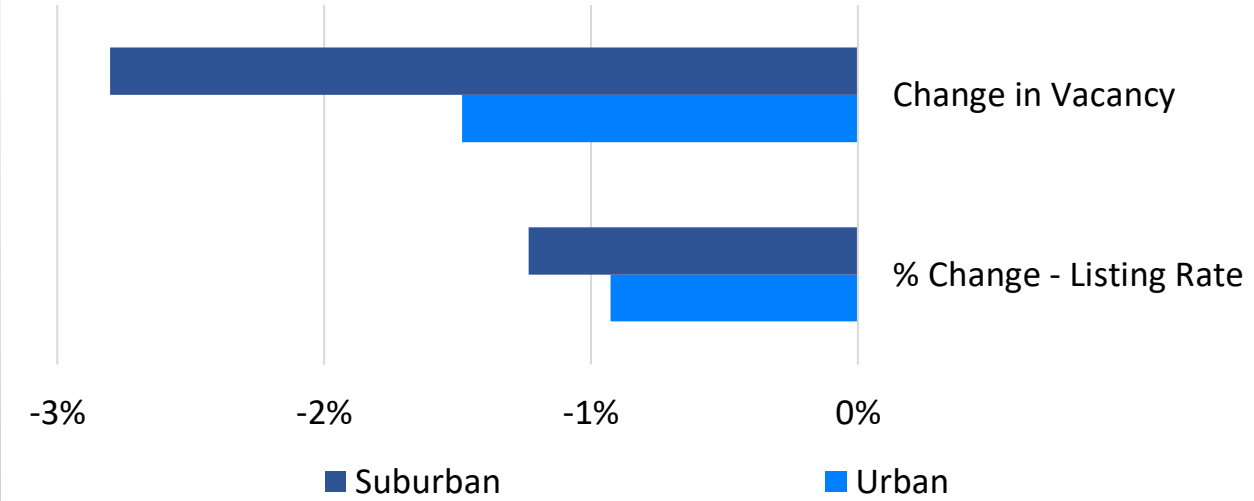
# There Hasn't Been a Big Move in Vacancy...Yet



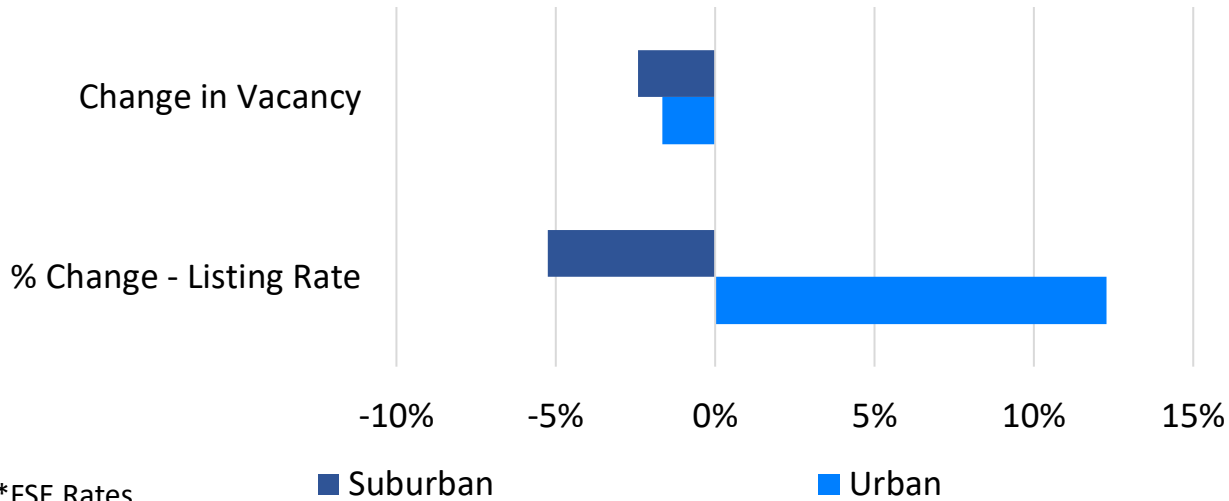
### Bay Area: March 2020 - September 2020



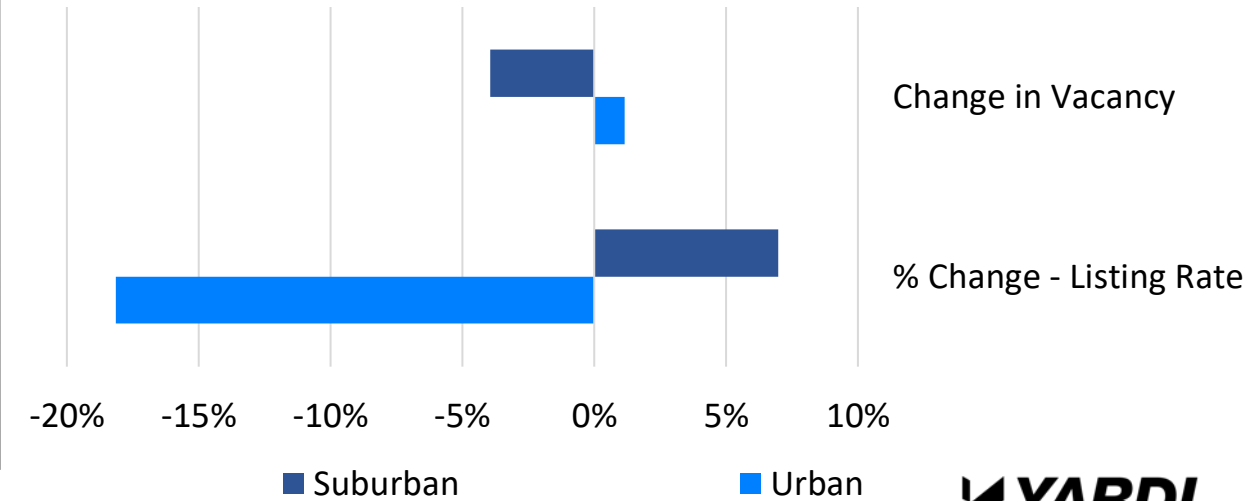
### Chicago: March 2020 - September 2020



### Boston: March 2020 - September 2020



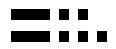
### San Francisco: March 2020 - September 2020



\*FSE Rates  
Source: Yardi Matrix



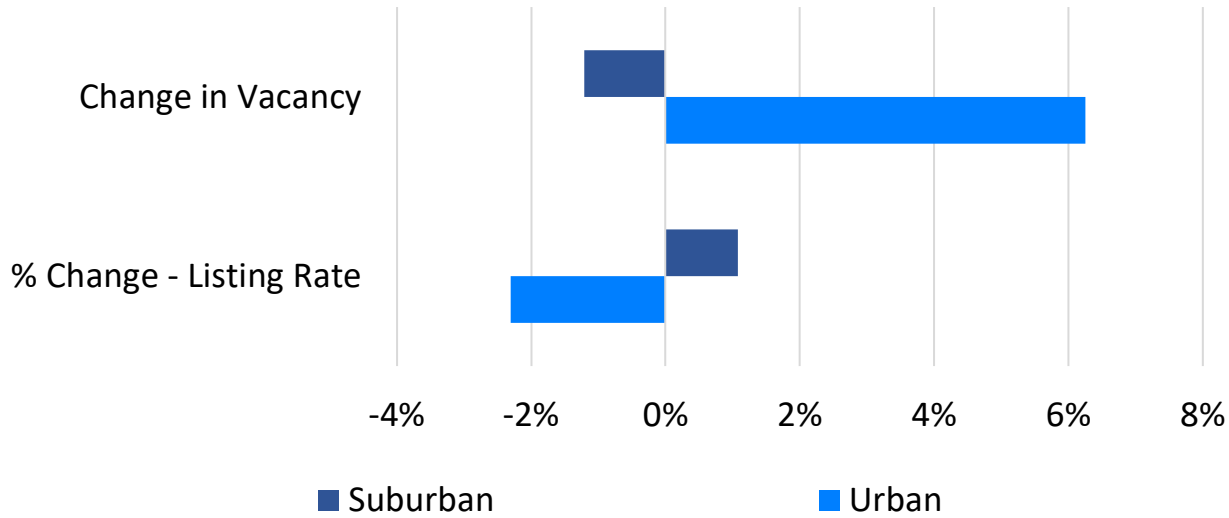




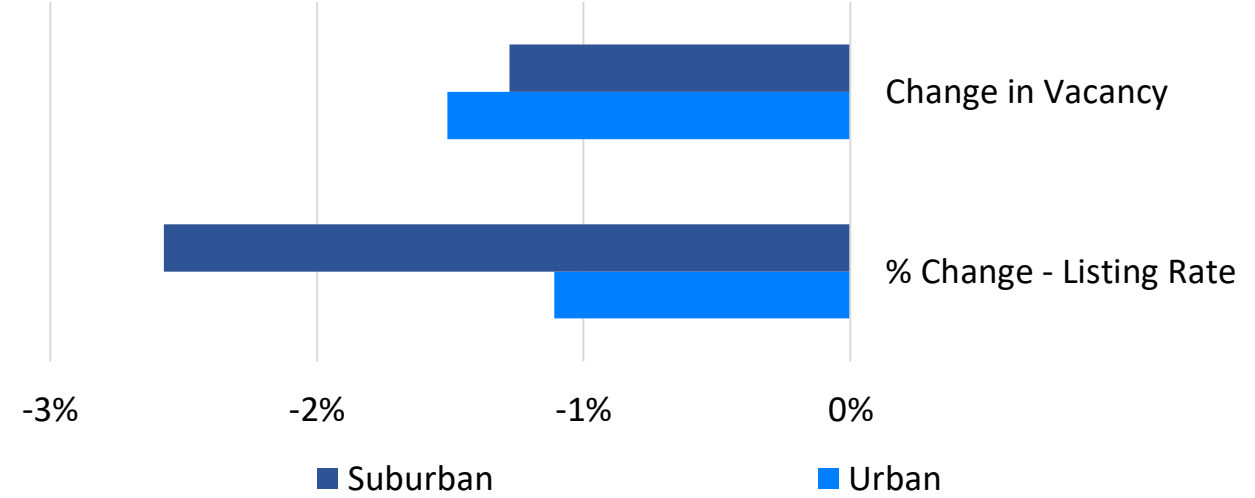
# It's a Mixed Bag in Tech Hub Markets



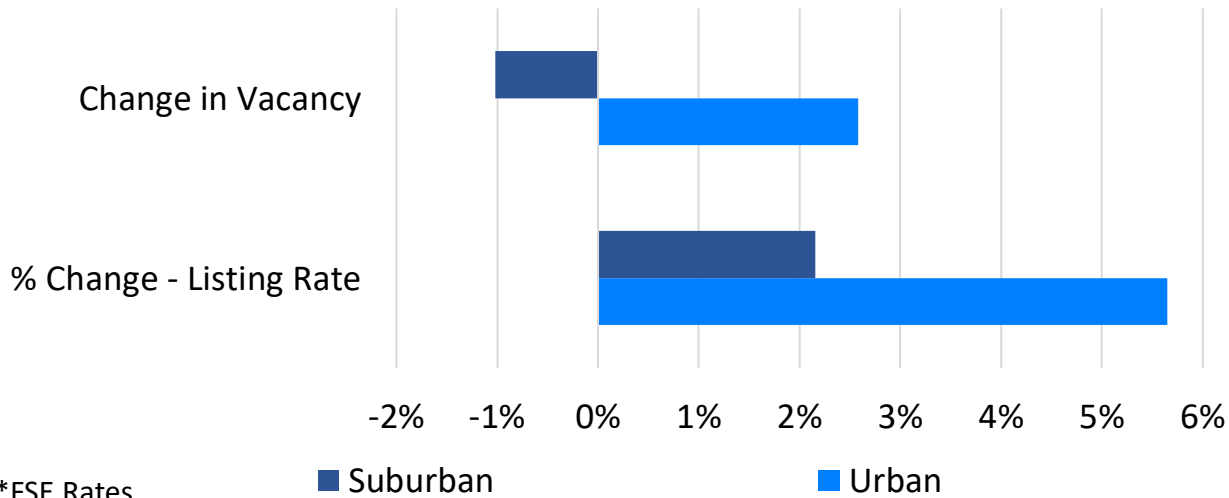
### Austin: March 2020 - September 2020



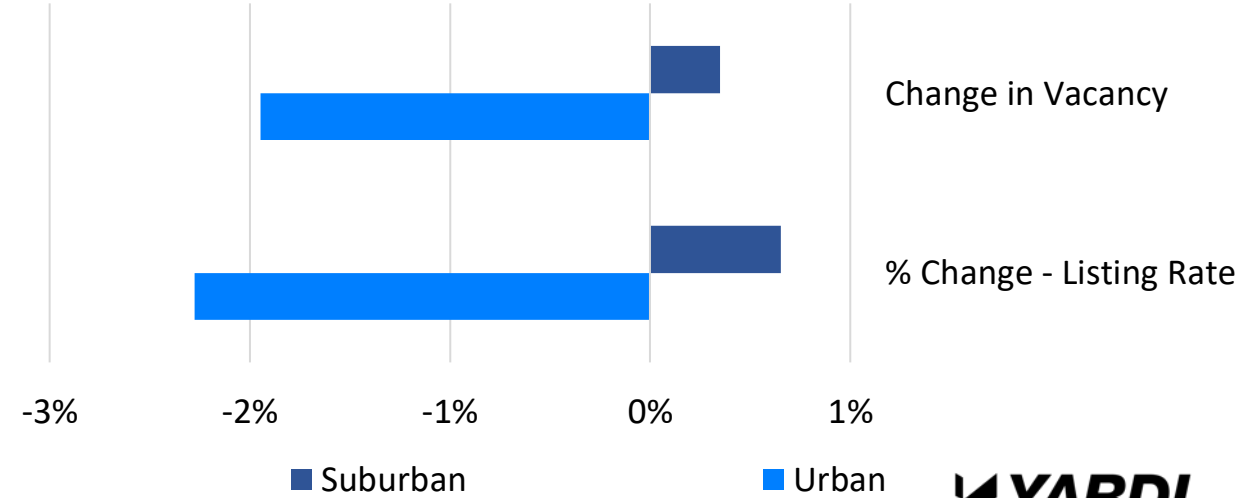
### Dallas: March 2020 - September 2020



### Raleigh-Durham: March 2020 - September 2020



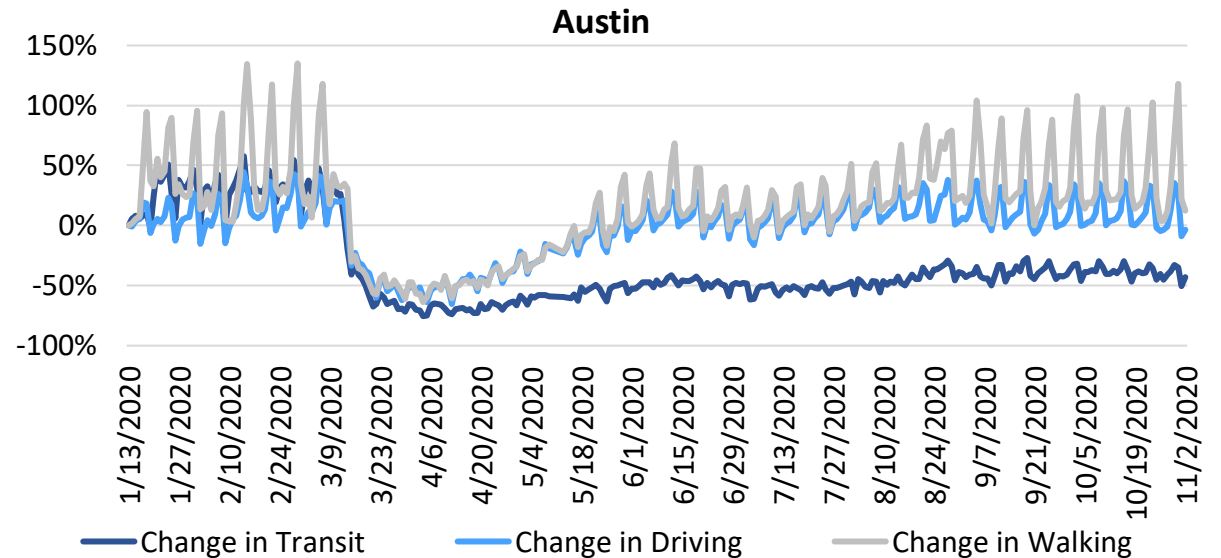
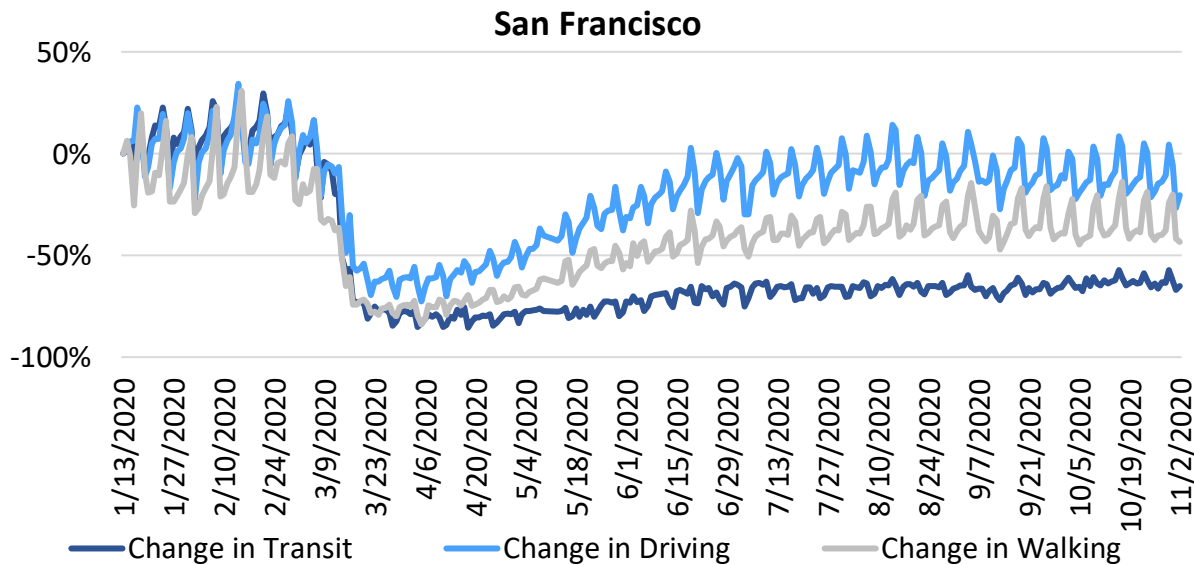
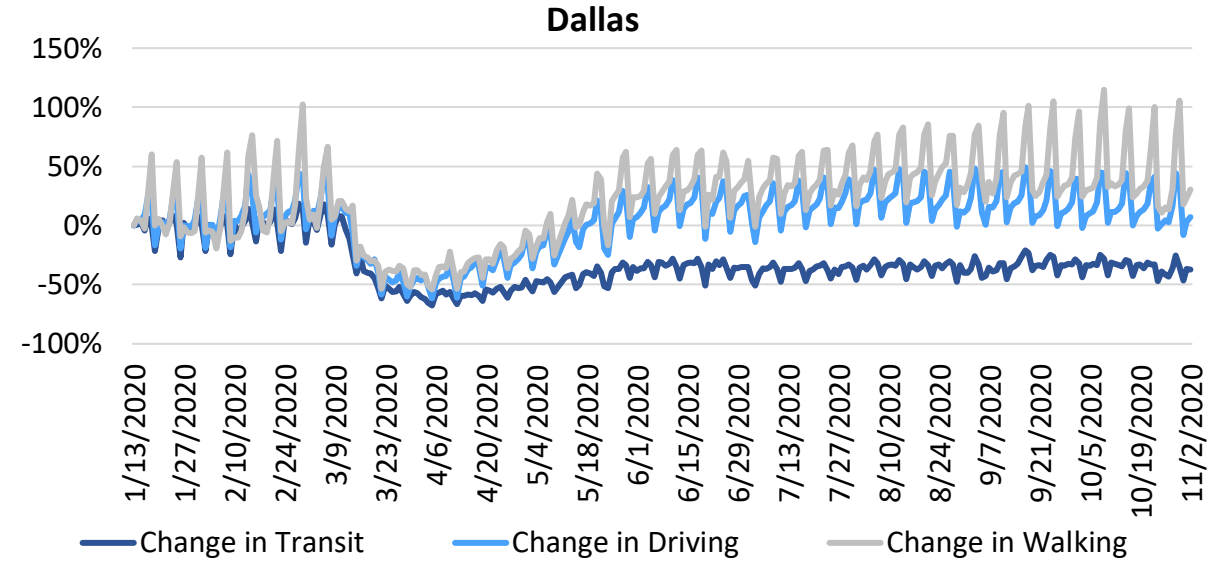
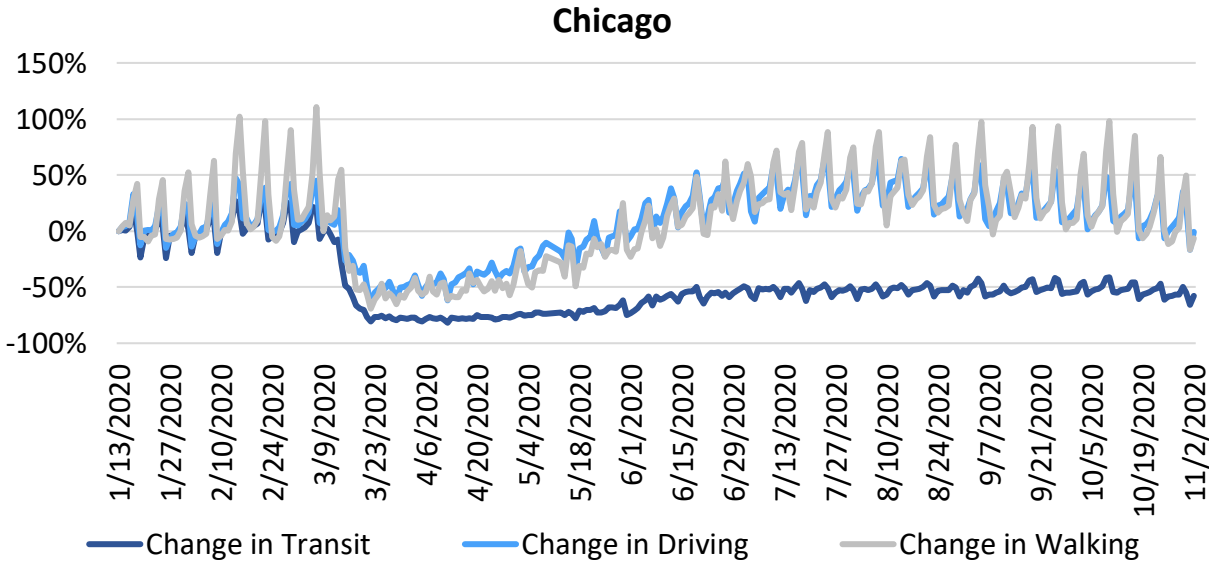
### Atlanta: March 2020 - September 2020



\*FSE Rates  
Source: Yardi Matrix



# Transit Use Still Down in Both Gateway & Tech Hub Markets



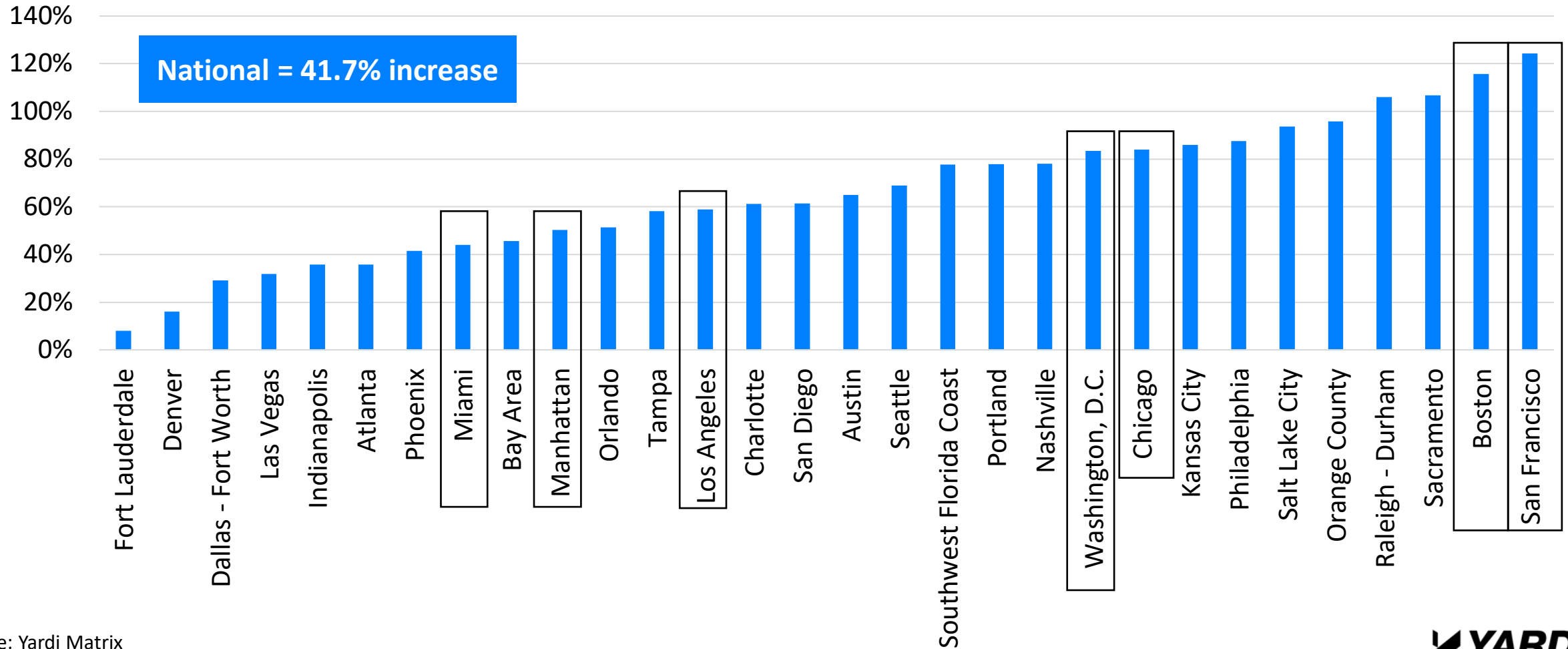
# Office Data Does Not Give the Full Story, Need to Look Beneath the Surface

- Due to the long-term nature of office leases, the effects of the pandemic are not yet seen in the fundamentals, impacts are expected in future data
- Office performance usually lags economic and GDP trends
- On the surface, nothing appears to have really changed
  - Tenants continue to pay
  - Rental rates and vacancy have not dramatically changed
  - Construction and delivery of new supply continues
  - However, a lot is happening below the surface, which will likely contribute to how tenants approach office space and see its role in the nature of work



# Gateway Markets Have Seen a Large Increase in Subleasing Space

% Change in Sublease Space: April 2020 - November 2020



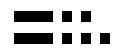
National = 41.7% increase

# COVID-19 Has Created Unexpected Effects on Office Properties

## Non-Core Income Has Been Affected

- Parking fees
- Studio service fees – dried up as film and TV studios have been put on hold
- Retail income from the retail components in high-rise office buildings





# Takeaways From Office REIT Earnings Calls



## Key takeaways:

- Retail and parking are dragging down operating metrics for REITs
- Most of the writedowns taking place are on the retail side
- Most and largest concessions are being offered to retail tenants
- Without retail components, some office REITs would have reported NOI **growth**
- Most REITs are bearish on retail component until second half of 2021 at the earliest, if not later
- Highwood is performing much better than gateway office REITs

### SL Green – **Stock down 49%** since March 1

- Worked with most impacted retail tenants, working out arrangements to provide deferrals and concessions to help them

### Boston Properties – **Stock down 48%** since March 1

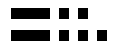
- Many retail tenants have reopened with volume restrictions, but traffic is subdued, and many food service and other amenities still remain closed
- The \$10 million of tenant write-offs this quarter were substantially less than last quarter, and were focused on retail clients
- Hotel and parking are unlikely to improve materially relative to where they were in 2019 in the first half of 2021

### Vornado – **Stock down 46%** since March 1

- 95% of office rents collected in Q3 (97% including deferrals), 82% of retail collections (85% including deferrals), 93% combined (95% including deferrals)
- New York segment's third-quarter cash basis same-store NOI was down 9%
- Growing retail vacancies, combined with the life of tenants in the market, will continue to put downward pressure on retail rents

### Highwood – **Stock down 40%** since March 1

- No mention of retail, but same store NOI is up 2.2%, in-place cash rents are up 5.2% year-over-year
- Rent deferrals are significantly lower than Manhattan-based REITs

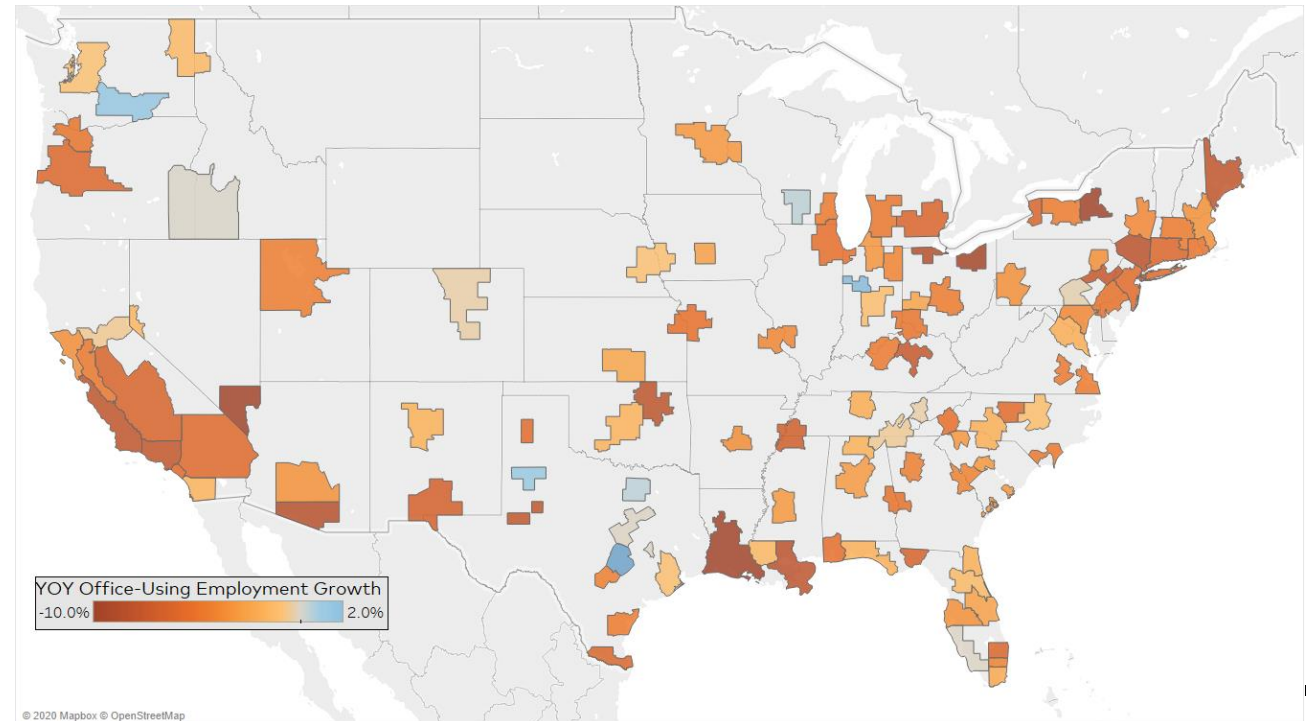


# Employment in Office-Using Sectors is Recovering



- Employment in Information, Financial Activities and Professional and Business Services is recovering modestly since April when 2.7 million jobs were lost
- In the subsequent five months, those sectors averaged 207,000 new jobs per month
- Office-using sectors have outperformed overall job growth for years, a trend that has continued during the pandemic
- In September, office-using employment was down 4.8% year-over-year, whereas the labor market as a whole was down 6.4%
- **However, with most people still working from home, this does not directly translate to office demand as it once did**
- This does indicate, though, that once there is a vaccine and people feel safe going to work, that the office industry may recover quicker than other industries

## Office-Using Employment Growth



\*As of September 2020

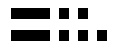
Source: Yardi Matrix; Bureau of Labor Statistics; Moody's Analytics

# ☰☰☰ Tech Tenants Continue to Be Biggest Force in Office Leasing ☰☰

- The tech industry is expected to play an important role in rebuilding the economy
- **From 2010 to 2019, 1.5 million technology jobs were created, while in 2020, only 58,000 have been lost**
- **Markets with a heavy technology presence have been resilient through the downturn and are poised for post-pandemic growth**, the latest CBRE annual Tech-30 report notes
- Despite 58,000 job losses and a sharp rise in sublease rates since the COVID-19 crisis began, the tech industry is expected to play a key role as the economy rebuilds
- Before the pandemic, **the technology sector was the biggest force in office-leasing activity in North America, with office rents increasing in all but one of the Top 30 tech markets in the past two years, including five that posted double-digit percentage gains**







# EY and ULI Global Survey Finds The Future of Work Will Be More Remote, Digital and Flexible

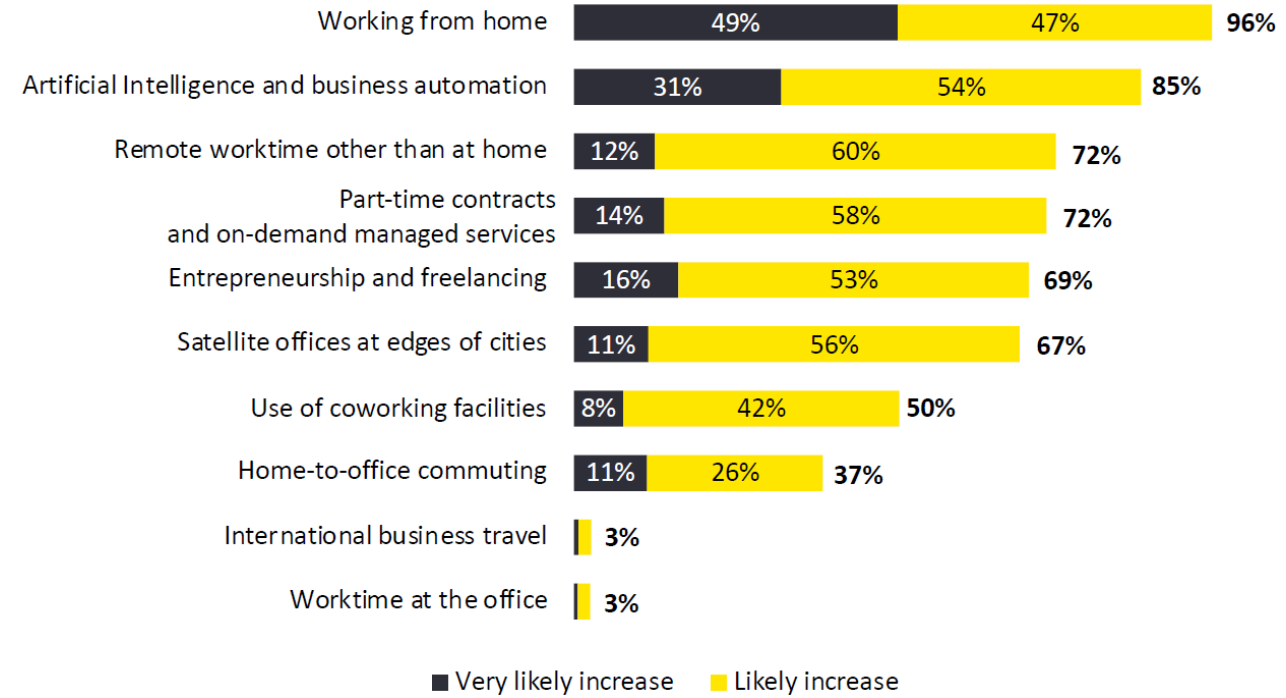


- Respondents see the Future of Work (FoW) as more **remote** (96%), **digital** (85%), **on-demand** (72%) and **self-employed** (69%)
- 85% expect artificial intelligence and business automation to increase and make the FoW more digital
- **Remote work is expected to grow** from 20% of employees being offered 20% remote working time to at least 60% of employees spending 40%+ of their time remotely

## There will be major changes in office real estate

- **Agility:** large corporate users will look for a more tailored and flexible office footprint (96%)
- **Technology:** respondents anticipate increased IT costs (80%) in parallel with the reduction of cost
- **Flexibilization:** 66% of the respondents think flexible lease contracts will become the new normal
- **Space:** 53% of real estate players expect a space reduction as a result of changing working patterns

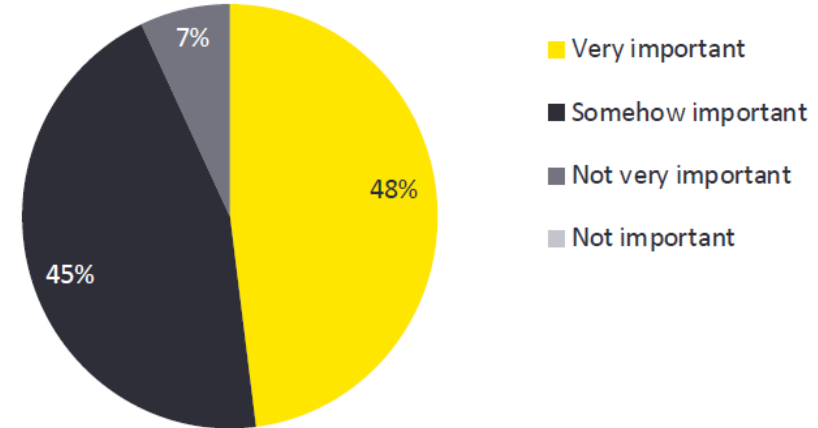
## What will the Future of Work look like in the next 3 to 5 period, compared to pre-COVID?



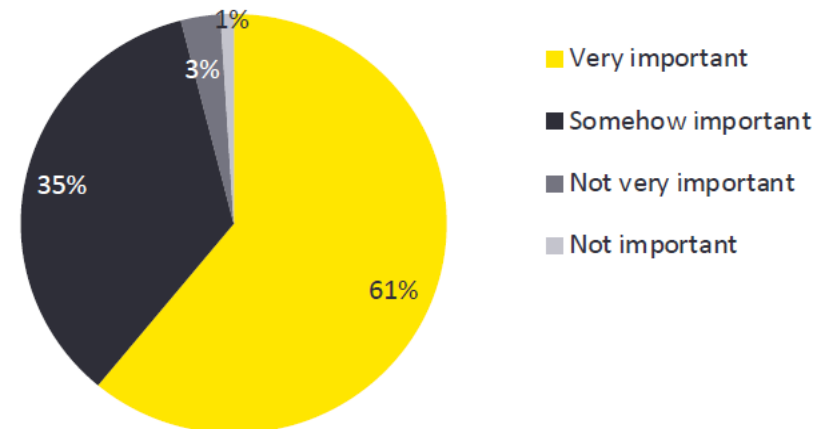
# However, Remote Work Makes Real Estate More Critical

- Challenges with remote work: the loss of corporate culture (78%), less effective talent management (68%), higher staff turnover (56%) and loss of creativity and innovation (55%)
- Office space quality will play a key role in creating a corporate culture (96%) and recruiting and retaining employees (93%)
- The FoW will require a full ecosystem of places to carry out the work, including the home, satellite/flexible workspaces at edges of cities, third places, and a key role for central/HQ locations

How important is office space to attract and retain employees in a post-COVID-19 environment?



How important is office space to create a strong corporate culture in the post-COVID-19 environment?



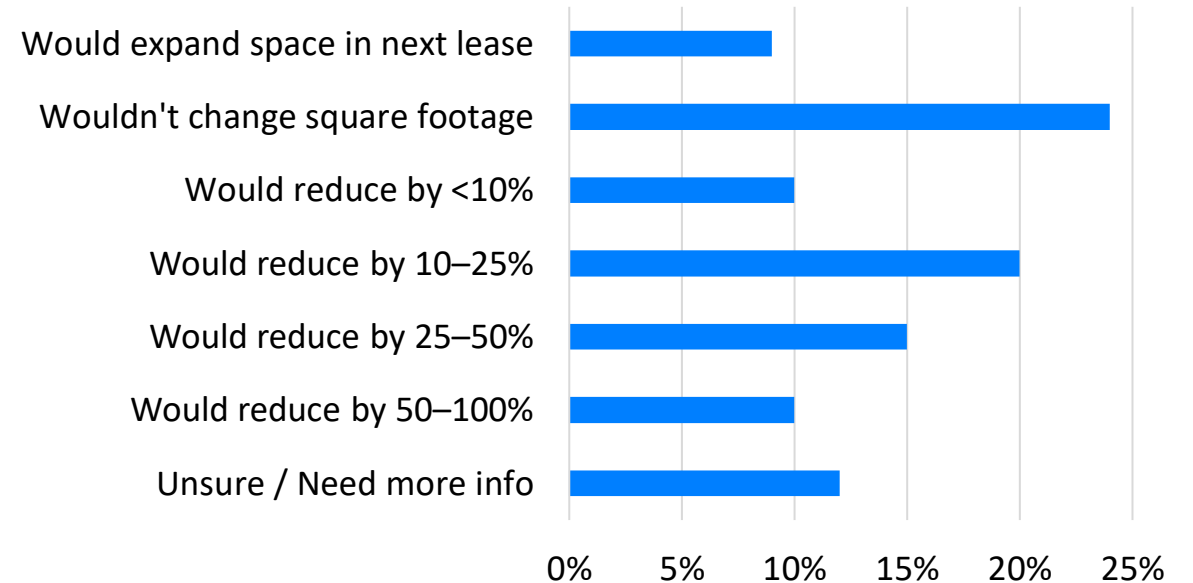
# BOMA, Yardi and Brightline Survey Finds In-Person Office Space is Vital to Conducting a Successful Operation

## As a response to the COVID-19 health crisis

- Nearly 52% have, or are considering, shifting square footage to coworking or work-share environments
- 49% have subleased space they no longer need
- 63% have, or are considering, renewing current office space, but with new clauses and protections in the lease
- **More tenants today are likely to reassess their space needs, but this doesn't equal a corresponding jump in likelihood to reduce space**

Question: Based on your experience with staff reductions, teleworking and/or other business impacts during the coronavirus public health emergency—whether or not you stay in your current property—to what extent would you plan to change the total square footage of your space?

## Planned Space Expansion / Reduction



## Extent of Space Reduction by SF Segment

All	1,000-5,000 SF	5,000-10,000 SF	10,000-20,000 SF	25,000-50,000 SF	>50,000 SF
43%	30%	48%	55%	56%	43%

# ☰ Phases of Approaching Office Space Since Pandemic Start ☷

## FIRST STAGE

- The initial shock that everyone is working remotely at the start of the COVID-19 health crisis

## SECOND STAGE

- The idea that maybe everyone will move to working in satellite offices or use a “hub-and-spoke” model

## THIRD STAGE

- Working from home is the default workplace and employees need a reason to come into the office
- Came to the realization that it is hard to onboard and train new employees, as well as build company culture, without a designated office space

## FOURTH STAGE

- The fourth stage of thinking about office space is yet to be known, but we acknowledge the approach to office will continue to evolve ☷



# Working From Home: What's Happening?



- Accelerated by the pandemic, **the work from home revolution has fundamentally changed where home base is for employees**
- Companies have realized working from home does not necessarily mean less productivity and are rethinking the concept of requiring employees to work in the office five days a week
  - **Over 94% of respondents to ULI's Emerging Trends survey agree that in the future more companies will allow more employees to work remotely**
- **Future of work could look like a “consultant” flexible job schedule — for example, in a central workplace for meetings 3 days a week and working from home 2 days a week**
- Companies and individuals will have to be far more intentional about the use of office space, in terms of both scheduling and layout
- **Timing of the return to offices will vary by market, with cities with a higher dependence on transit will return to offices at a slower pace**
- **Hub & spoke model has been mostly rejected** — model does not make sense as the purpose of office is to get people together, which doesn't work with numerous small offices



# ≡:::The Evolution of Office Space & its Purpose Amid the Pandemic :::

## **INTENTIONAL AND PURPOSEFUL USE OF OFFICE SPACE**

- More focus on the existential purpose of the office, rather than just having to show up each day
- As working practices evolve, office space is becoming more of a resource
- Much greater focus on the office as a place for social interactions and experiences

## **CONTINUED NEED FOR OFFICE SPACE**

- As office using employment comes back people will still need office space, but possibly in a reduced footprint
- In-person workplaces are crucial for company culture, innovation, onboarding of new employees and training

## **MORE COLLABORATION-ORIENTED CONFIGURATIONS**

- Organizations will re-balance space allocation away from individual desks and offices to more collaborative and social space
- People will go into the office for human experience, which working remotely cannot offer

## **OFFICE WILL BE FOCUSED ON THE WORKING EXPERIENCE**

- Office space will adopt the experience-focused qualities of retail
- Focus will be on the experience to help magnetize the office and entice employees to want to come back into the space
- Quality over quantity

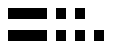
# ≡∴ Coworking Operators That Rapidly Expanded Facing More Problems Than Operators Who Grew Conservatively ∴

## WEWORK

- **WeWork saw at least 81,000 memberships cancelled in Q2 alone (approx. 12% of Q1 2020 membership base),** *Business Insider* reports
- **Attempting to reach profitability by 2021, WeWork recently cut its global workforce by 8,000 and renegotiated leases with landlords,** however, Fitch Ratings warns they are still at a risk of default on long-term debt
- In October, **WeWork sent letters to demand payment from 800 of its members, most of which were companies with fewer than 50 employees,** and threatened to send the outstanding bills to collection agencies or arbitration
  - *WeWork's designation as a membership organization rather than a landlord exempts it from having to follow eviction moratoriums which are still in place in some areas for commercial tenants*
- **Recently, WeWork reported they sold 13 times more "All Access" passes and 4 times more single desk bookings in September than August**

## INTERNATIONAL WORKPLACE GROUP (IWG)

- IWG, which runs the Regus brand globally, **reported a more than \$300M loss during the first half of 2020**
- This summer, **7 Regus affiliates sought Chapter 11 protection, citing a combined \$1.15M in rent owed on U.S. leases,** and has since threatened to dump more leases into bankruptcy unless landlords reduce rents



# With All of The Changes to the Office Environment, Supply Is Still Coming



- As office-using employment comes back, office footprint is likely not that different than today
- Projects that were underway prior to the pandemic continue to be delivered, since most construction was exempt from initial stay-at-home orders
- With 223.1 million SF under construction nationally, this portion of the pipeline has actually increased by 3.8% since the beginning of the year, however we expect this number to decline for the foreseeable future
- It is noteworthy that the total amount of planned stock has increased, as well, by 19.6% this year to 295.2 million SF
- Once companies feel it is safe to open offices to their employees, there may be a large backlog of projects on which developers will be looking to break ground

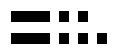
**Supply Pipeline (by asset class and location)**

National Market	Under Construction	Under Construction % of Stock	Plus Planned % Stock
A+/A	206,241,316	5.9%	6.2%
B	14,112,097	0.4%	0.4%
C	0	0.0%	0.0%
CBD	42,521,549	3.0%	5.5%
Urban	97,532,322	6.3%	13.4%
Suburban	83,756,404	1.8%	5.0%

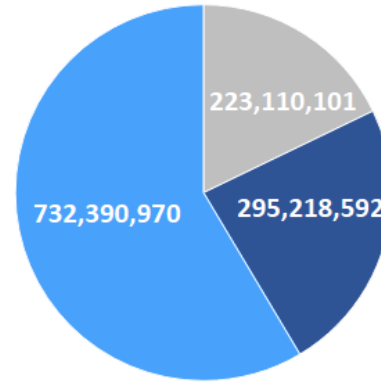
\*As of October 2020, includes owner-occupied properties

Source: Yardi Matrix





# Where is Future Office Supply Concentrated?



NATIONAL		
UC as a % of Existing Stock	Planned as a % of Existing Stock	Prospective as a % of Existing Stock
3.0%	3.7%	9.6%

■ Under Construction Sq. Ft.

■ Planned Sq. Ft.

■ Prospective Sq. Ft.

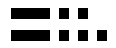
Top 10 Markets	Sq. Ft. UC (MM)	UC as a % of Existing Stock
Austin	10.5	12.2%
Seattle	14.2	8.4%
Brooklyn	3.2	7.7%
Charlotte	5.5	7.1%
Nashville	4.2	7.0%
San Francisco	10.5	5.8%
Portland	3.9	5.3%
Miami	3.7	5.0%
Carolina Triangle	3.9	5.0%
Urban Boston	13.3	4.8%

Top 10 Markets	Sq. Ft. Planned (MM)	Planned as a % of Existing Stock
Austin	16.2	19.0%
Carolina Triangle	12.8	16.2%
Queens	3.1	12.5%
Charlotte	7.6	9.8%
Nashville	5.5	9.1%
Long Island	4.9	8.9%
Orlando	5.9	8.9%
Wichita	1.0	8.3%
San Francisco	14.4	7.9%
North Dallas	24.3	7.7%

Top 10 Markets	Sq. Ft. Prospective (MM)	Prospective as a % of Existing Stock
Austin	28.9	33.8%
Nashville	17.8	29.3%
Charlotte	19.2	24.8%
Bay Area	64.8	24.1%
Miami	14.1	19.3%
Atlanta	36.4	17.1%
Phoenix	23.9	16.4%
San Francisco	28.6	15.8%
Brooklyn	6.5	15.5%
Orlando	10.0	15.1%

\*As of October 2020

Source: Yardi Matrix

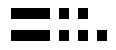


# Office Supply Forecast Assumptions

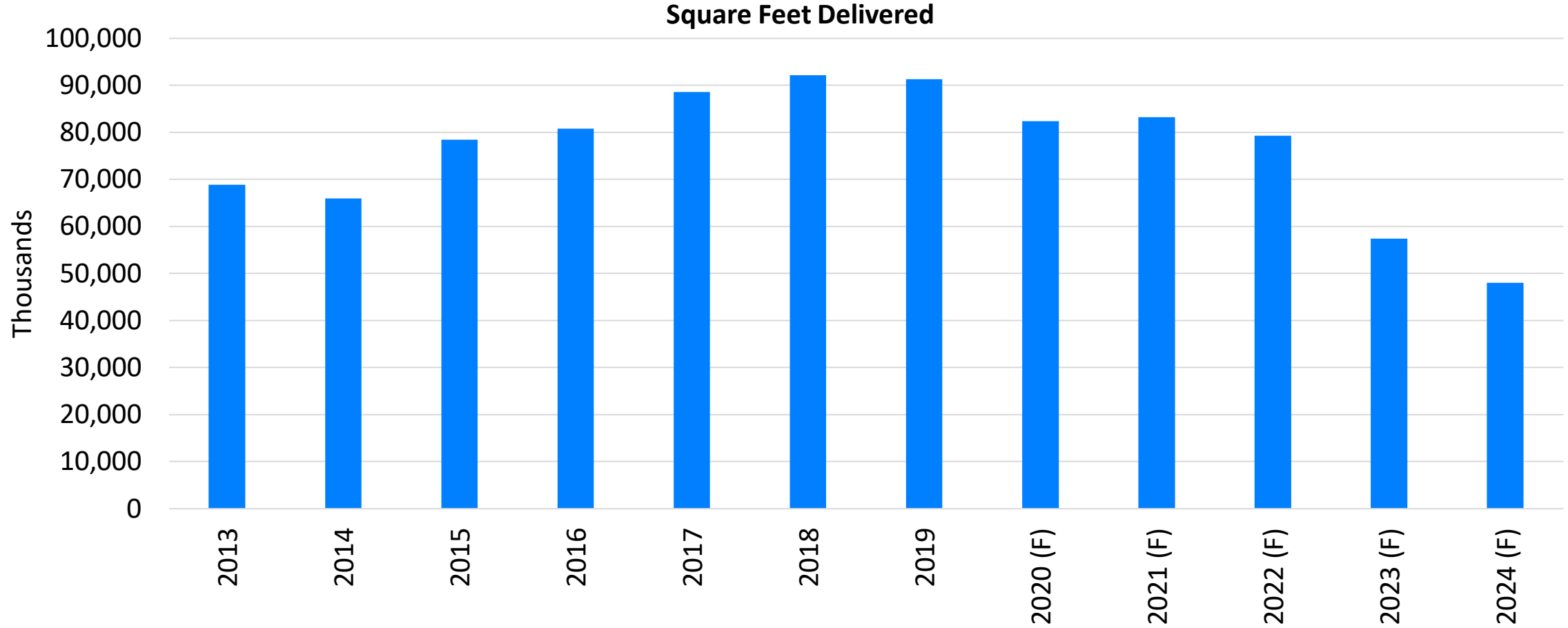


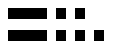
- 325 million rentable square feet projected to be delivered from 2020 – 2024
- Year-over-year declines in national deliveries expected, most markets have already been in decline over the last five years
- The forecast estimates the days a property will be under construction by evaluating the following property characteristics:
  - Gross square footage
  - Number of buildings
  - Total stories
  - Build type (low rise, mid rise, or high rise)
  - Number of passenger elevators
  - Parking structure



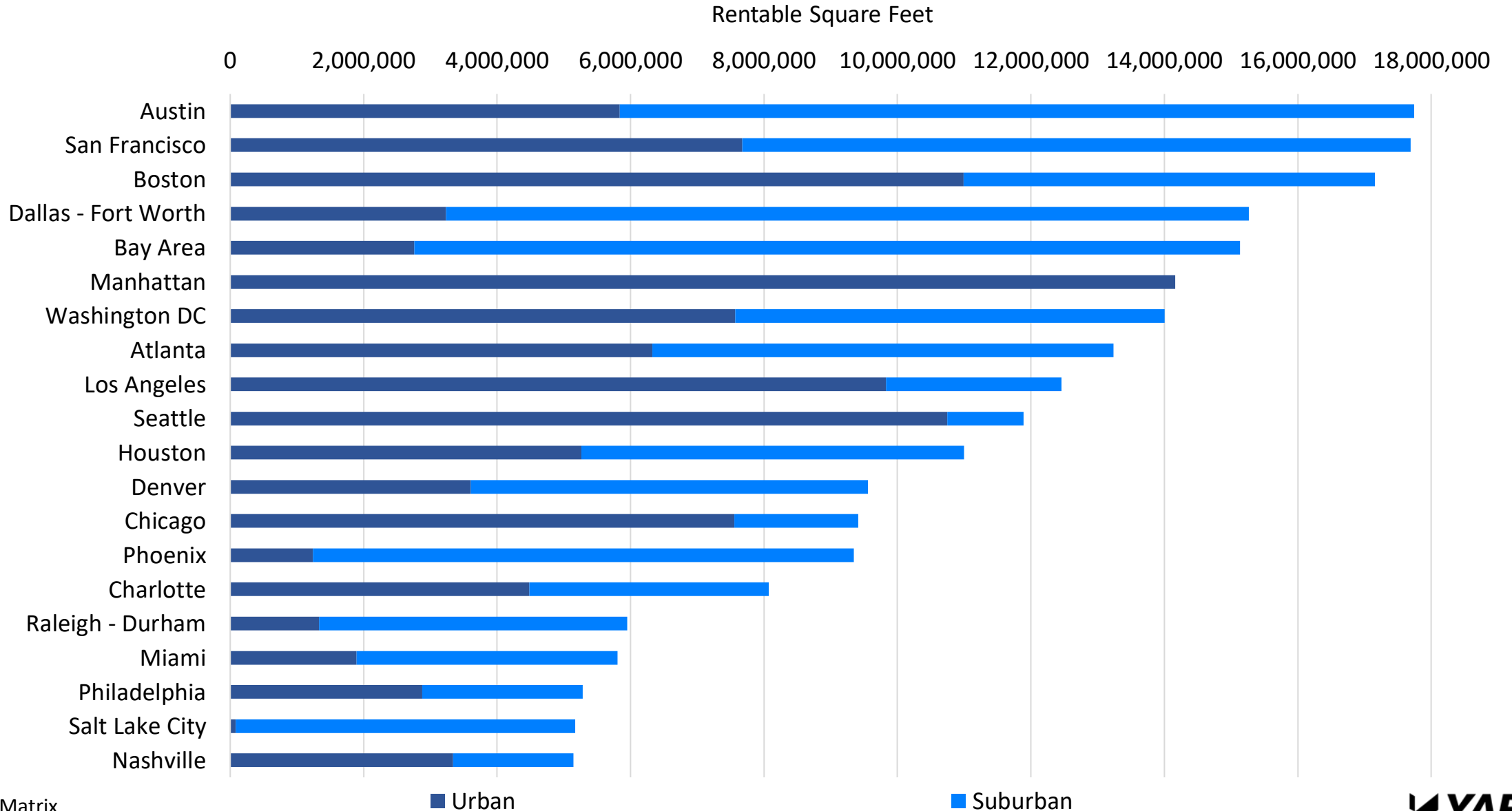


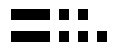
# We Are Projecting Office Supply to Fall Off Over the Next Five Years





# Top 20 Markets For New Supply: 2020 - 2024



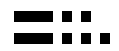


# Top 20 Markets: Deliveries As a % of Stock



Market	2020	2021	2022	2023	2024
Austin	5.8%	4.0%	3.2%	4.5%	2.6%
Charlotte	2.7%	1.9%	1.7%	1.9%	2.2%
Seattle	2.6%	2.0%	0.8%	1.1%	0.7%
Salt Lake City	2.6%	0.8%	1.4%	0.7%	1.6%
Raleigh - Durham	2.5%	1.5%	1.6%	0.8%	1.5%
San Francisco	2.3%	1.6%	2.1%	2.3%	1.7%
Nashville	2.3%	0.4%	3.3%	2.4%	0.4%
Boston	2.2%	1.4%	1.7%	0.4%	0.9%
Atlanta	1.7%	1.5%	1.6%	0.7%	0.9%
Los Angeles	1.6%	1.0%	0.8%	0.2%	0.5%
Washington DC	1.3%	0.7%	0.4%	0.2%	0.8%
Miami	1.3%	2.2%	0.8%	2.2%	1.9%
Bay Area	1.2%	1.9%	0.7%	0.8%	0.9%
Houston	1.0%	1.4%	0.6%	0.3%	0.8%
Phoenix	1.0%	1.4%	1.8%	1.2%	1.1%
Denver	0.8%	1.3%	0.8%	1.8%	0.7%
Dallas - Fort Worth	0.7%	1.4%	0.7%	0.8%	1.3%
Manhattan	0.7%	0.5%	0.6%	1.0%	0.2%
Chicago	0.6%	1.0%	0.2%	0.2%	0.8%
Philadelphia	0.3%	0.9%	0.7%	0.5%	0.2%

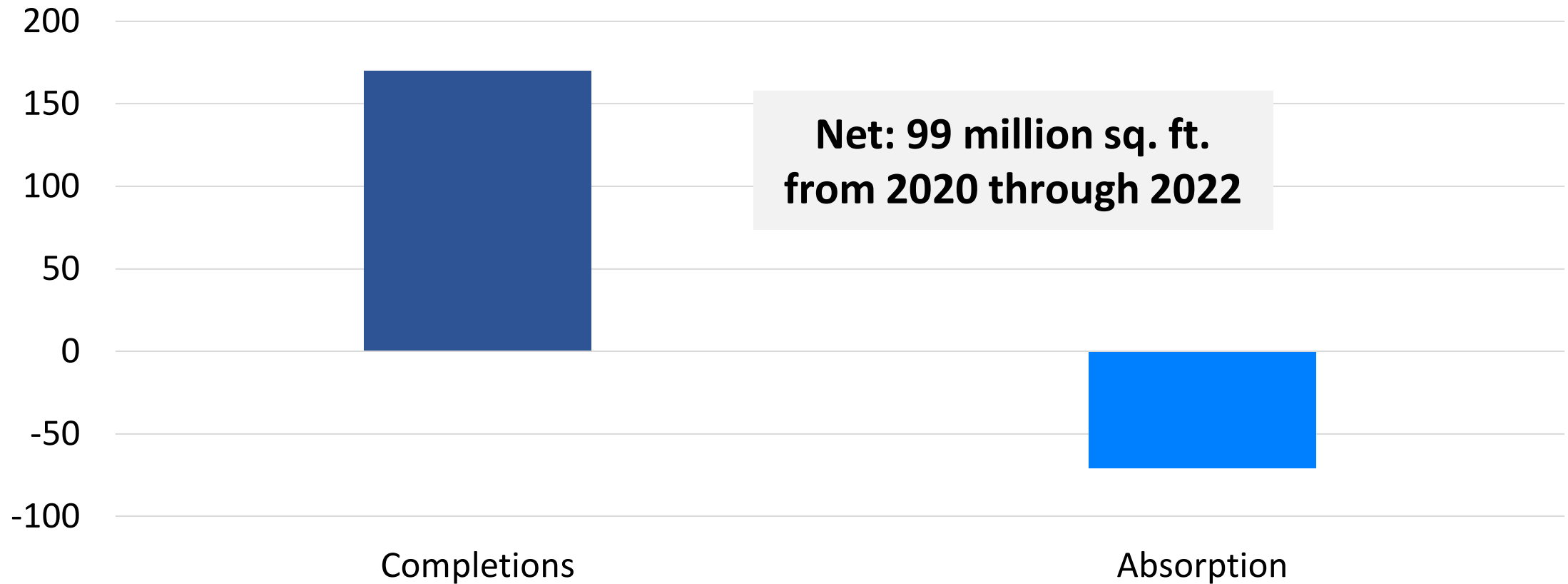




# Pandemic Driving Future Supply-Demand Imbalance

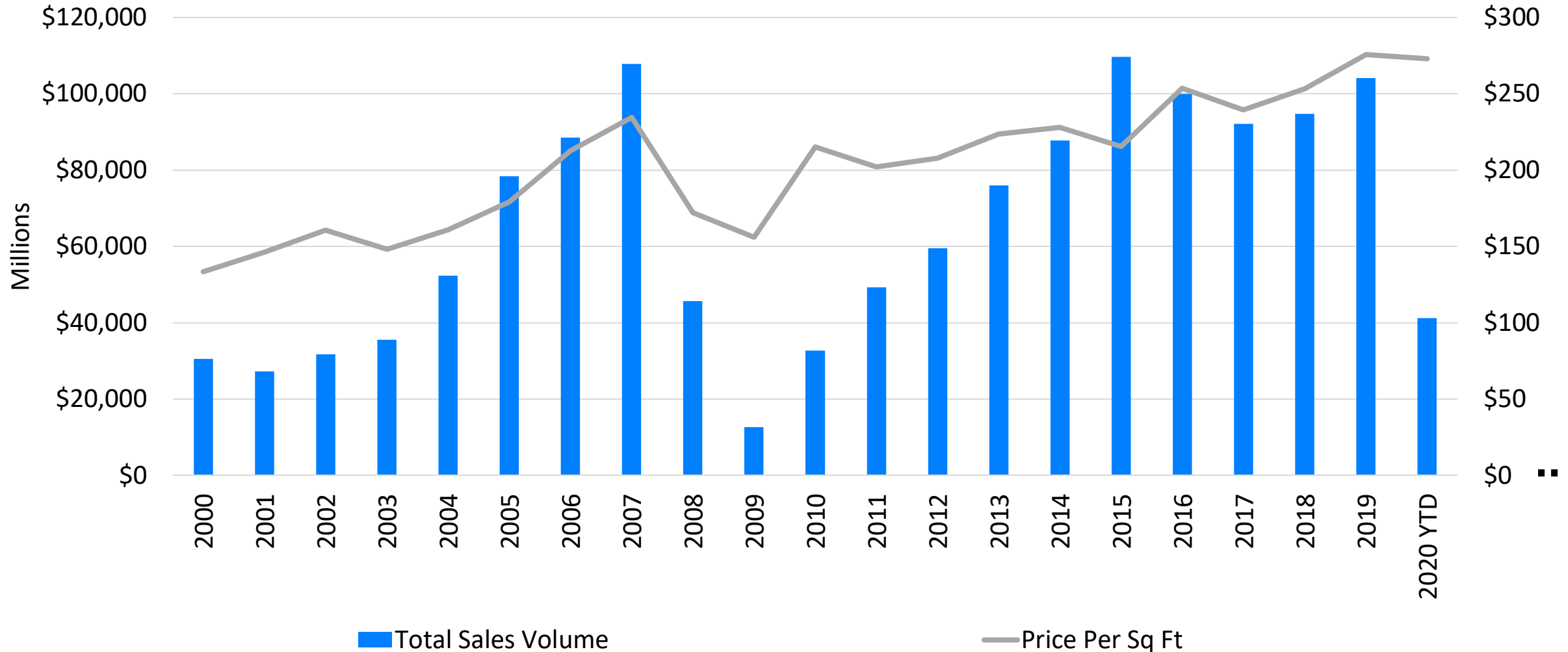


## Top 25 Markets: Forecasted Absorption + Completions in Sq. Ft. 3 Years: 2020-2022





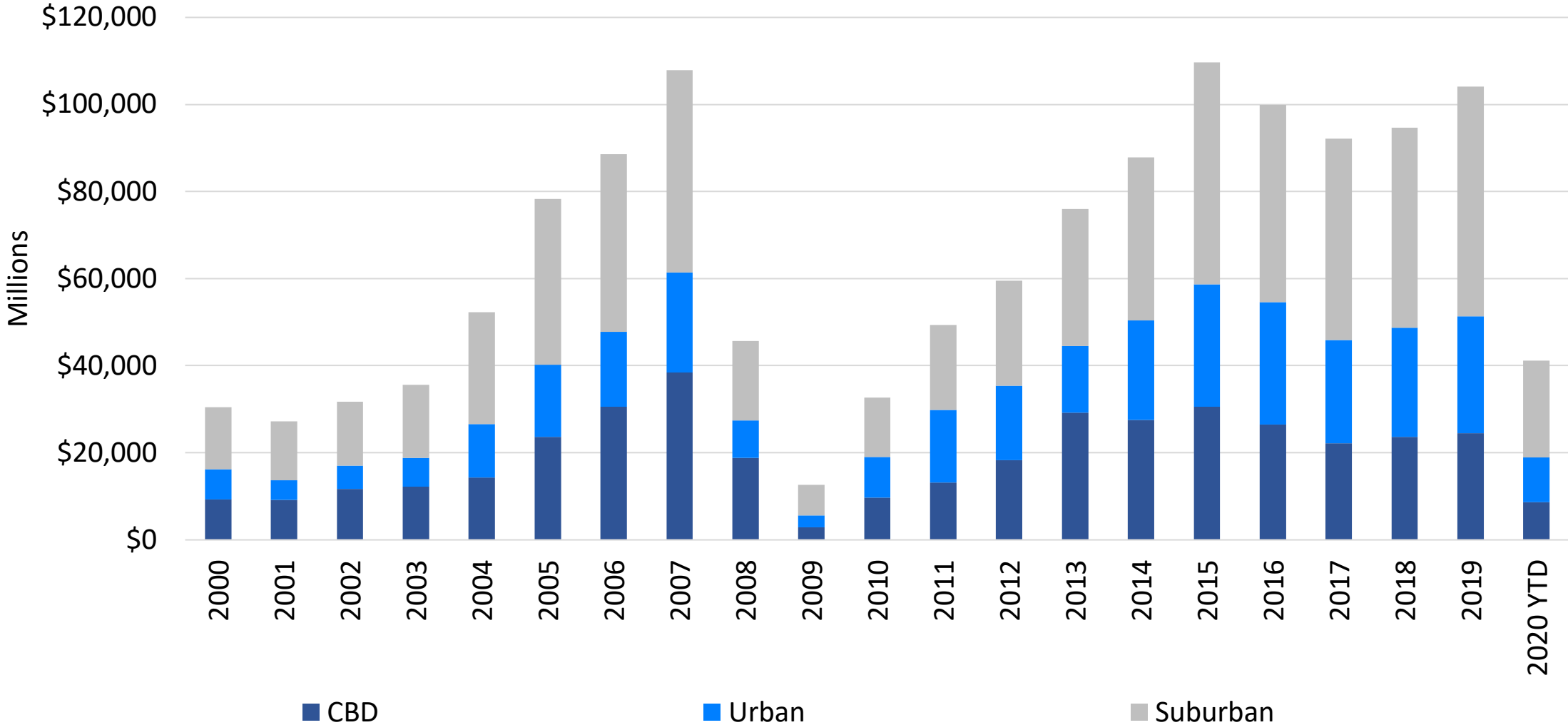
# There Has Been a Significant Drop in Office Transaction Activity This Year, But PPSF Has Remained Stable



\*As of October 2020  
Source: Yardi Matrix



# The Drop in Total Office Sales Prices Has Been Evenly Distributed Among CBD, Urban and Suburban Locations



\*As of October 2020  
Source: Yardi Matrix





# Pandemic Likely to Fuel Demand for Medical Office and R&D Office Space

## MEDICAL OFFICE

Nationally, Yardi Matrix Covers...

1.9 billion SF of medical office space

- 1.8 billion SF completed
- 17 million SF under construction
- 17.5 million SF planned
- 50 million SF in the prospective phase

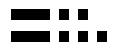
## LIFE SCIENCES/R&D SPACE

Nationally, Yardi Matrix Covers...

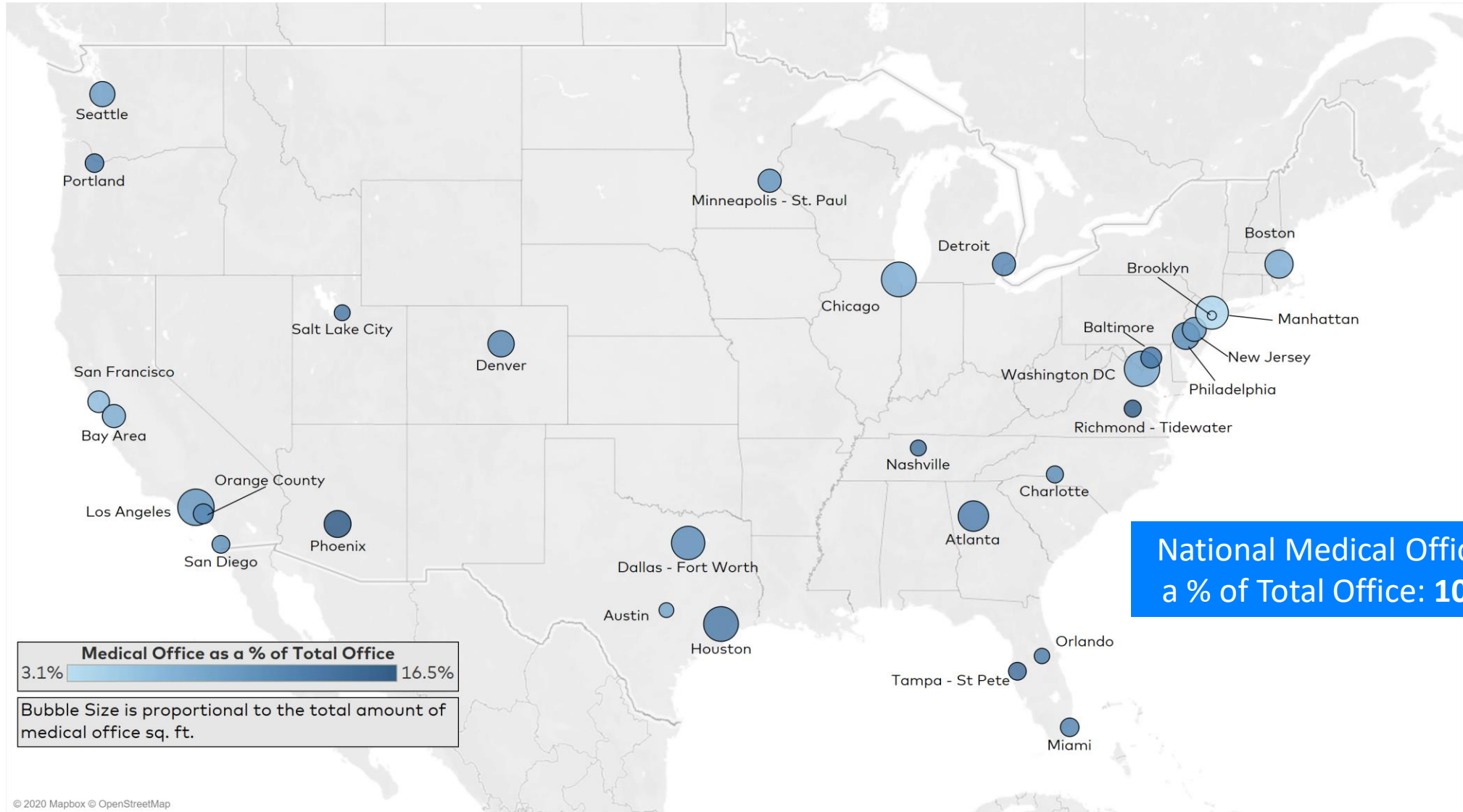
419 million SF of R&D Space

- 314 million SF completed
- 22.1 million SF under construction
- 22.3 million SF planned
- 60.8 million SF in the prospective phase





# Medical Office Concentrated in Sunbelt Markets

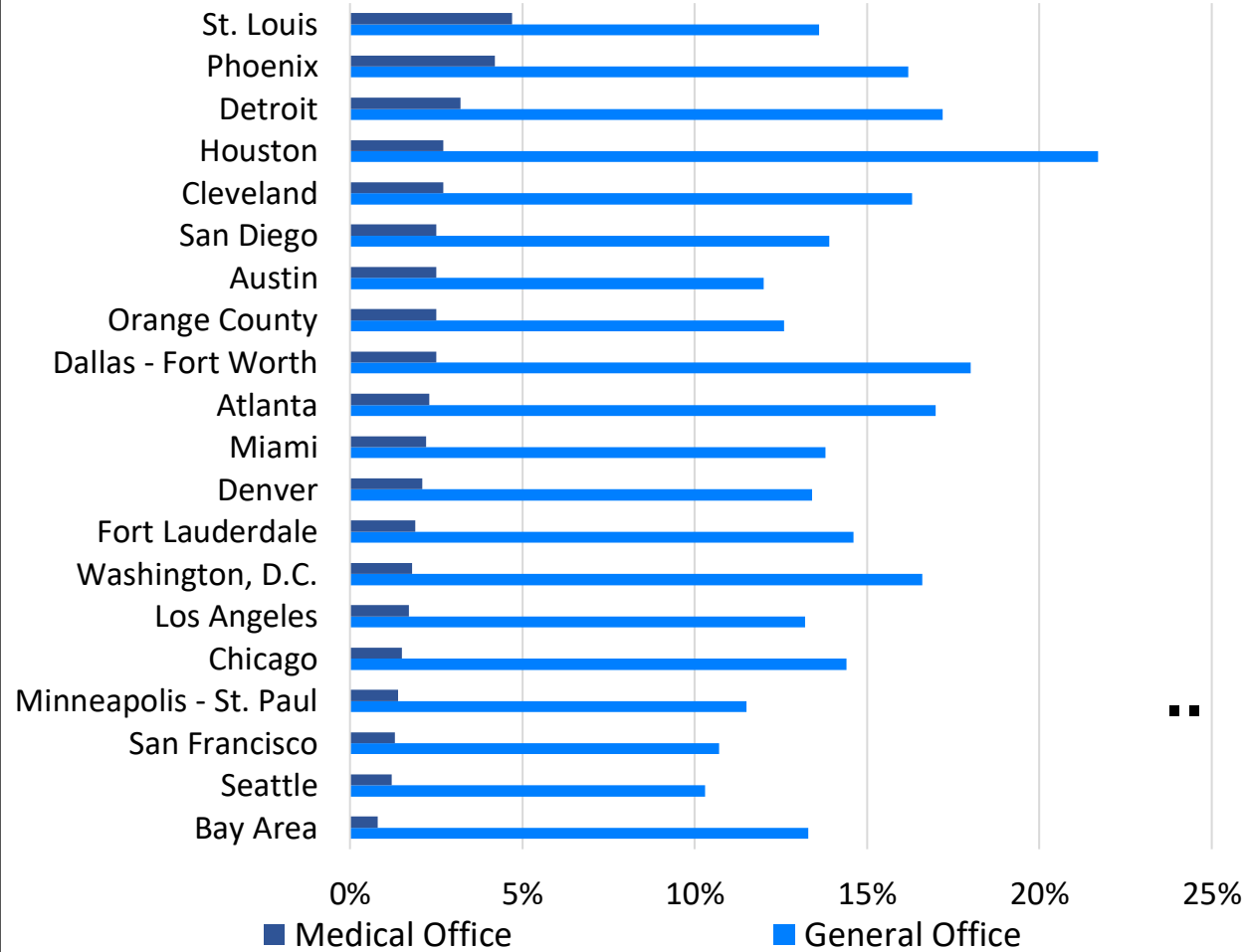
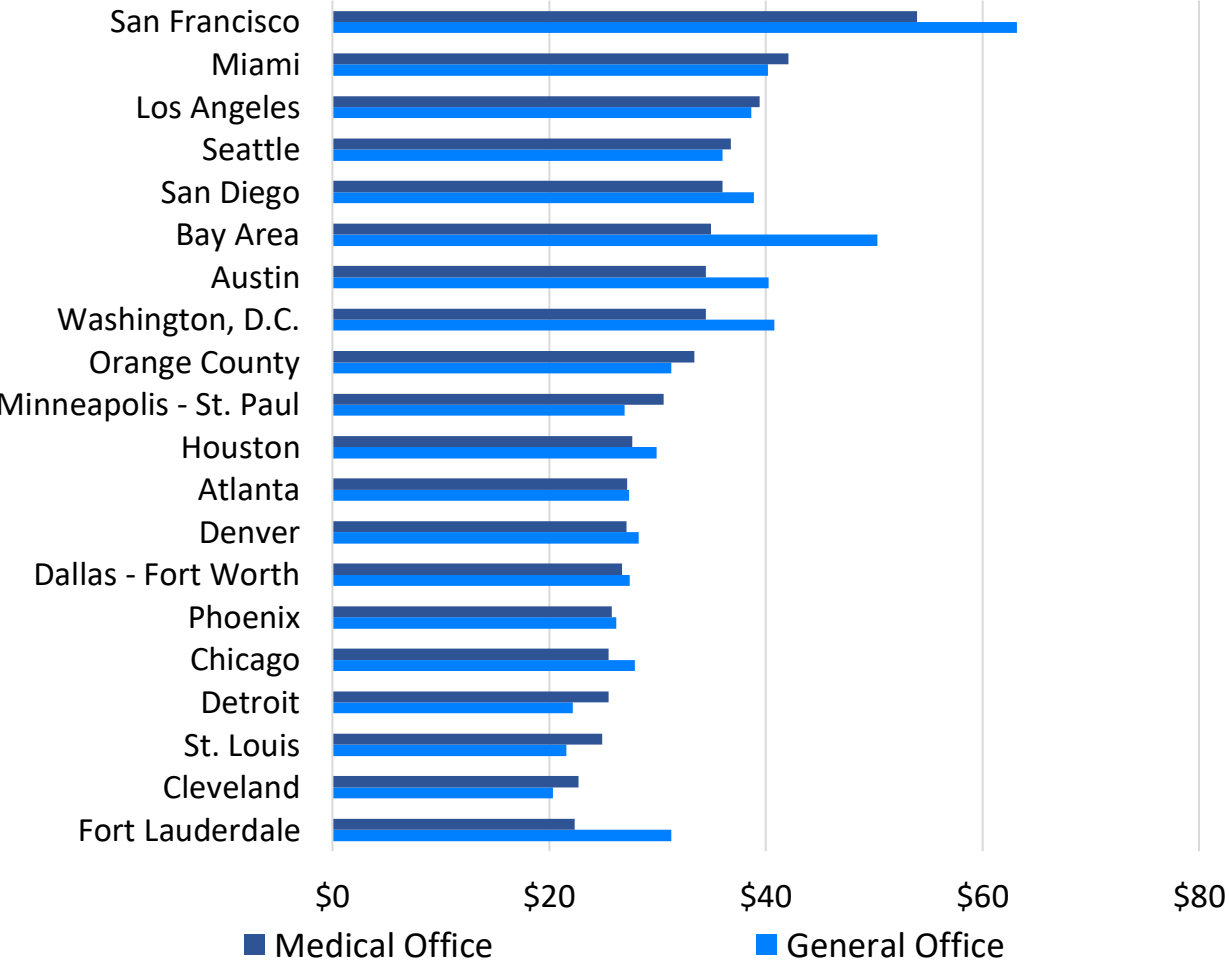


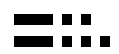
© 2020 Mapbox © OpenStreetMap

# Medical Office Has Significantly Lower Vacancies Than General Office

## Market Asking Rent

## Market Vacancy

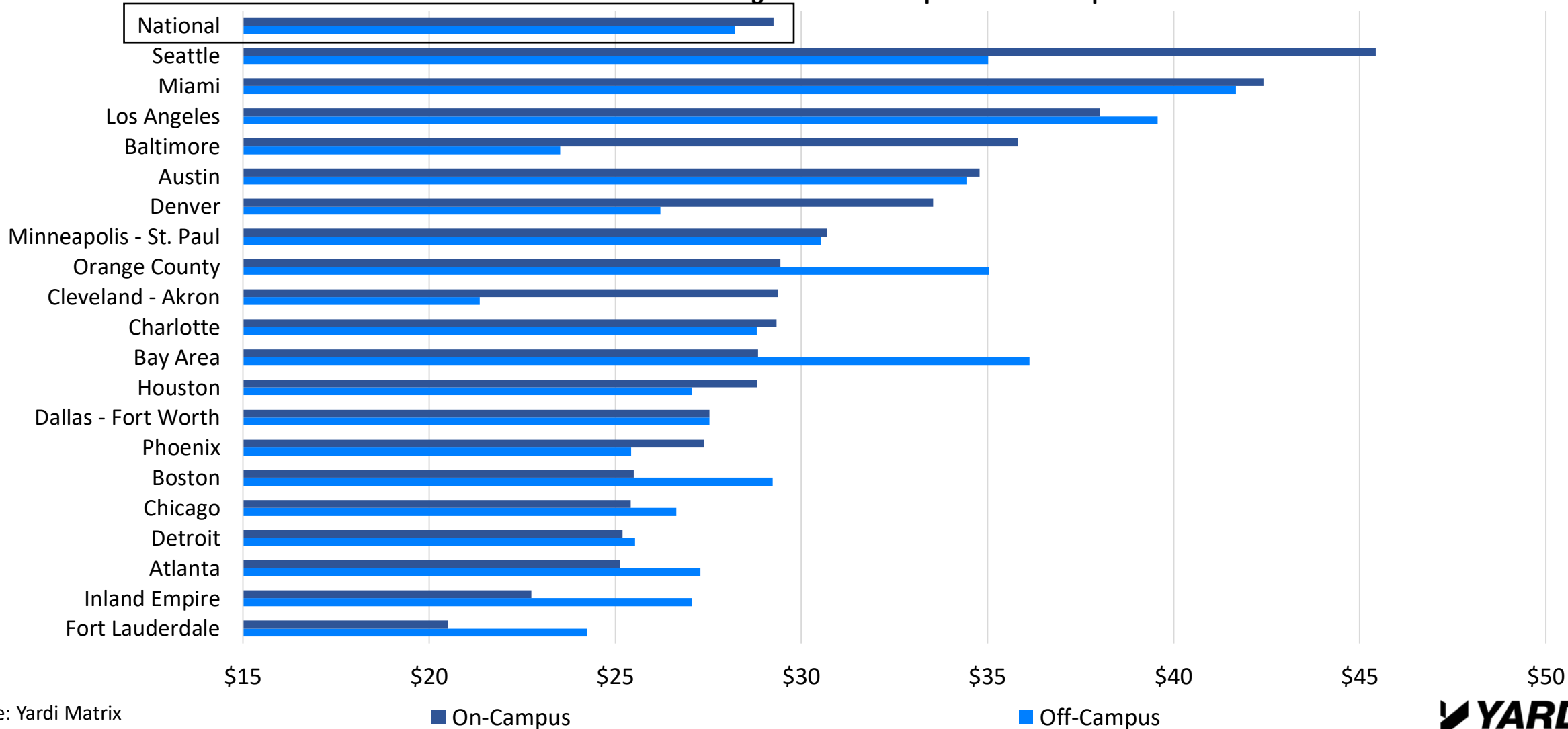


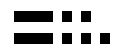


# On-Campus Medical Office Tends to Have Higher Asking Rates Than Off-Campus, Just Like Student Housing



Medical Office Market Asking Rates: On-Campus VS. Off-Campus

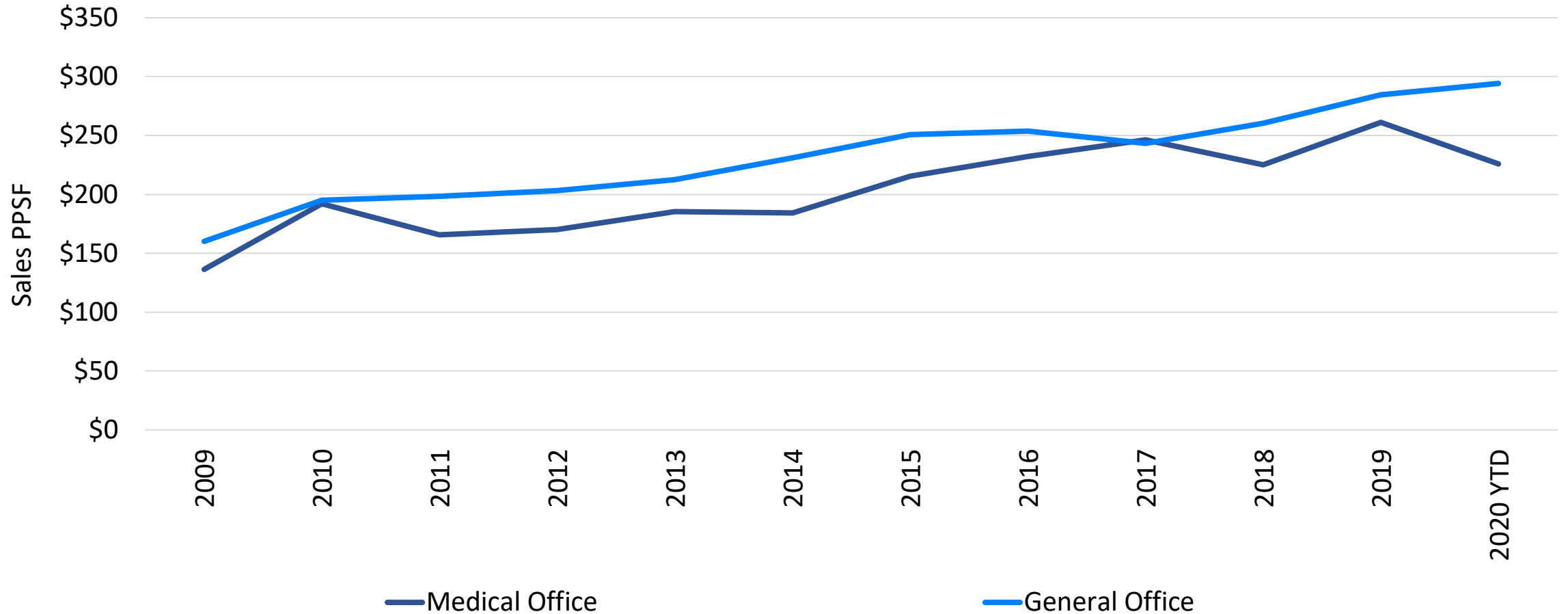


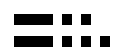


# Medical Office PPSF & General Office PPSF Converged in 2017, But General Office Has Outperformed Since



National Medical Office VS. General Office - PPSF

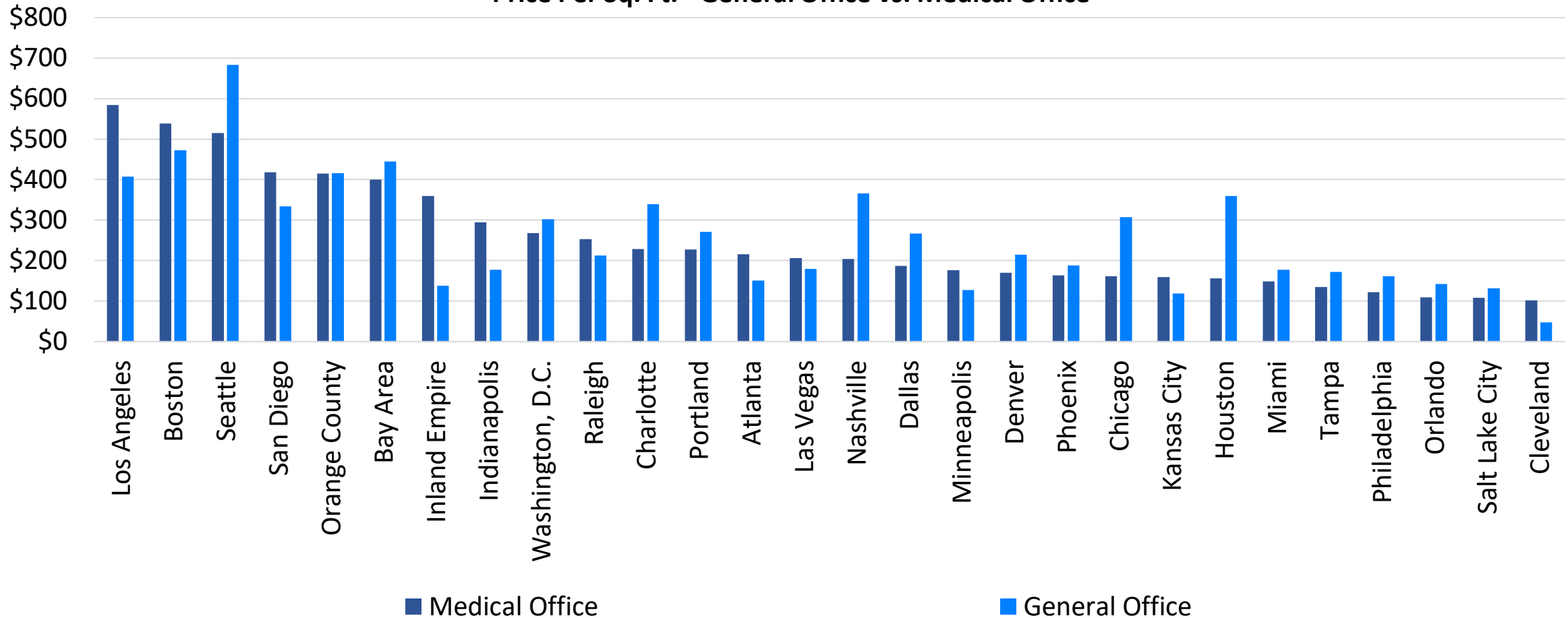


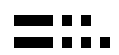


# There is Variance At the Market Level, But Medical Office Typically Sells at a Lower Price Than General Office



Price Per Sq. Ft. - General Office vs. Medical Office





# Where is Future Medical Office Supply Concentrated?

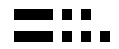


Under Construction		
Top 10 Markets	Sq. Ft. UC	% of Existing Stock
Boise	397,000	11.8%
Brooklyn	409,672	7.6%
Grand Rapids	381,559	5.6%
Tallahassee	65,200	5.4%
Portland ME	196,501	4.4%
Austin	611,828	4.2%
Raleigh - Durham	502,714	3.9%
Cincinnati	485,000	3.7%
Richmond	657,000	3.4%
Dayton	120,000	3.0%

Planned		
Top 10 Markets	Sq. Ft. Planned	% of Existing Stock
Tallahassee	136,000	11.3%
Orlando	757,836	4.7%
Wilmington	75,000	4.7%
Madison	284,300	4.6%
Boise	117,700	3.5%
Albany	240,000	3.5%
Cleveland - Akron	550,000	3.0%
White Plains	400,000	2.9%
Brooklyn	146,500	2.7%
Knoxville	107,000	2.5%

Prospective		
Top 10 Markets	Prosp. Sq. Ft.	% of Existing Stock
White Plains	2,897,610	20.7%
Tri-Cities	184,116	13.6%
Buffalo	651,000	13.3%
Raleigh - Durham	1,567,036	12.1%
Washington DC	8,415,954	10.1%
Queens	539,331	9.0%
West Palm Beach	1,032,278	7.9%
Scranton	122,226	7.4%
Atlanta	4,355,800	7.0%
Sacramento	1,343,487	7.0%





# What is R&D Office Space?



Highly specialized laboratory or research and development space that is targeted at emerging biotech start-ups and is highly concentrated

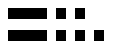
*Examples: Biotech, Bioscience, Life Science, Pharma, Biochemical*

Recent Projects:

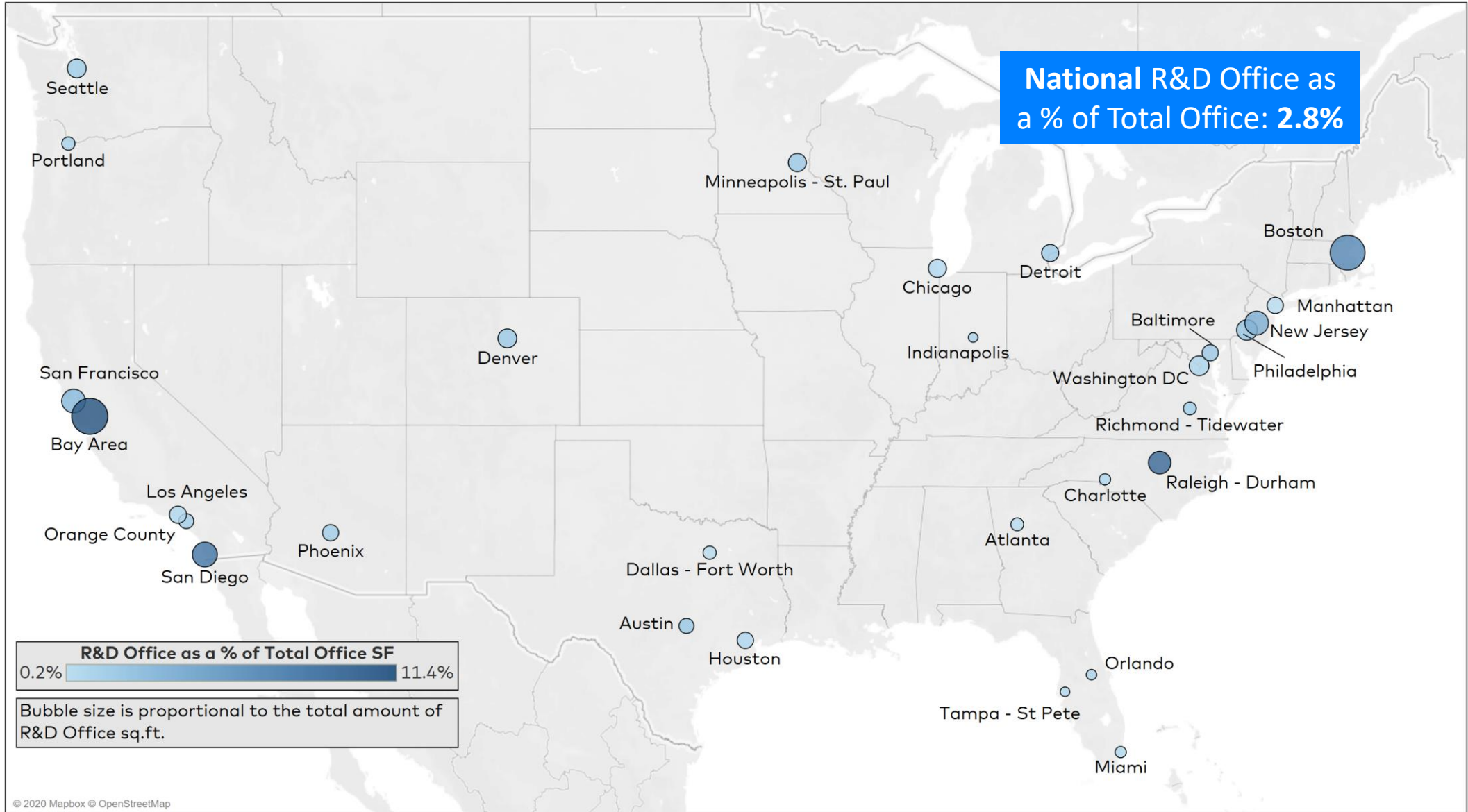
- **101 South Street – Somerville, MA:**
  - Nine-story, 290K SF property is part of a three-phase project called Boynton Yards that is expected to be completed in summer 2021
  - With seven acres of land, Boynton Yards will be a live-work-play neighborhood featuring more than 1 million square feet of commercial, residential, retail, public green, arts and performance space
  - Expected to bring 4,000 permanent jobs to Somerville and establish it as another prominent life sciences hub in the region
- **225 Wyman Street – Waltham, MA:**
  - 500K SF life sciences building – scheduled for completion in March 2022
  - Amenities will include a fitness center, conference center, dining facility, outdoor event space, green space, and a 3-acre courtyard
- **San Diego Research and Development District – San Diego, CA:**
  - \$1.5 billion, 8-acre waterfront site will be developed by IQHQ Inc.
  - First phase is expected to deliver by the summer of 2023

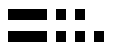






# R&D Office Space as a % of Total Office

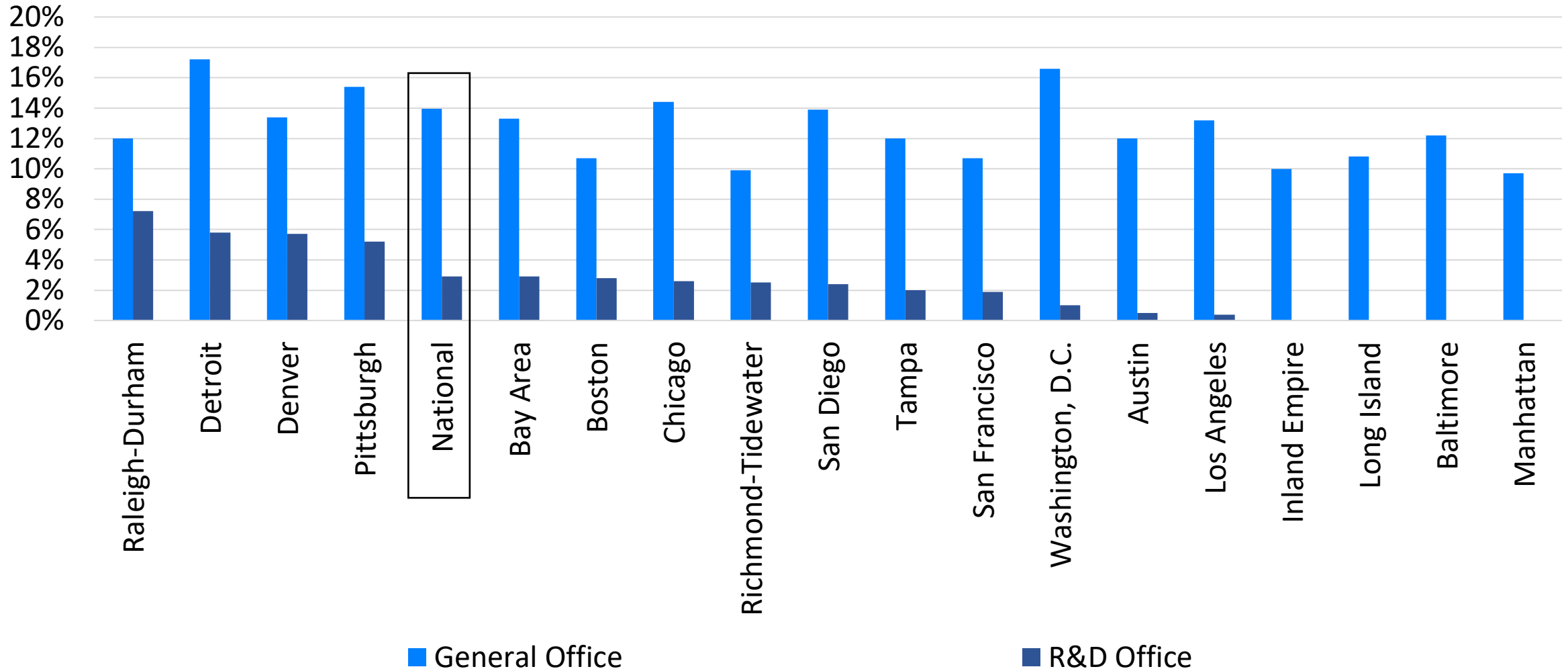




# R&D Office Has Lower Vacancy Than General Office



## Market Vacancy



■ General Office

■ R&D Office

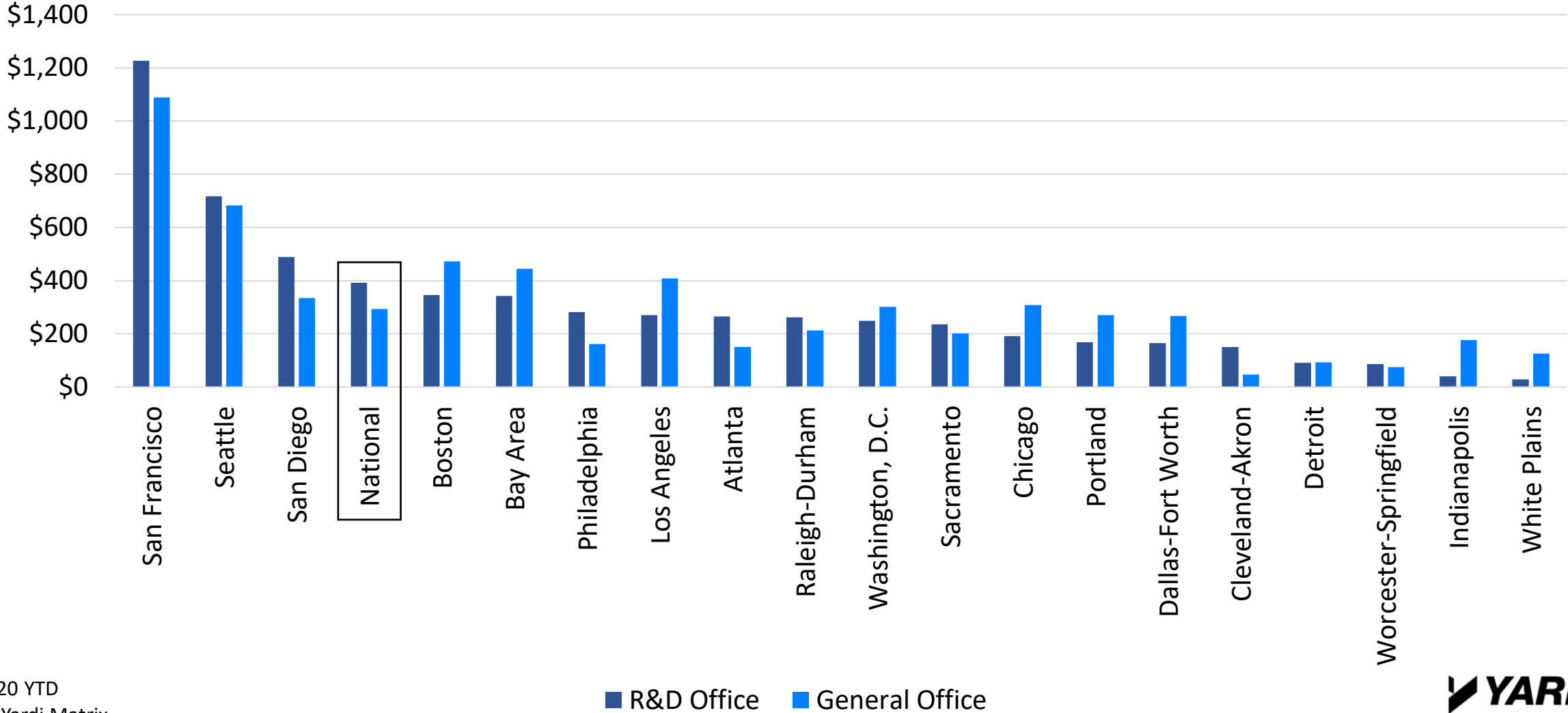
\*Baltimore, Inland Empire, Long Island & Manhattan have a 0% vacancy rate for R&D Office

Source: Yardi Matrix



# R&D Office Sells at a Higher Price Than General Office in Many Markets

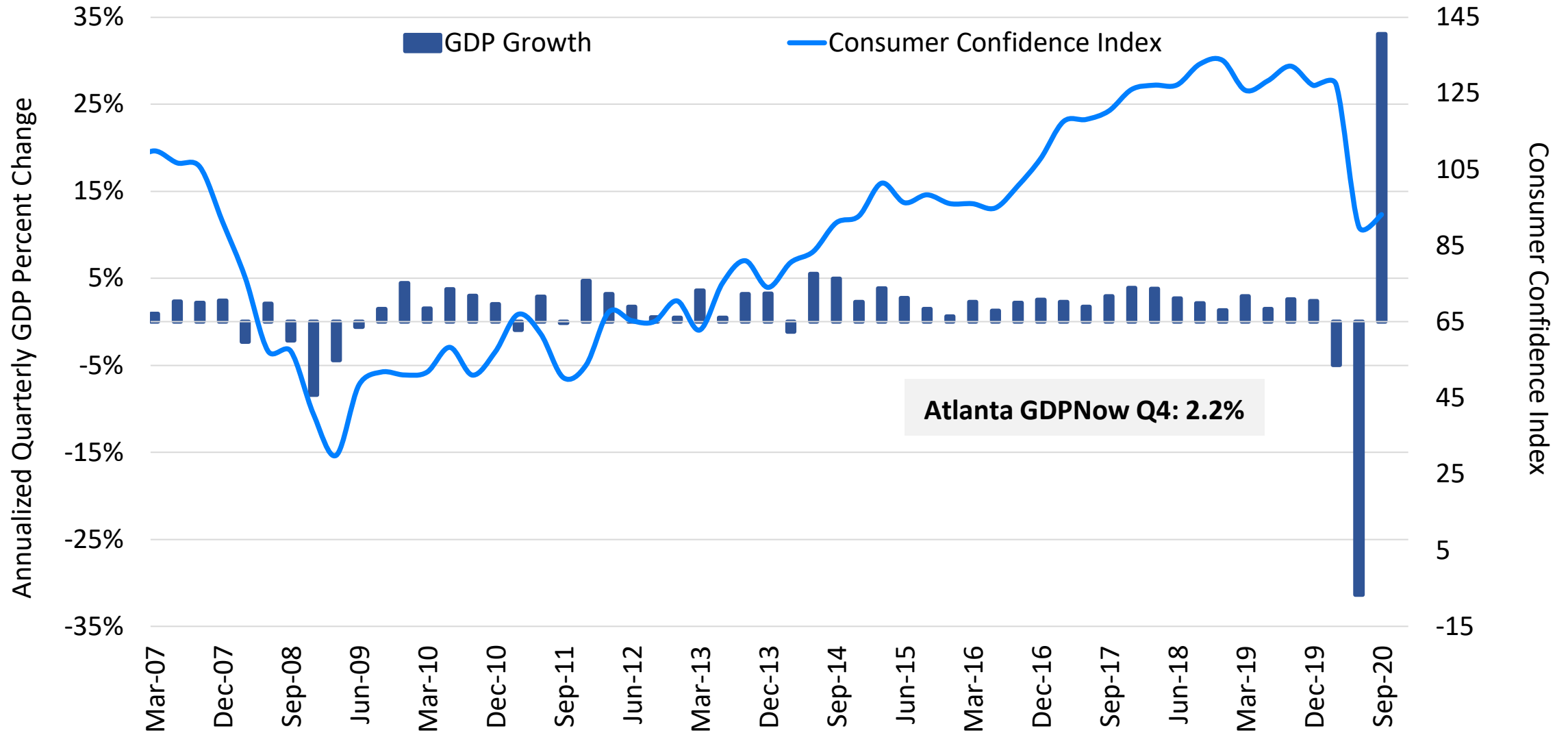
Price Per Sq. Ft. - General Office vs. R&D Office

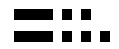


\*For 2020 YTD  
Source: Yardi Matrix



# GDP Growth Has Suffered Drastically Due to COVID-19





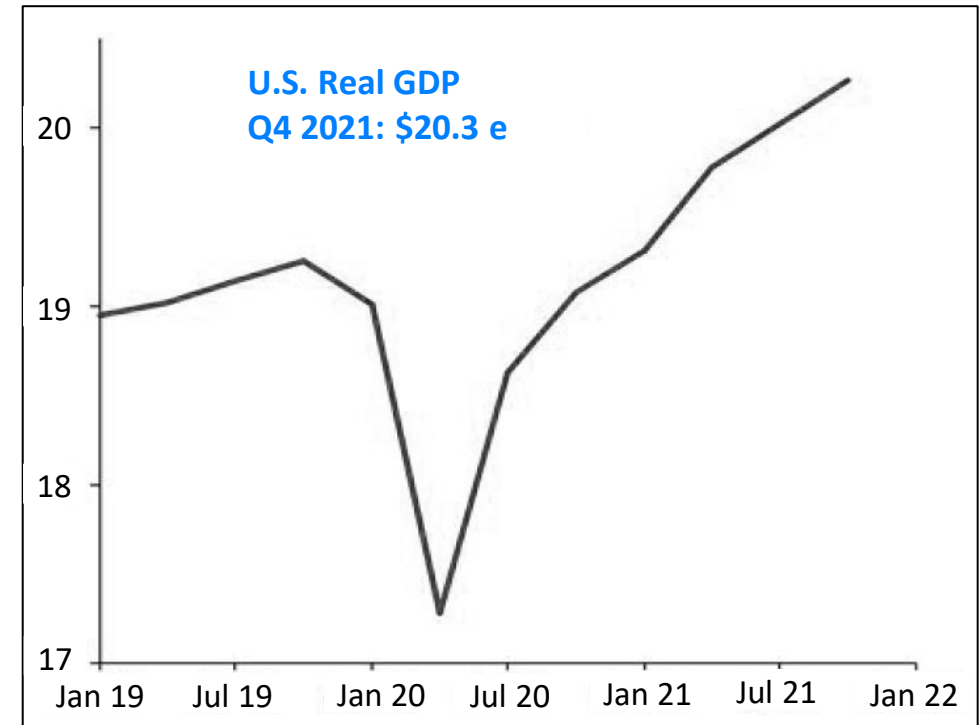
# U.S. GDP Forecast: A "V" or "U"-Shaped Recovery

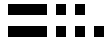


We share Evercore ISI's view, that the recovery in GDP looks like a V/U-shaped rebound...

- In **Q3 2020**, GDP will probably increase **+35%** (quarter-over-quarter, Q/Q)
- Slowdown of GDP growth to **+4% in Q4 2020**
- In **Q1 2021**, GDP growth likely to continue to slow to **+5%**
- Potential **uptick of +8% in Q2 2021** due to vaccine, but this forecast is variable
- The **last two quarters of 2021** are both projected to see roughly **+5% growth** in GDP
- **If this forecast is accurate, the recovery will be V/U-shaped**

U.S. Real GDP Forecasted Growth Q/Q % A.R.					
2020		2021			
Q3	Q4	Q1	Q2	Q3	Q4
+35%	+4%	+5%	+8%	+5%	+5%





# In Summary



- As office is a long lease asset class, movement in the data is not quite showing up yet. There is also a lack of potential tenants which gives owners no incentive to lower rates
- Some urban Gateway markets are starting to see signs of weakness, especially when it comes to the dramatic increase in subleasing space available since the beginning of the pandemic and the decline in office space utilization
- Below the surface, owners are starting to feel the loss of non-core income
- The evolution of office space is just beginning with many employees still working from home, office space is forced to become more intentional with a much greater focus on the office as a place for social interactions and experiences
- Demand for medical office and R&D space will likely be fueled by the lasting effects of the pandemic
- Office is in for a long slog and it will take years for this to shake out





# Yardi Matrix Office and Industrial House View Nov. 2020



- Since the start of the pandemic, we have seen the following population migration trends:
  - Gateway markets to secondary tech hub markets
  - Gateway markets to smaller cities within the same metro
  - Urban cores to the suburbs
  - The question is, *what are the implications of these trends for industrial and office?*
- Recent increases in coronavirus caseloads will result in a slowdown in economic activity, but not enough to derail it
- The rise in e-commerce, fueled by the pandemic, has allowed industrial rents to continue to increase in most markets, while vacancy remains low
- Office listing rates and vacancy have remained relatively sticky with a slight downward trend during the pandemic. The long-term nature of office leases coupled with a lack of potential tenants gives owners no incentive to dramatically lower rates
- Office space utilization is down big in gateway cities as many employees continue to work from home
- Interesting things are happening below the surface in office: large increases in subleasing space in most markets, non-core income is being affected (parking fees, studio fees, etc.) and the re-evaluation of coworking
- New work environment appears likely to look like 3 days on, 2 days off, more like a consultant, where the use of space has to become more intentional and purposeful



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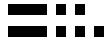
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FOR ANY QUESTIONS PLEASE FEEL FREE TO CONTACT US

JEFF ADLER | 1.800.866.1124 x2403 | [JEFF.ADLER@YARDI.COM](mailto:JEFF.ADLER@YARDI.COM)

PETER KOLACZYNSKI | 1.800.866.1124 x2410 | [PETER.KOLACZYNSKI@YARDI.COM](mailto:PETER.KOLACZYNSKI@YARDI.COM)

