

MARKET UPDATE

Dallas

Thursday, February 20, 2020

Hotel Crescent Court



MULTIFAMILY & COMMERCIAL MARKET UPDATE

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| INDUSTRY PRINCIPAL, YARDI



AGENDA

1. Macroeconomic Outlook
2. Multifamily Fundamentals
3. Office Fundamentals
4. Dallas Spotlight



KEY TAKEAWAYS



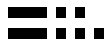
ECONOMY

The economy is experiencing slow but steady growth and headwinds bear monitoring. GDP growth in Q4 was decent (2.1%). U.S. oil production and technological advances are keeping inflation low, below 2%. The service sector labor market is extremely tight, and wages continue to rise – job growth is bolstering the economic expansion. The yield curve remains ever so slightly positive, with the Fed watching closely. Risk of a recession appears to be pushed out further than 2021.



DEMOGRAPHIC SHIFTS

Companies and people are continuing to look for lower-cost alternate cities, which drives a shift of both jobs and population – with the highest population growth and most dynamic job growth occurring in tech hub markets. When this happens, real estate will follow.



KEY TAKEAWAYS – MULTIFAMILY



MULTIFAMILY MARKET

Demand continues to be strong with jobs and population shifting to lower-cost cities and tech hubs. New supply deliveries completed at just under 300,000 units in 2019, and with the constraints of financial and labor costs, 2020 through 2024 deliveries are expected to fall.



RENT GROWTH

Rent growth has bounced back from a low point in late 2017 but has now stabilized. Rent growth remains around 3% nationally with significant variations by city, while occupancy remains stable around 95%.



VALUATIONS & TRANSACTIONS

Valuations continue to rise at a steady pace with compressed cap rates; this has shifted the focus to tech hub and tertiary markets to look for potential value-add opportunities. Transaction volume in 2019 came in right in line with 2018 volume with \$113 billion in sales. The markets where the transactions occurred reflect the shift, as most of the transactions occurred in tech hub markets and tertiary markets.



KEY TAKEAWAYS – OFFICE



COMMERCIAL MARKET

Demand is steady with job growth in office-using industries outpacing other industries, and tech hub markets have had the most dynamic job growth. Completions peaked in 2018, but a lot of markets still have room for absorption. There are secular pressures that continue to alter the office market, such as decreasing square footage per employee, coworking and a changing talent pool for office-using employment.



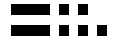
LISTING RATE GROWTH

Most Matrix markets showed moderate rate growth over the last year, but some have seen lease rates fall – Columbus, Central Valley, Chicago and Boston. Conditions are sufficient to maintain this pace of slow occupancy and lease rate growth in most markets.



TRANSACTIONS

Sales volume peaked in 2015 and has been dropping ever since. This is across all market categories. However, sales prices per sq. ft. have increased nationally since 2000, with tech hub markets having the most growth over the past ten years.



2020 OUTLOOK



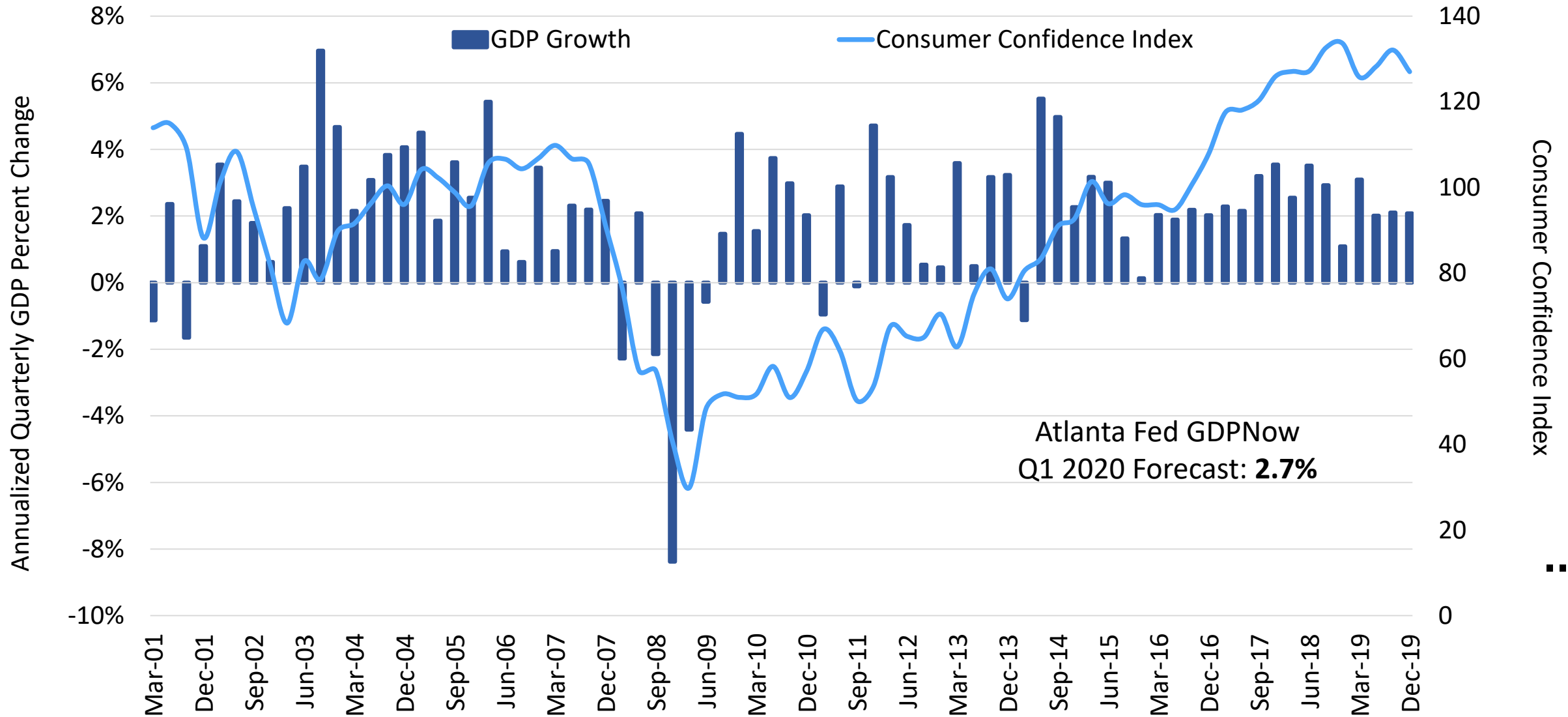
- GDP growth in Q4 was decent, and slow and steady growth will likely continue.
- Supply/demand conditions in multifamily will continue to favor mild rate growth, with higher rates in the tech hub and tertiary markets.
- A decent economy coupled with the demographic shift of jobs will continue to create office demand in tech hub cities, providing a solid base for office-using sectors.
- For new investments, it's a **sharpshooter's game** to find the right deal at the right price.
- On the operational side its about **finding revenue** and **cost trimming** opportunities to grow your NOI from existing assets.



MACROECONOMIC OUTLOOK



U.S. Economic Growth Is Decent, but Slowing



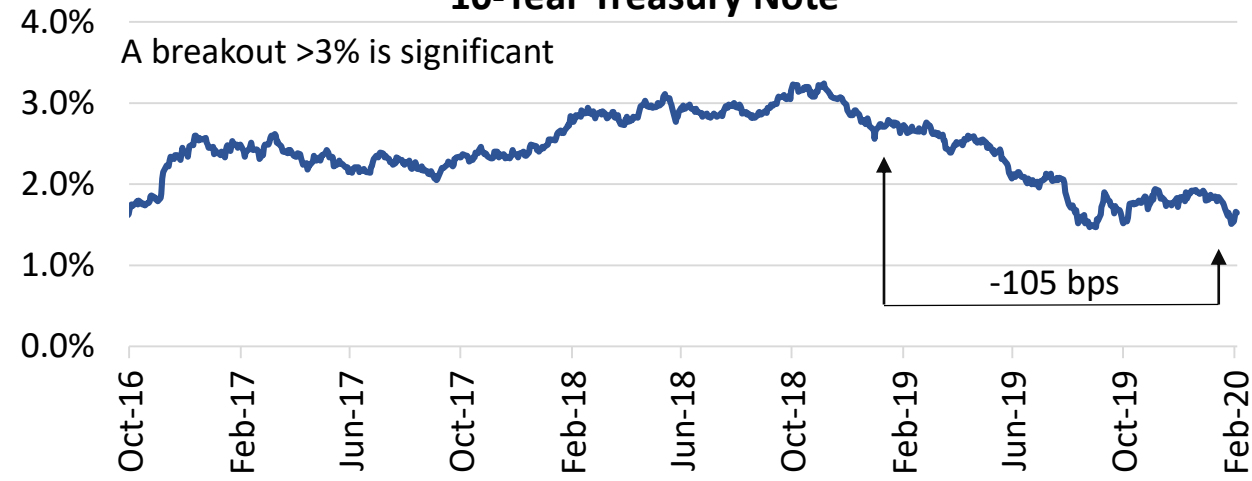
Atlanta Fed GDPNow
Q1 2020 Forecast: **2.7%**

U.S. & International Financial Market

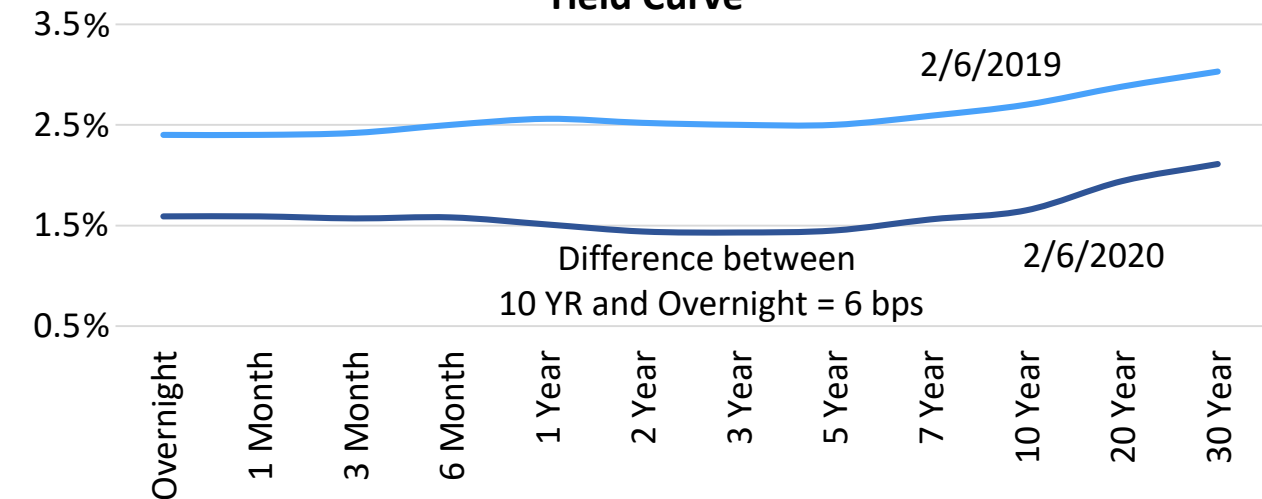
S&P 500



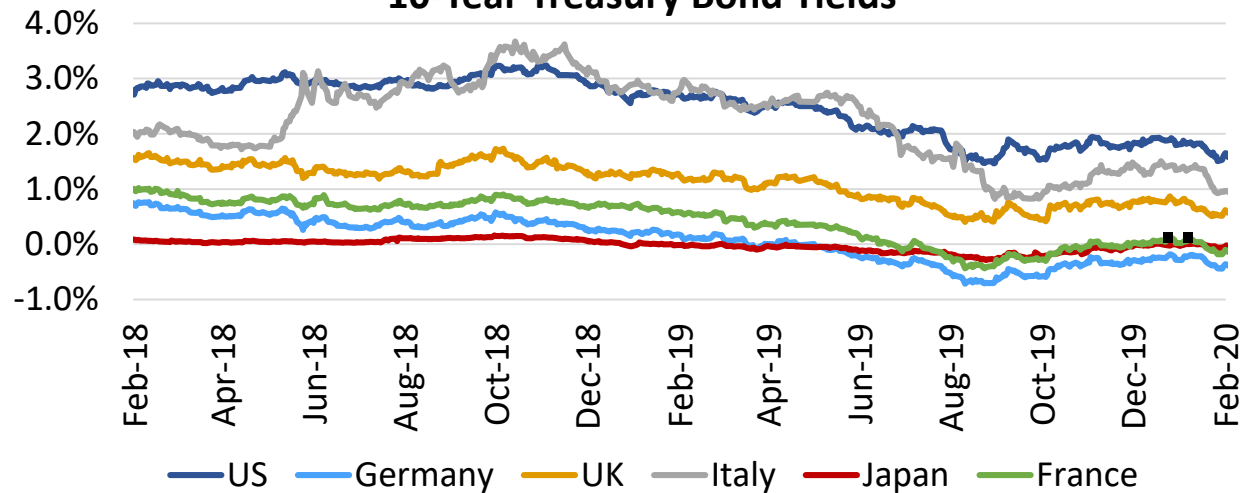
10-Year Treasury Note



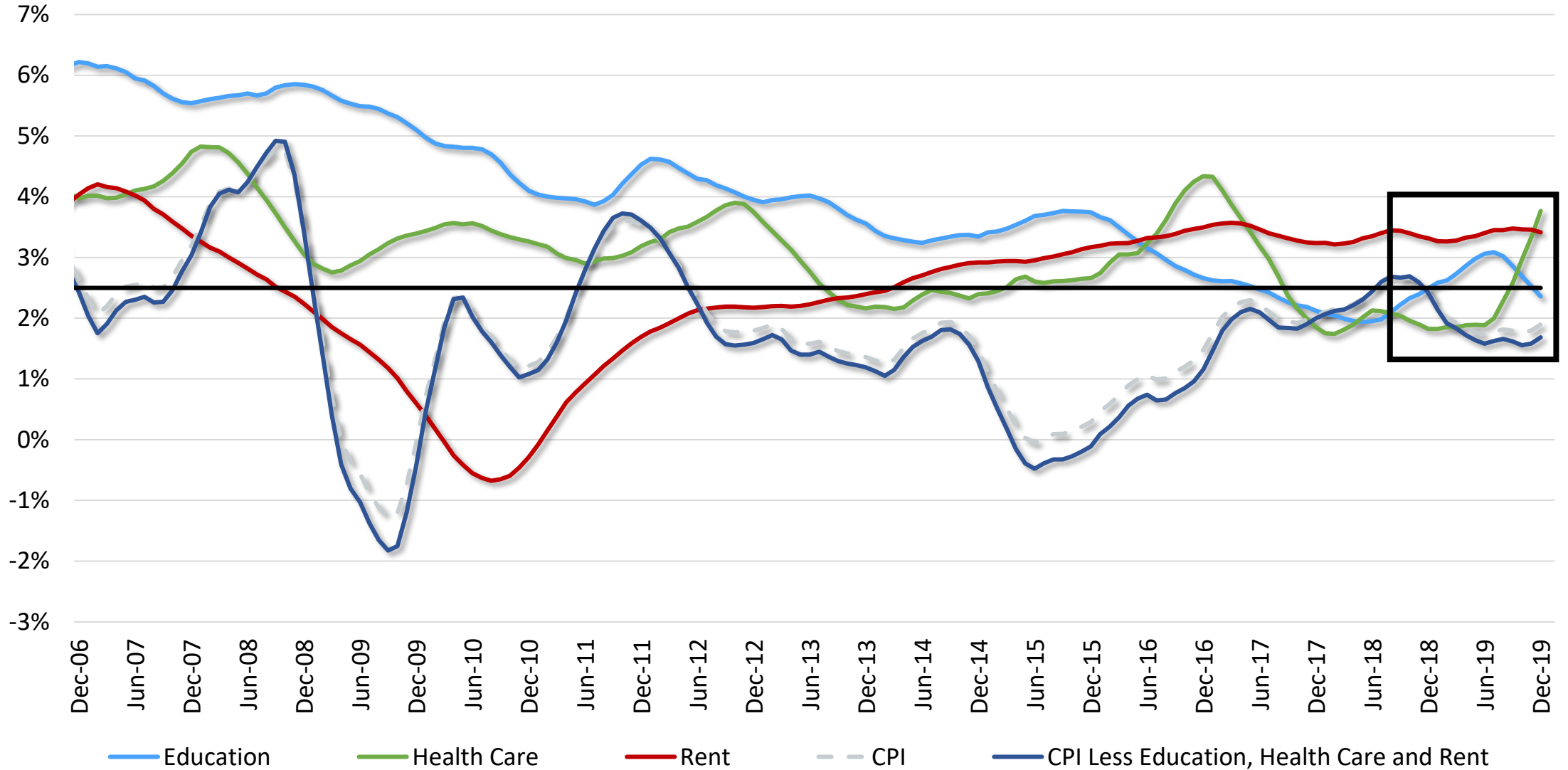
Yield Curve

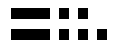


10-Year Treasury Bond Yields

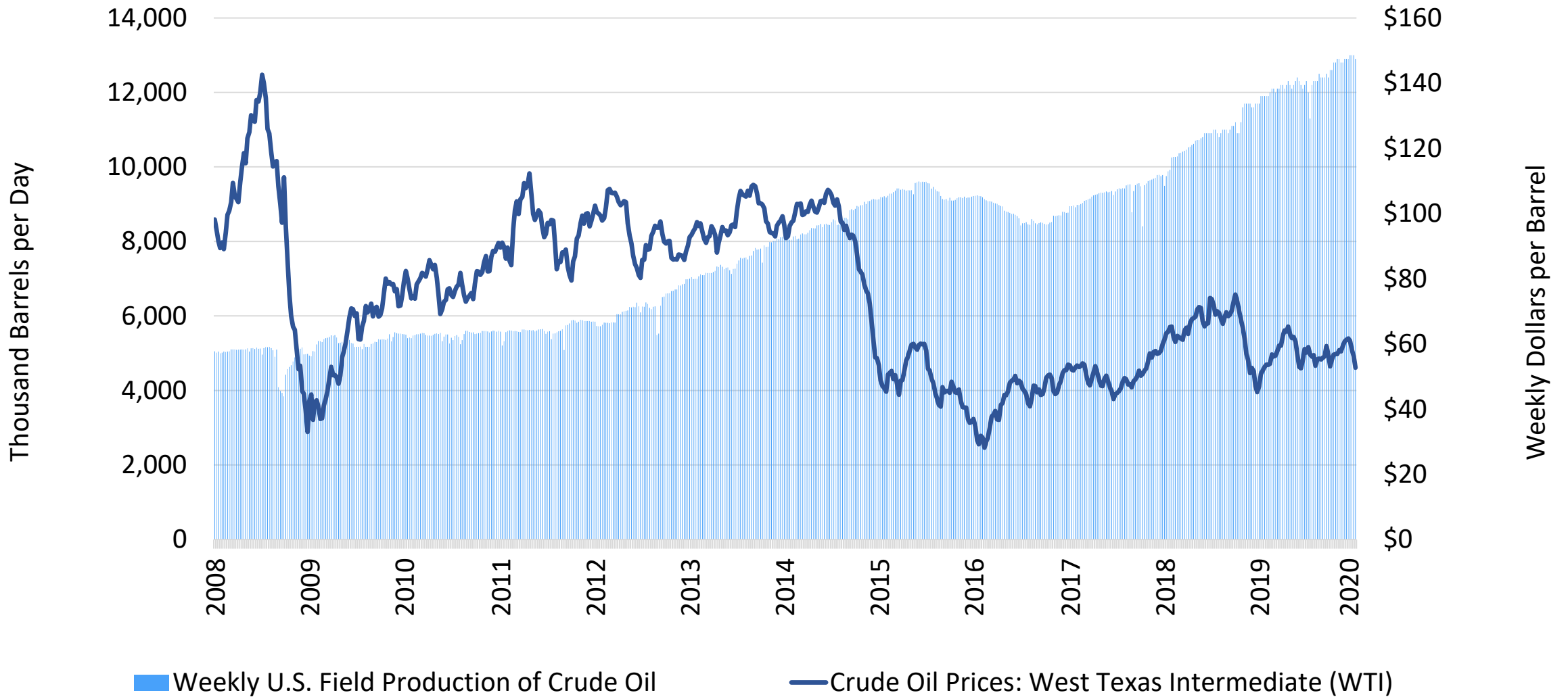


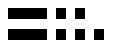
Inflation Rising, But Unlikely to Break Out >2.5%





Why Is There No Inflation? U.S. Oil Is Flooding the Market



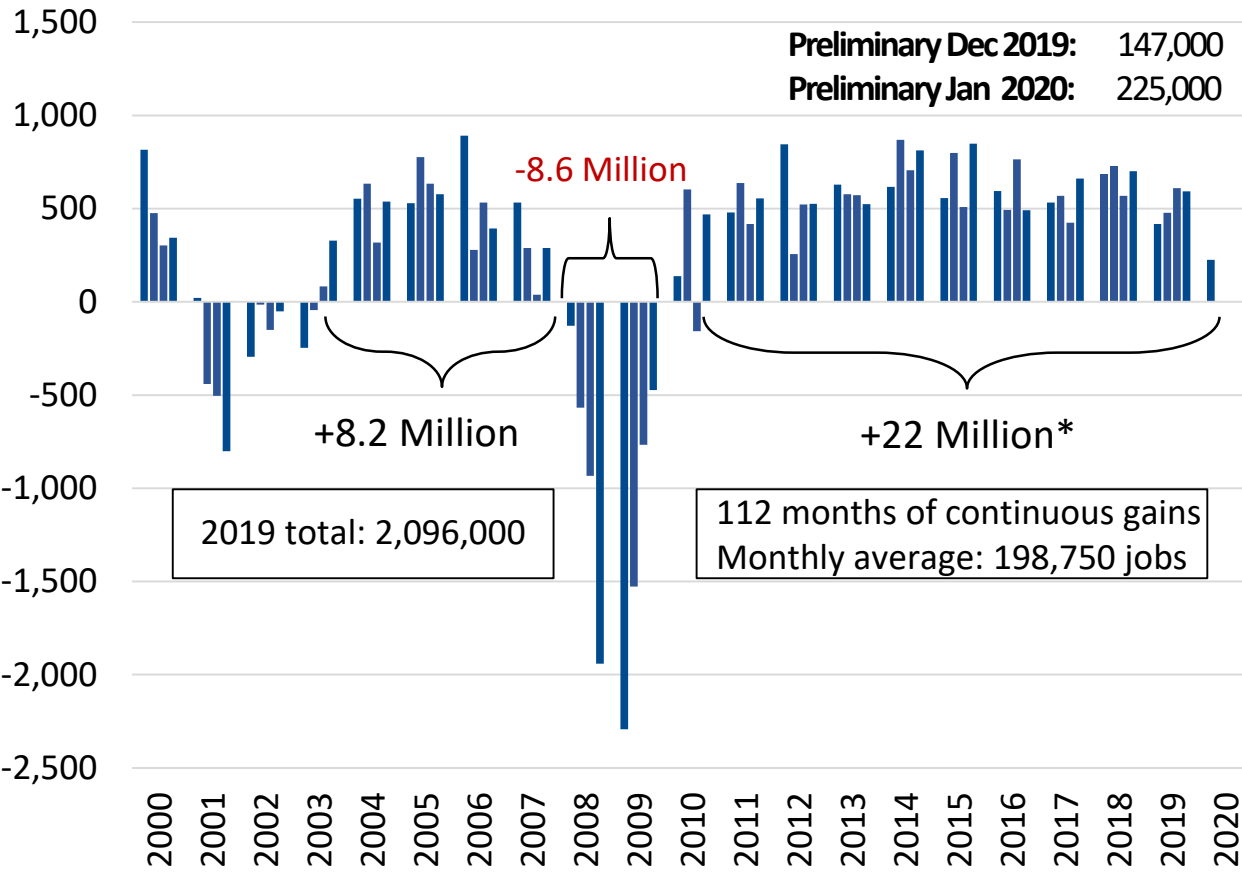


Tight Labor Market, Pulling People Off the Sidelines

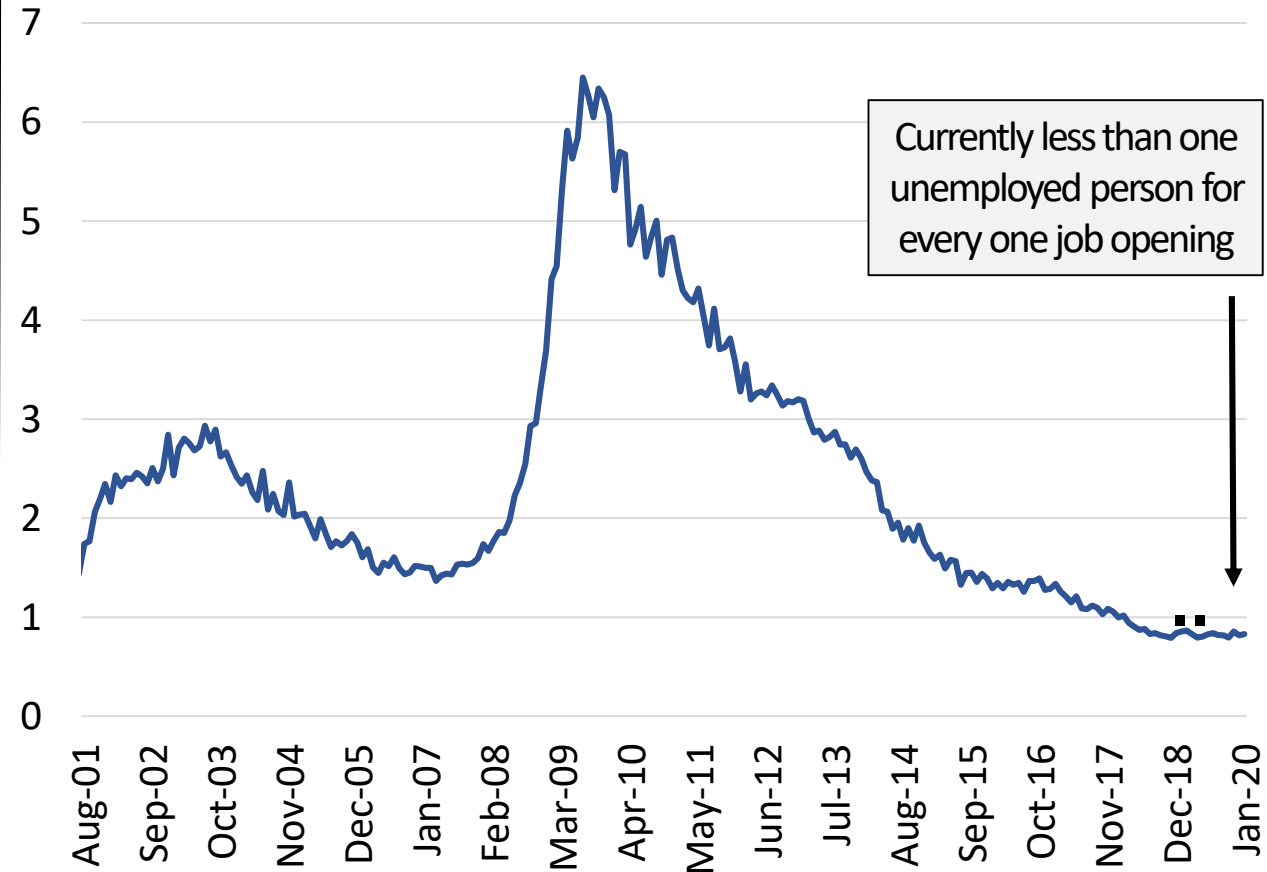


It is difficult to find labor at the right *price*, with the right *skills*, in the right *city*

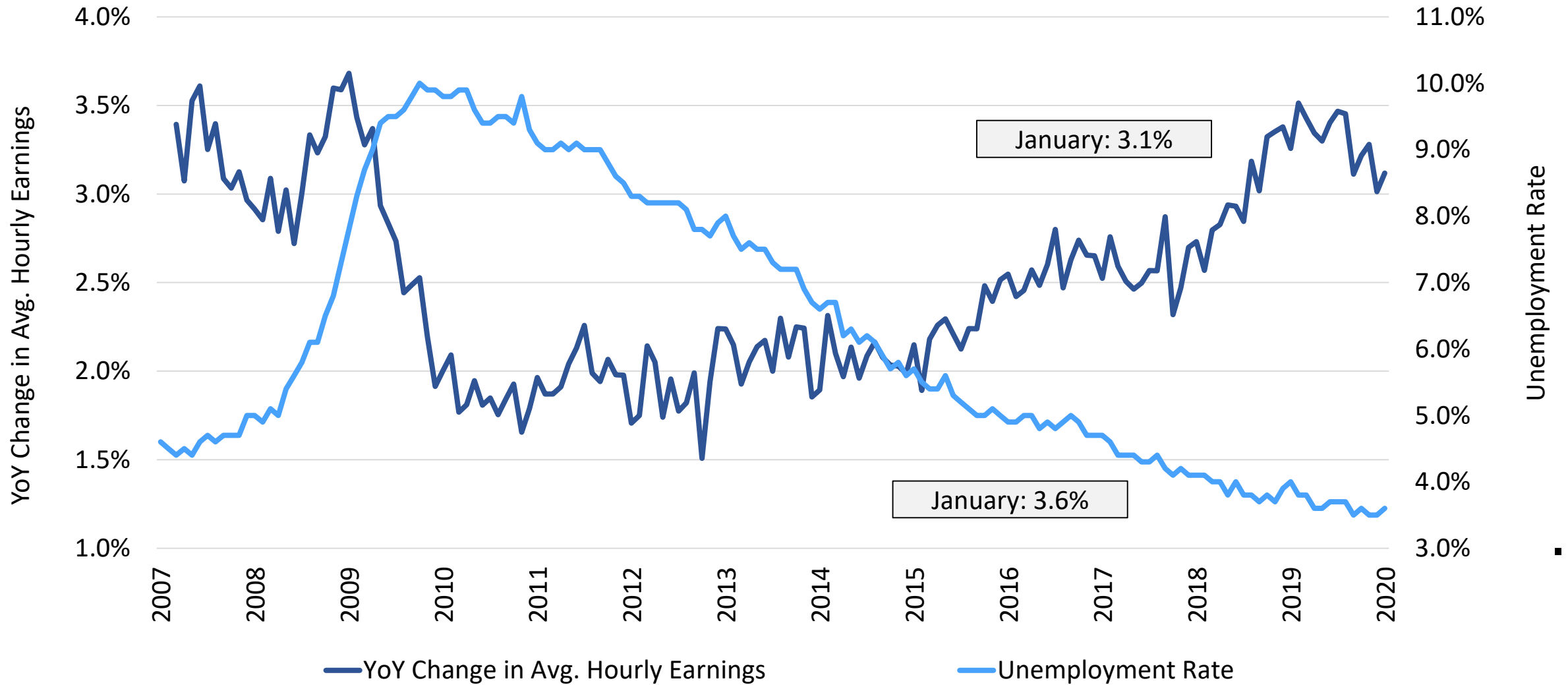
Long Stretch of Continuous Job Gains

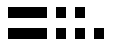


Unemployed Persons per Job Opening



Wage Growth Finally Emerging



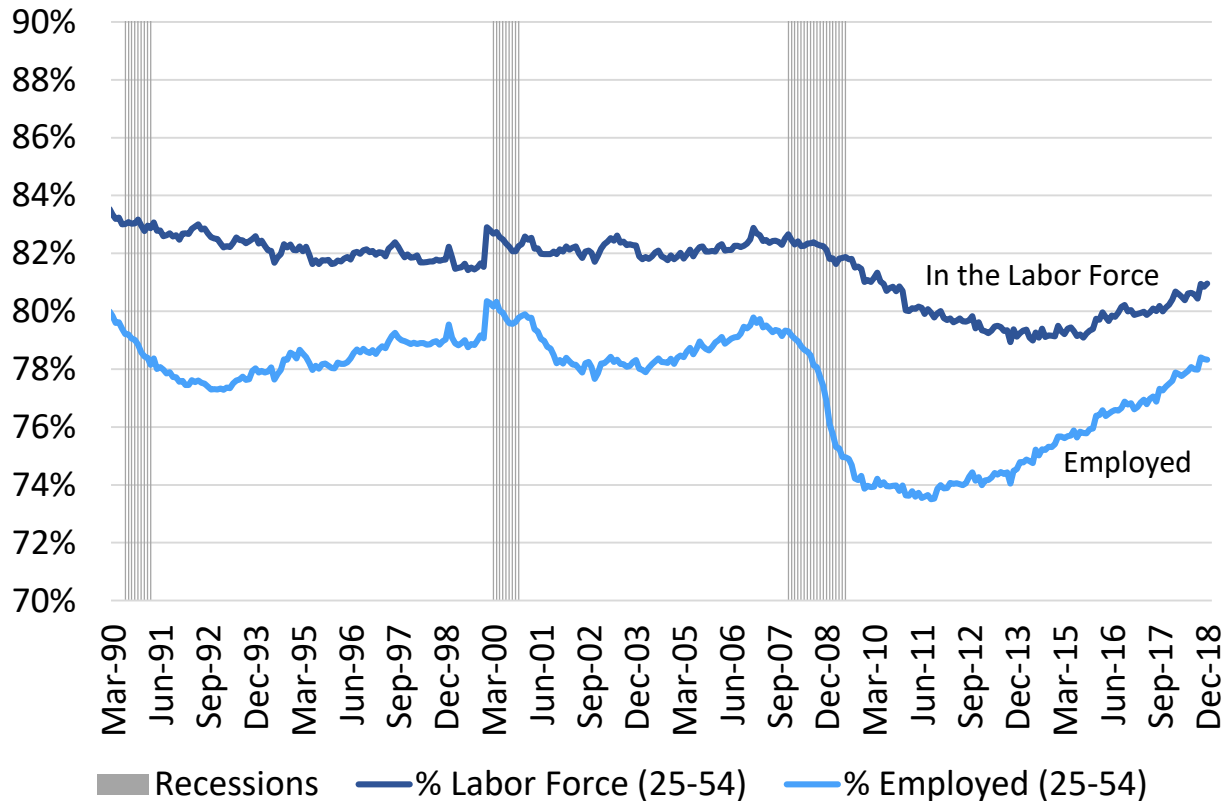


Reserve Supply of Labor

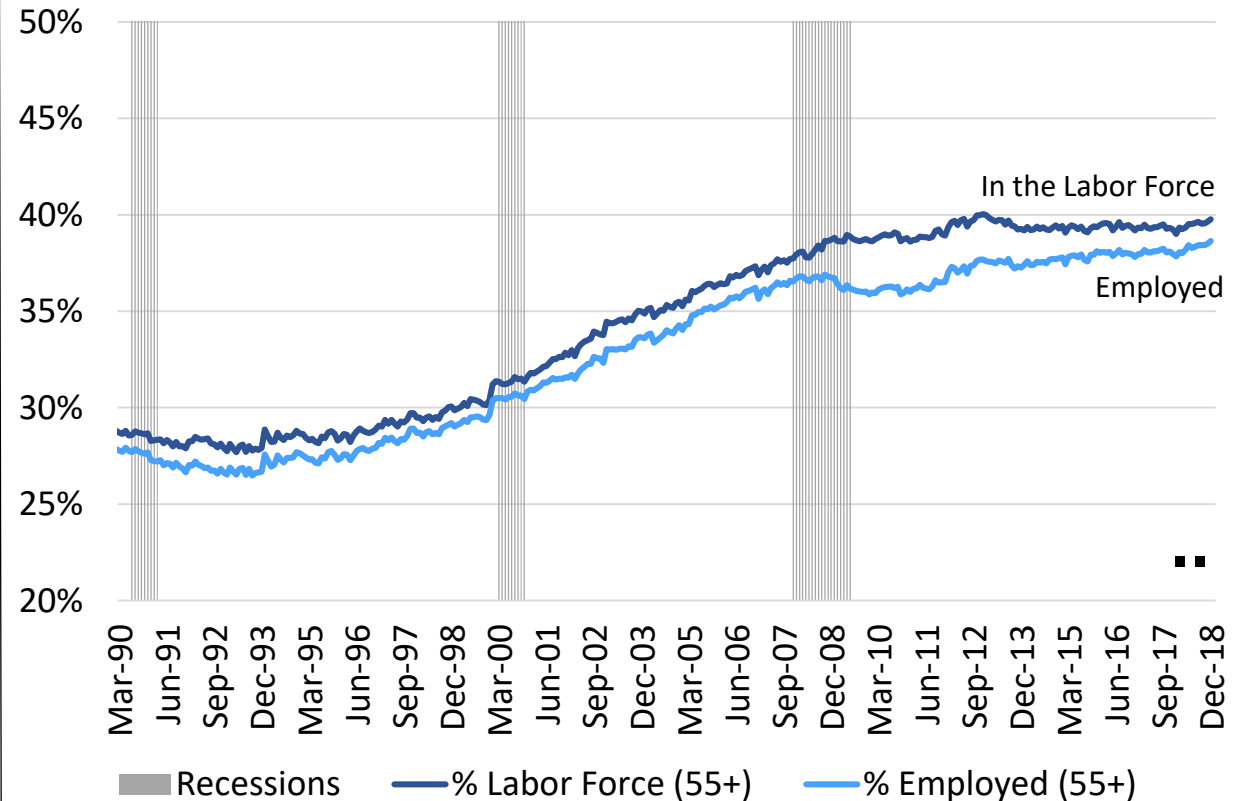


- Another 2.6% of the prime-age population could get engaged – approximately 3.4 million people
- Participation rates for people age 55+ are rising, buoying the expansion

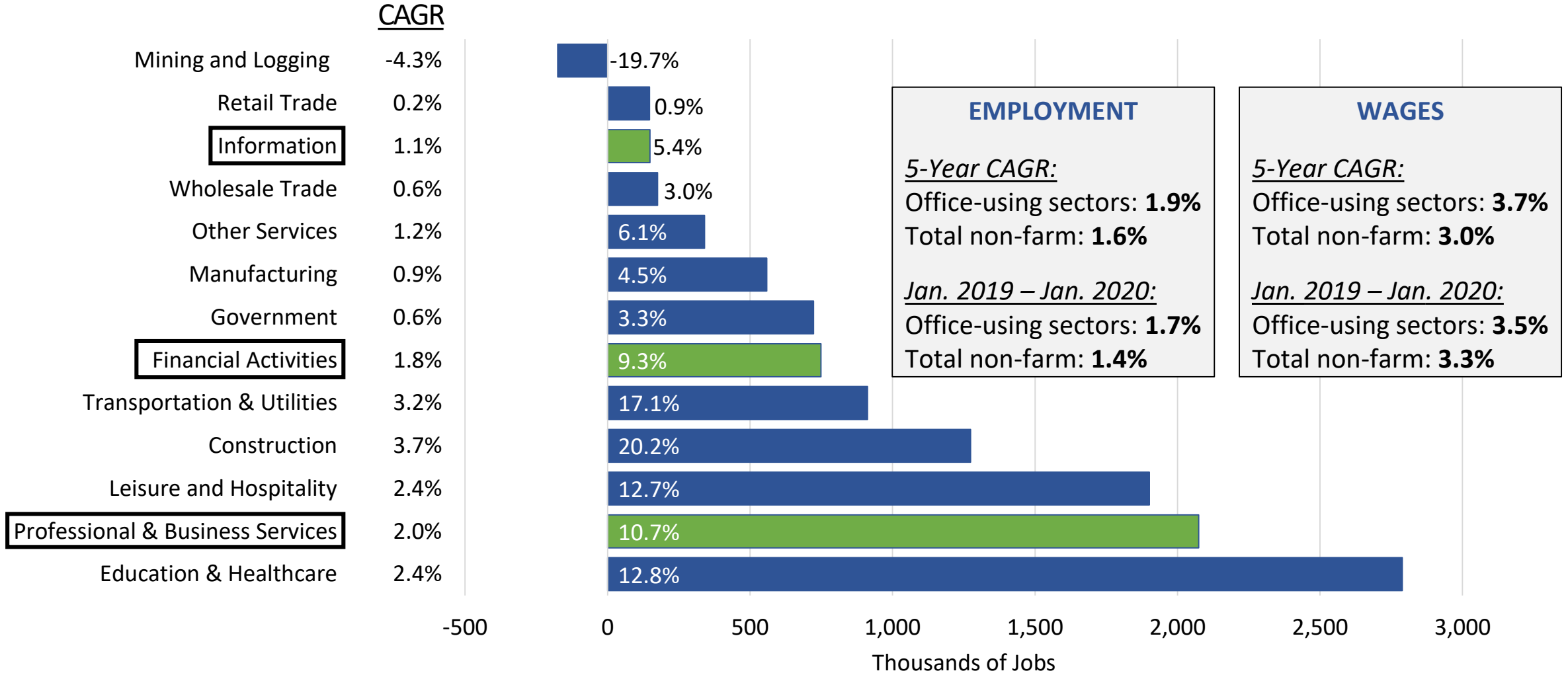
Share of Prime-Age Population (25-54) That Is...

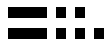


Share of Age 55+ Population That Is...



Office-Using Sectors Outpaced Overall Job Growth Over Last Five Years





SUMMARY



1

The U.S. economy is in decent shape, slow and steady growth will likely continue

2

Unemployment remains very low & wage growth is good; January job gains were strong

3

How much slack is left?

- Productivity
- Job growth

4

Inflation rising but not a lot, so the 10-yr rate is the binding constraint on the yield curve – which is currently slightly positive

5

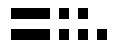
Risk of a recession appears to be pushed out further than 2021





MULTIFAMILY FUNDAMENTALS





Demographic & Lifestyle Changes

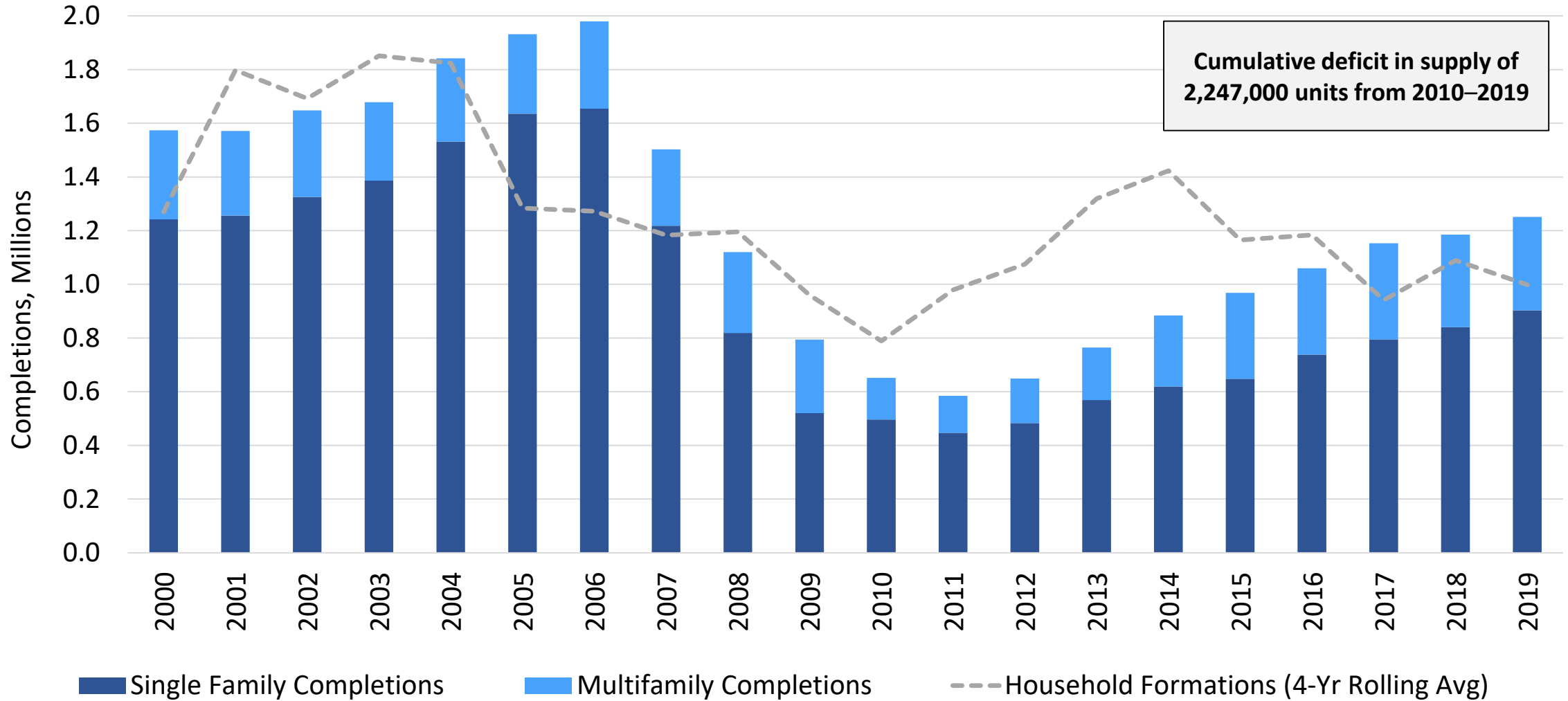


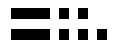
- Aging population
- Increasing divorce rates
- Young people living at home
 - Student debt burden
- Lifestyle changes
 - People getting married later in life
 - People having less kids and later in life

All of these in combination created a surge out of the recession,
but the effects seem to be durable



Multifamily Construction Catching Up to New Household Formation





Our Market Classifications



Gateway Markets	Tech Hub Markets	Tertiary Markets																														
<p>Bay Area Boston Brooklyn Chicago Long Island Los Angeles Manhattan New Jersey Queens San Francisco Washington, D.C</p>	<table><tbody><tr><td>Atlanta</td><td>Minneapolis-St. Paul</td></tr><tr><td>Austin</td><td>Nashville</td></tr><tr><td>Boise</td><td>Omaha</td></tr><tr><td>Charlotte</td><td>Orlando</td></tr><tr><td>Columbus</td><td>Philadelphia</td></tr><tr><td>Dallas</td><td>Phoenix</td></tr><tr><td>Denver</td><td>Pittsburgh</td></tr><tr><td>Detroit</td><td>Portland</td></tr><tr><td>Houston</td><td>Raleigh-Durham</td></tr><tr><td>Indianapolis</td><td>Sacramento</td></tr><tr><td>Jacksonville</td><td>Salt Lake City</td></tr><tr><td>Kansas City</td><td>San Diego</td></tr><tr><td>Las Vegas</td><td>Seattle</td></tr><tr><td>Madison</td><td>Tampa</td></tr><tr><td>Miami</td><td></td></tr></tbody></table>	Atlanta	Minneapolis-St. Paul	Austin	Nashville	Boise	Omaha	Charlotte	Orlando	Columbus	Philadelphia	Dallas	Phoenix	Denver	Pittsburgh	Detroit	Portland	Houston	Raleigh-Durham	Indianapolis	Sacramento	Jacksonville	Salt Lake City	Kansas City	San Diego	Las Vegas	Seattle	Madison	Tampa	Miami		<p>Remaining 77 Yardi Matrix markets</p>
Atlanta	Minneapolis-St. Paul																															
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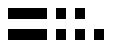


Population Growth Is in Non-Gateway Markets



Market	2016 Pop. Growth	2017 Pop. Growth	2018 Pop. Growth	Overall Trend
Austin	3.0%	2.6%	2.5%	Decelerating
Orlando	2.7%	2.4%	2.4%	Steady
Las Vegas	2.0%	2.0%	2.2%	Accelerating
Raleigh	2.6%	2.3%	2.1%	Decelerating
Phoenix	2.1%	1.8%	2.0%	Accelerating
Dallas	2.2%	2.1%	1.8%	Decelerating
Charlotte	2.1%	2.0%	1.8%	Decelerating
Tampa	2.2%	1.9%	1.7%	Decelerating
Nashville	2.1%	1.8%	1.6%	Decelerating
Salt Lake City	1.7%	1.7%	1.4%	Decelerating
Denver	1.6%	1.2%	1.4%	Accelerating
Seattle	2.0%	1.8%	1.4%	Decelerating
Houston	2.0%	1.4%	1.3%	Decelerating
Atlanta	1.8%	1.5%	1.3%	Decelerating
Columbus	1.2%	1.5%	1.2%	Decelerating

Market	2016 Pop. Growth	2017 Pop. Growth	2018 Pop. Growth	Overall Trend
Indianapolis	1.0%	1.1%	1.1%	Steady
Sacramento	1.3%	1.2%	1.1%	Decelerating
Minneapolis	1.0%	1.1%	1.0%	Steady
Portland	1.9%	1.2%	0.9%	Decelerating
Washington DC	0.9%	1.0%	0.8%	Decelerating
Boston	0.8%	0.8%	0.6%	Decelerating
Miami	1.3%	0.8%	0.6%	Decelerating
San Diego	0.8%	0.5%	0.5%	Steady
San Francisco	0.7%	0.4%	0.3%	Decelerating
Philadelphia	0.2%	0.2%	0.3%	Steady
San Jose	0.7%	0.2%	0.3%	Steady
Detroit	0.1%	0.1%	0.1%	Steady
Los Angeles	0.2%	0.0%	-0.1%	Decelerating
New York	0.1%	-0.2%	-0.2%	Steady/Negative
Chicago	-0.2%	-0.2%	-0.2%	Steady/Negative

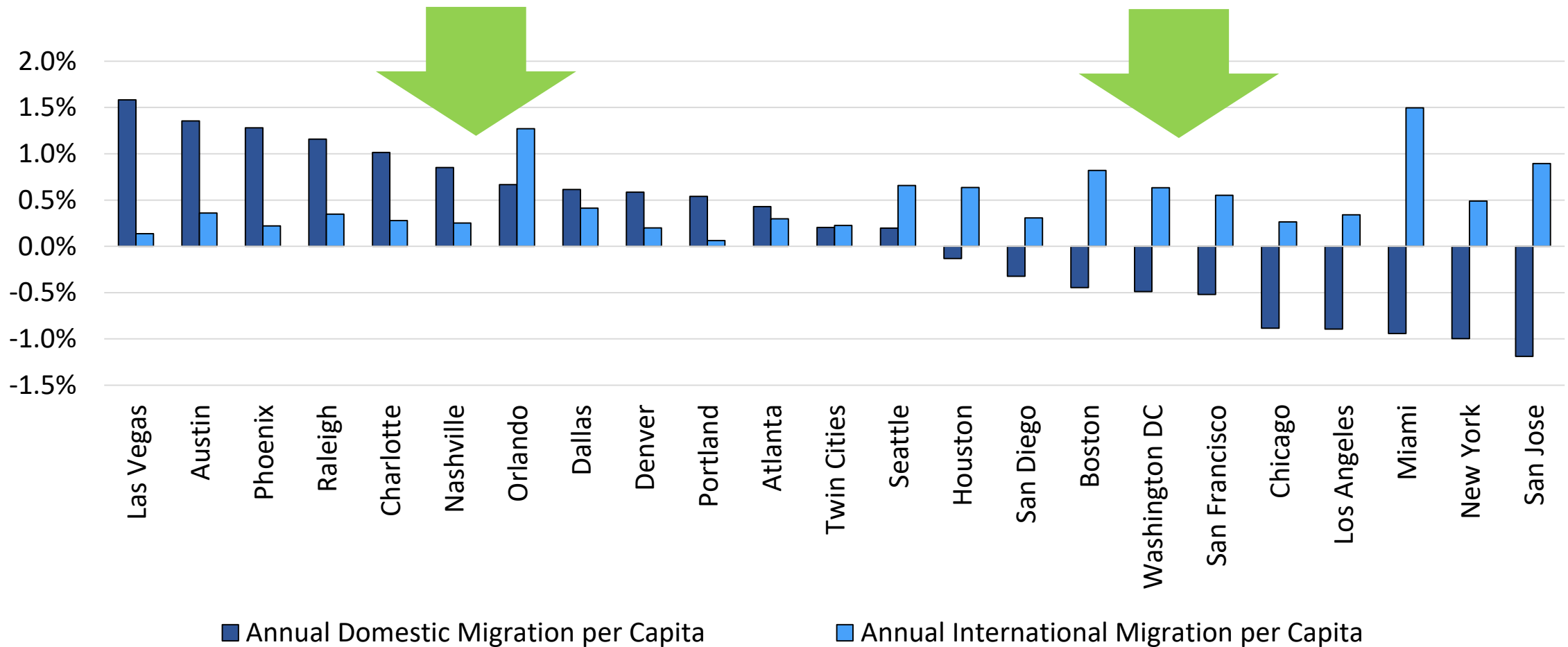


Immigration Is Key to Gateway Population Growth

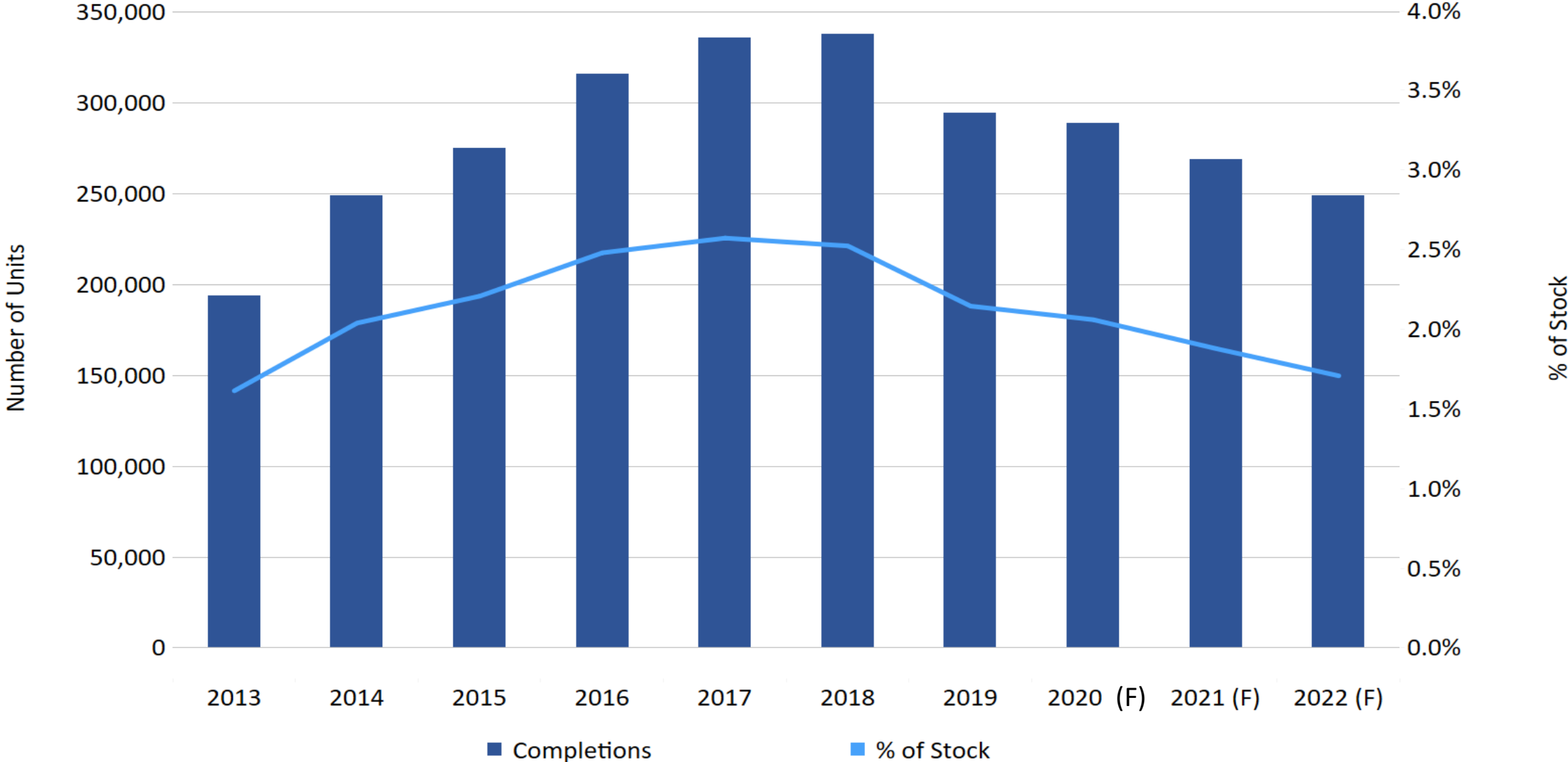


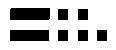
Tech Hub Markets:
High Migration, Modest Immigration

Gateway Markets:
High Immigration, Low/Negative Migration

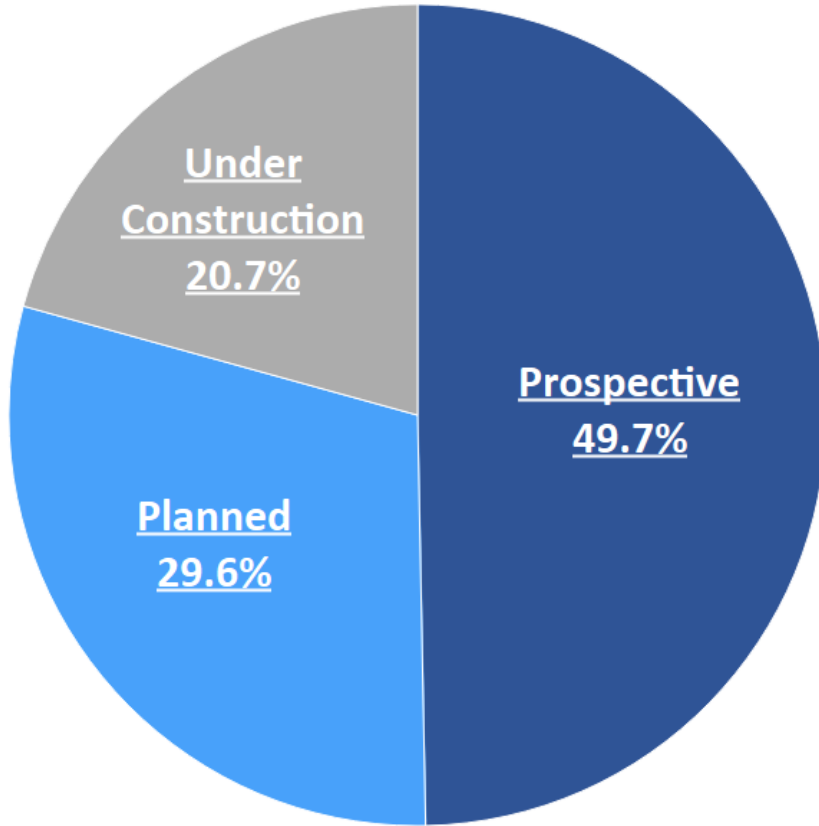


Current Factors Show New Supply Falling

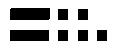




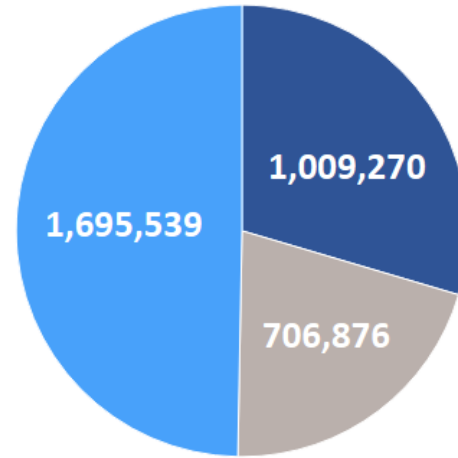
Based Upon What We See, New Multifamily Supply Is Unlikely to Break Out Above 300K a Year



Property Status	Units	% of Total
Prospective	1,695,539	49.7%
Planned	1,009,270	29.6%
Under Construction	706,876	20.7%
TOTAL:	3,411,685	100.0%



Where Is Future Multifamily Supply Concentrated?



■ Units Under Construction

■ Units Planned

■ Prospective Units

Top 10 Markets	Units	UC as a % of Existing Stock
Boise	2,809	14.5%
Miami	17,749	13.6%
Reno	4,221	10.9%
Salt Lake City	10,964	10.8%
Wilmington	2,128	10.8%
Austin	25,456	10.6%
Boston	23,991	10.6%
Metro Los Angeles	18,716	10.3%
Queens	9,843	9.8%
Pensacola	3,104	9.8%

Top 10 Markets	Units	Planned as a % of Existing Stock
SW Florida Coast	15,992	24.4%
Wilmington	4,780	24.2%
Urban Chicago	36,462	20.8%
Asheville	3,327	19.6%
Miami	25,451	19.5%
Northern New Jersey	41,202	18.6%
Orlando	38,210	17.5%
Ft Lauderdale	16,780	16.5%
White Plains	10,512	15.3%
Long Island	7,224	14.5%

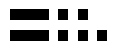
Top 10 Markets	Units	Prospective as a % of Existing Stock
Miami	88,170	67.4%
San Francisco	51,944	43.0%
Bay Area - South Bay	45,153	35.8%
SW Florida Coast	22,811	34.8%
Bay Area - East Bay	42,995	31.4%
Metro Los Angeles	55,172	30.4%
Northern Virginia	62,395	28.2%
West Palm Beach	18,079	27.0%
Washington DC	77,161	24.9%
Portland ME	3,221	24.8%

☰ Tech Hubs Are Delivering in Excess of Their 10-Year Average ☺

Top 15 Markets With the Most 2019 Deliveries	Units Delivered 2019	Ratio of 2019 Deliveries to the 10-yr Average	Avg. Annual Deliveries 2020-2024 (F)
Dallas - North	14,717	1.68x	12,067
Denver	12,464	1.77x	10,214
Seattle	11,012	1.46x	10,555
Atlanta - Urban	9,044	1.82x	5,751
Phoenix	8,874	1.73x	7,381
Charlotte	8,264	1.76x	7,497
Austin	8,252	1.07x	8,532
Miami	7,714	2.29x	5,467
Washington DC	7,680	1.23x	7,797
Houston - West	7,525	0.75x	6,469
Orlando	7,163	1.63x	5,579
Chicago - Urban	6,691	1.68x	5,429
Metro Los Angeles	6,319	1.61x	3,541
Boston	6,001	1.38x	6,289
Fort Worth	5,870	2.10x	2,814

Dallas, Denver & Seattle Absorbed a Large Amount of Deliveries, Despite Heavy Supply Pipelines

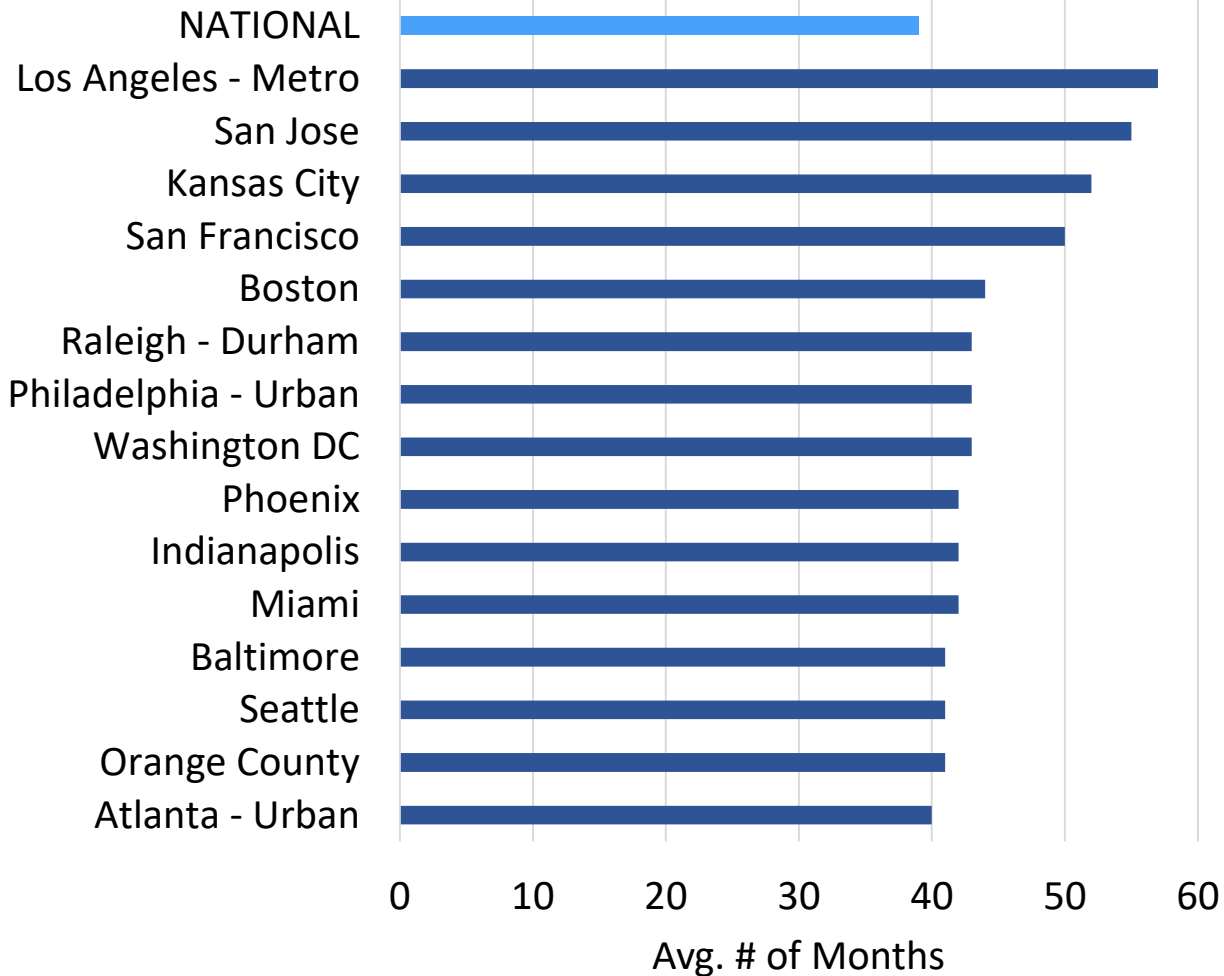
Market	Units Delivered 2019	Units Absorbed 2019	Difference	Units Absorbed as a % of Existing Stock
Dallas - North	14,717	14,621	(96)	4.1%
Denver	12,464	11,308	(1,156)	4.1%
Seattle	11,012	10,630	(382)	4.2%
Atlanta - Urban	9,044	7,482	(1,562)	3.2%
Phoenix	8,874	7,380	(1,494)	2.4%
Charlotte	8,264	7,604	(660)	4.3%
Austin	8,252	8,295	43	3.5%
Miami	7,714	7,536	(178)	5.8%
Washington DC	7,680	7,109	(571)	2.3%
Houston - West	7,525	7,602	77	1.7%
Orlando	7,163	5,723	(1,440)	2.6%
Chicago - Urban	6,691	6,353	(338)	3.6%
Metro Los Angeles	6,319	5,477	(842)	3.0%
Boston	6,001	6,064	63	2.7%
Fort Worth	5,870	4,175	(1,695)	2.0%



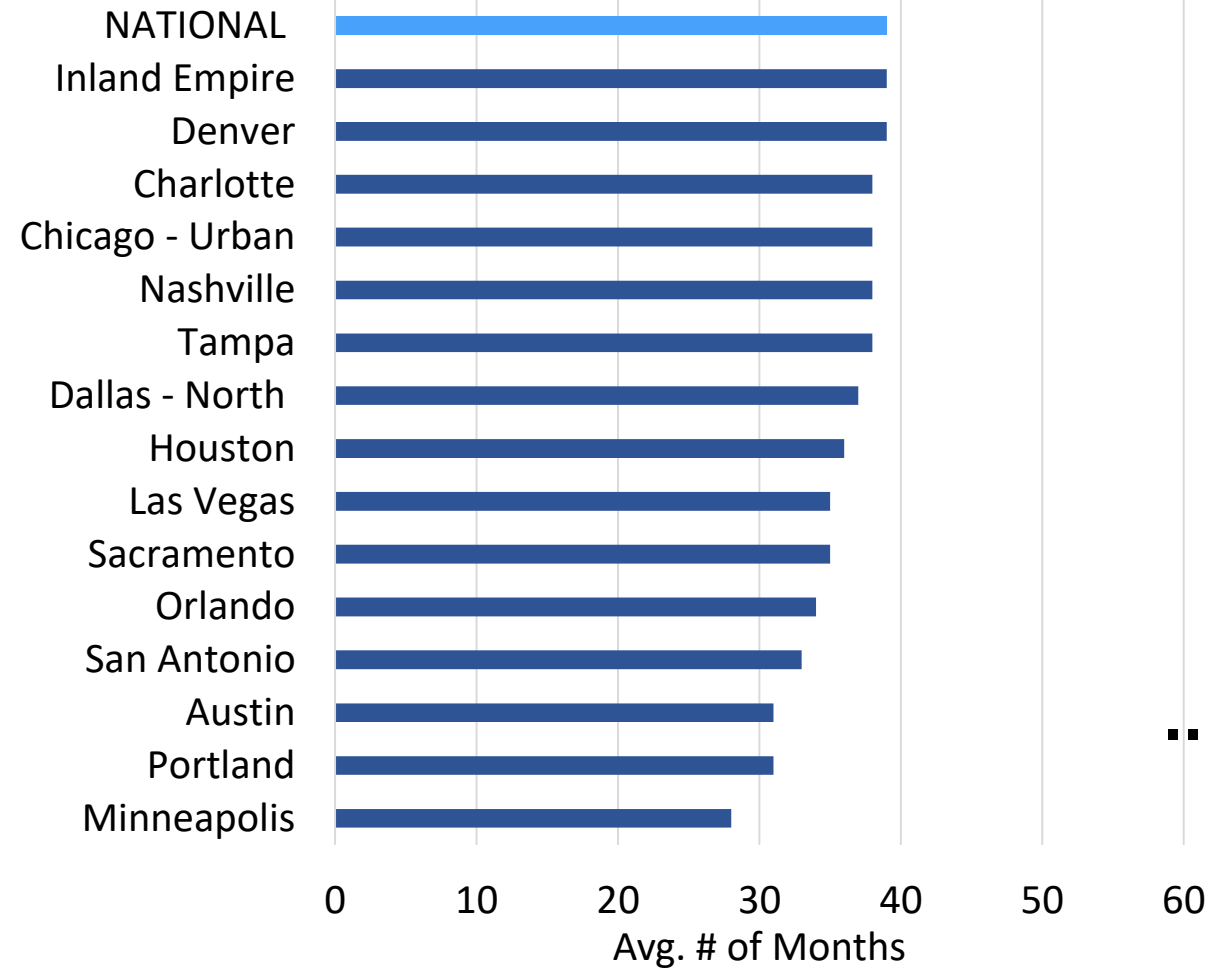
Gateway Markets Have the Longest Total Cycle Time



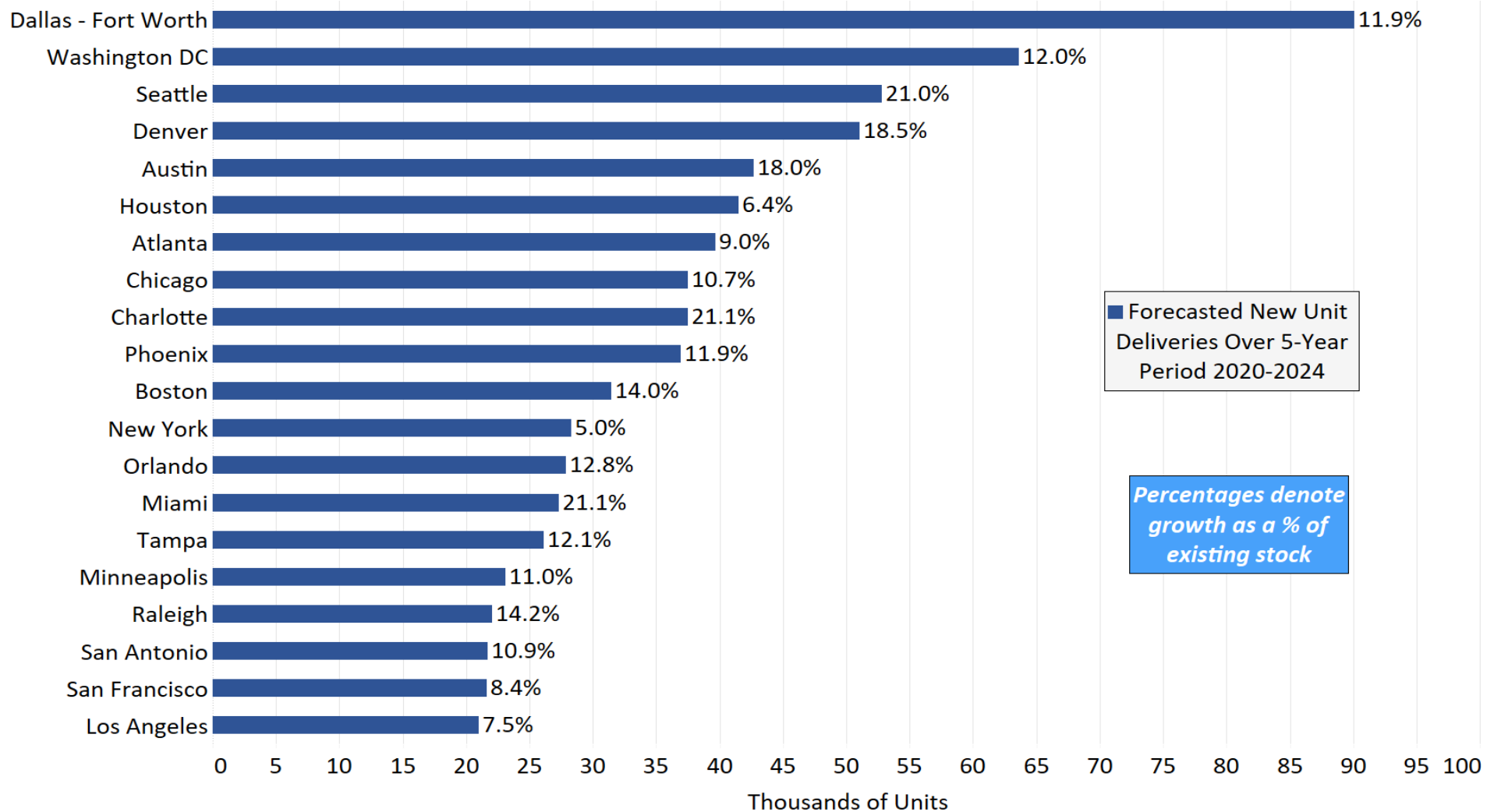
Highest Duration (Planned-to-Under Construction-to-Completed)



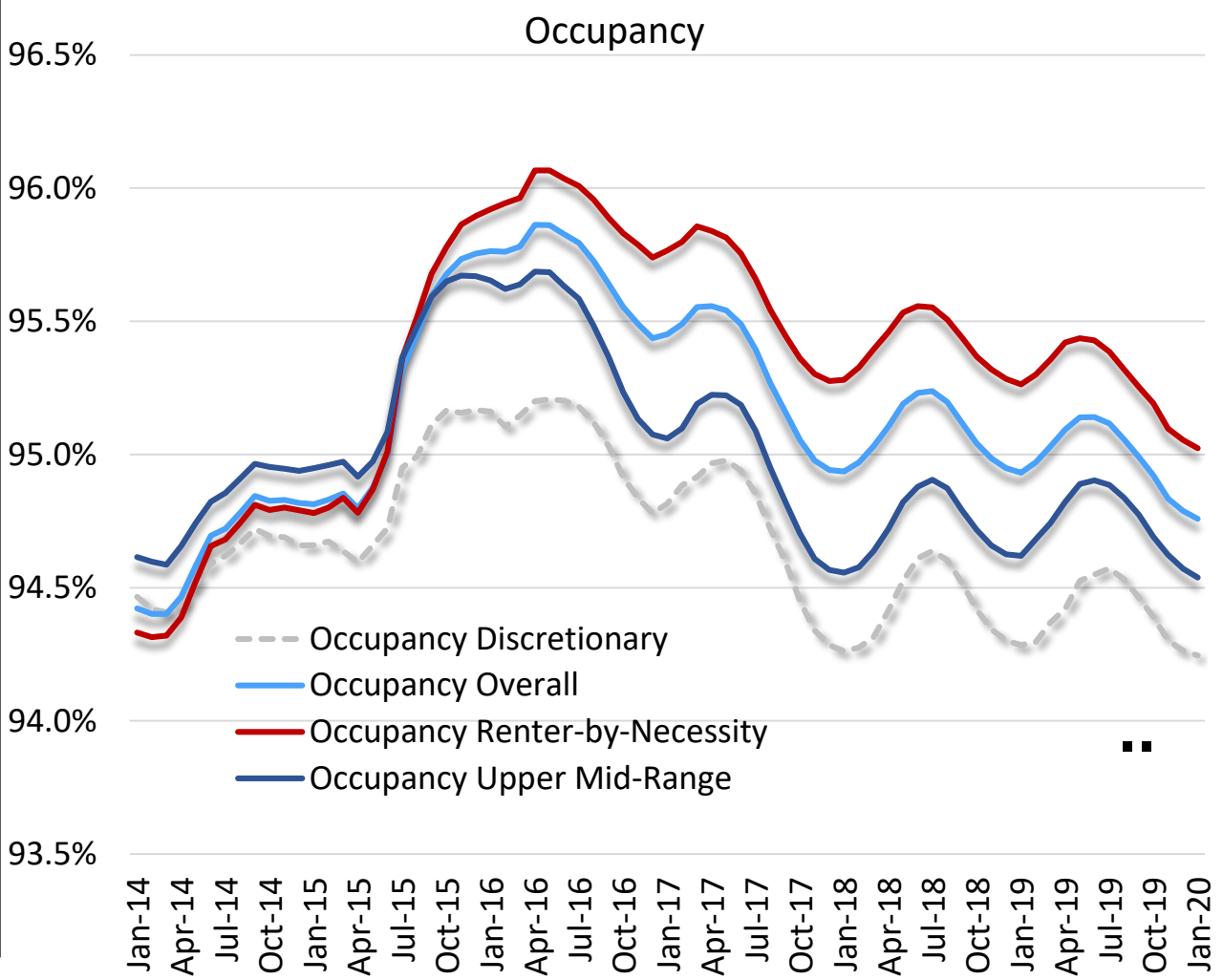
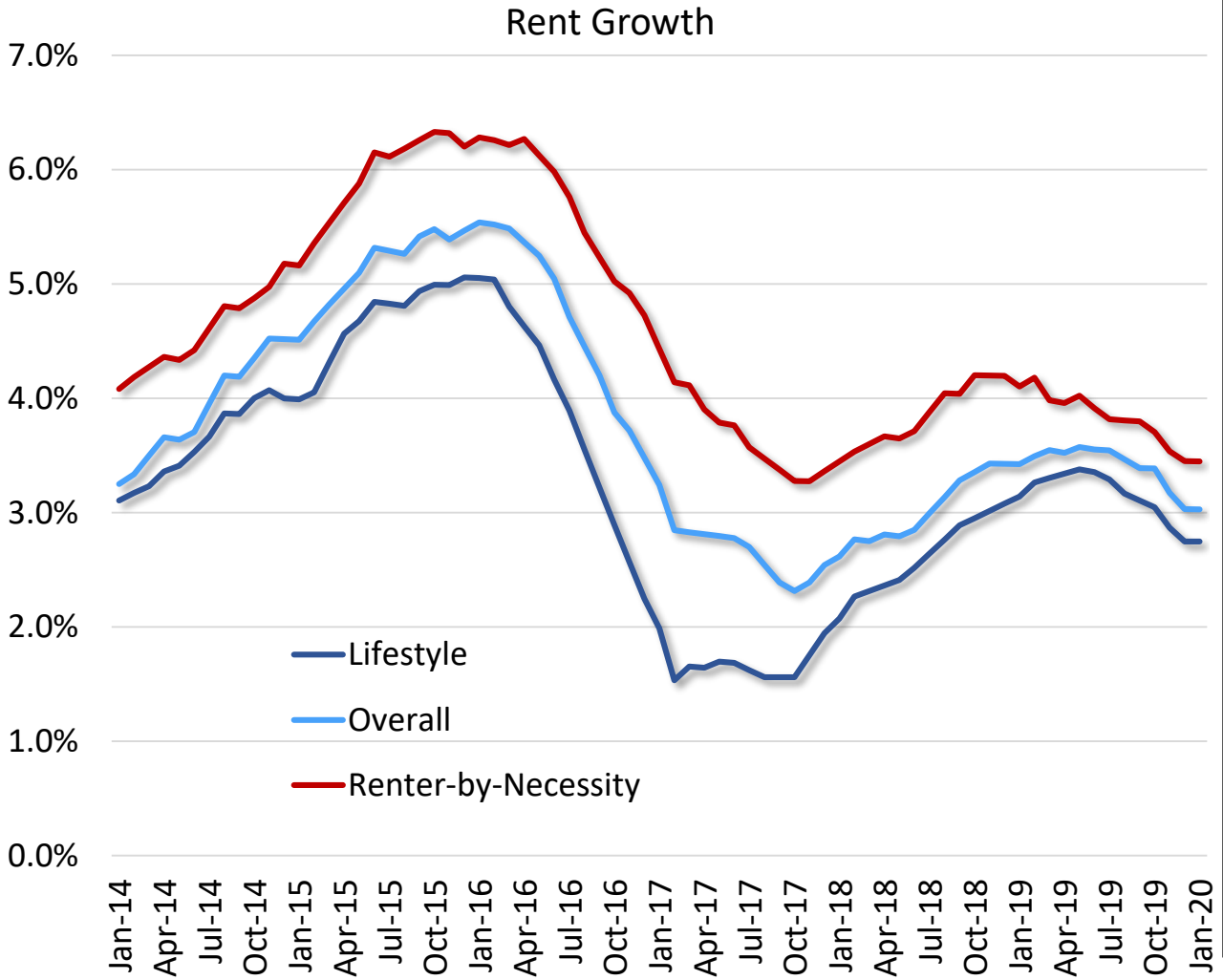
Lowest Duration (Planned-to-Under Construction-to-Completed)

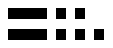


Our New Supply Forecast Shows Influx of New Supply Coming in Dallas, Washington, D.C. & Seattle

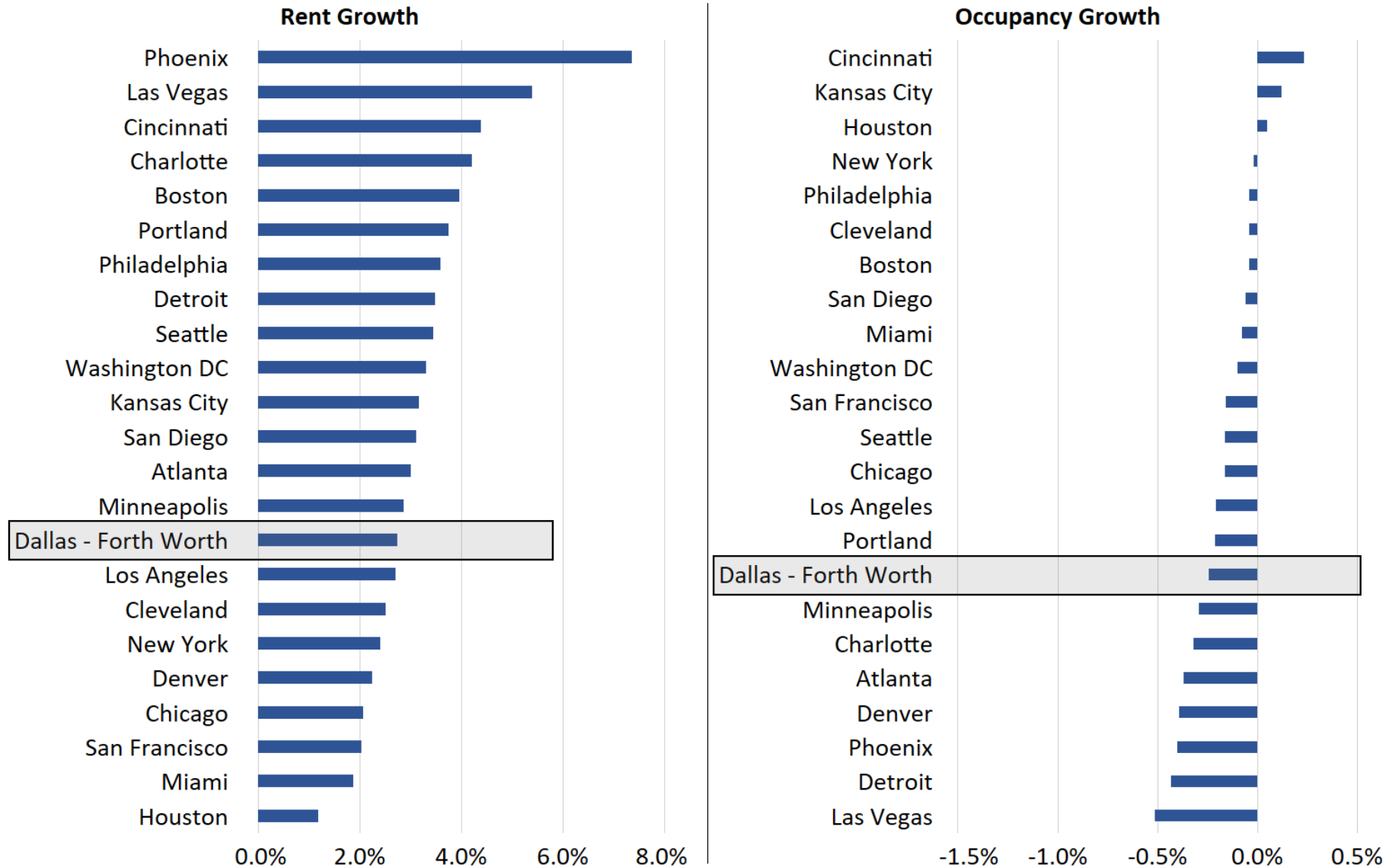


Multifamily Rent Growth Has Fallen While Occupancy Levels Off



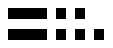


Major Market Multifamily Rent & Occupancy Growth

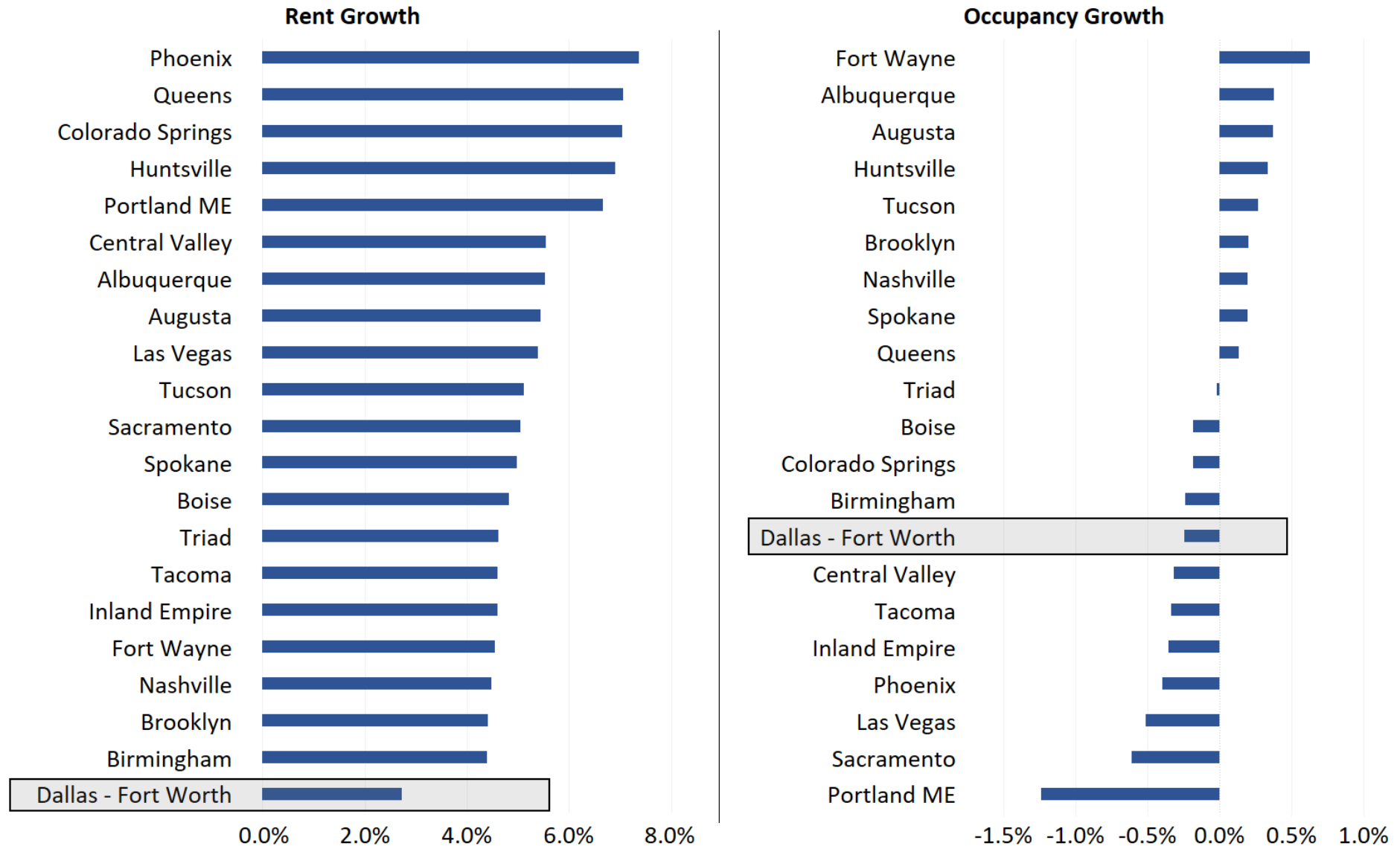


*Rent and Occupancy Growth January 2019 to January 2020

Source: Yardi Matrix; Tableau

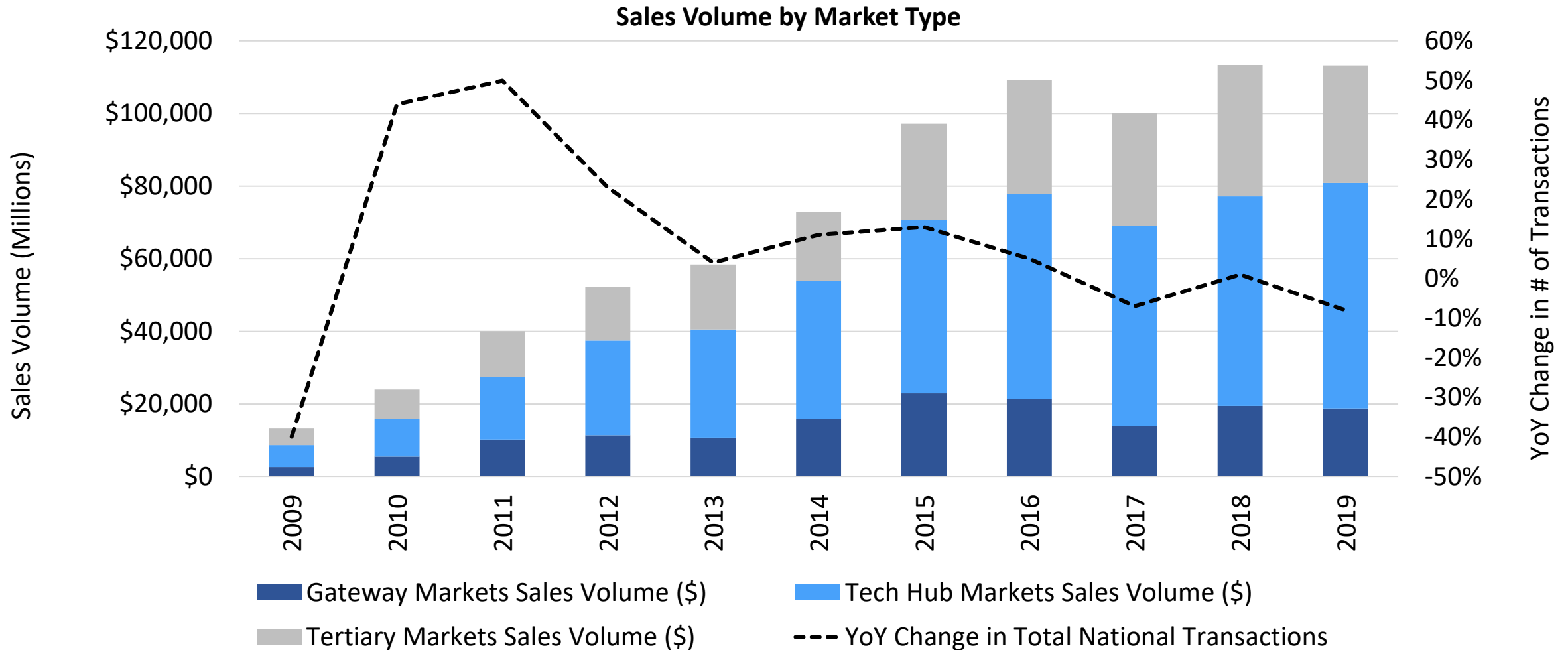


Ranked Multifamily Rent & Occupancy Growth



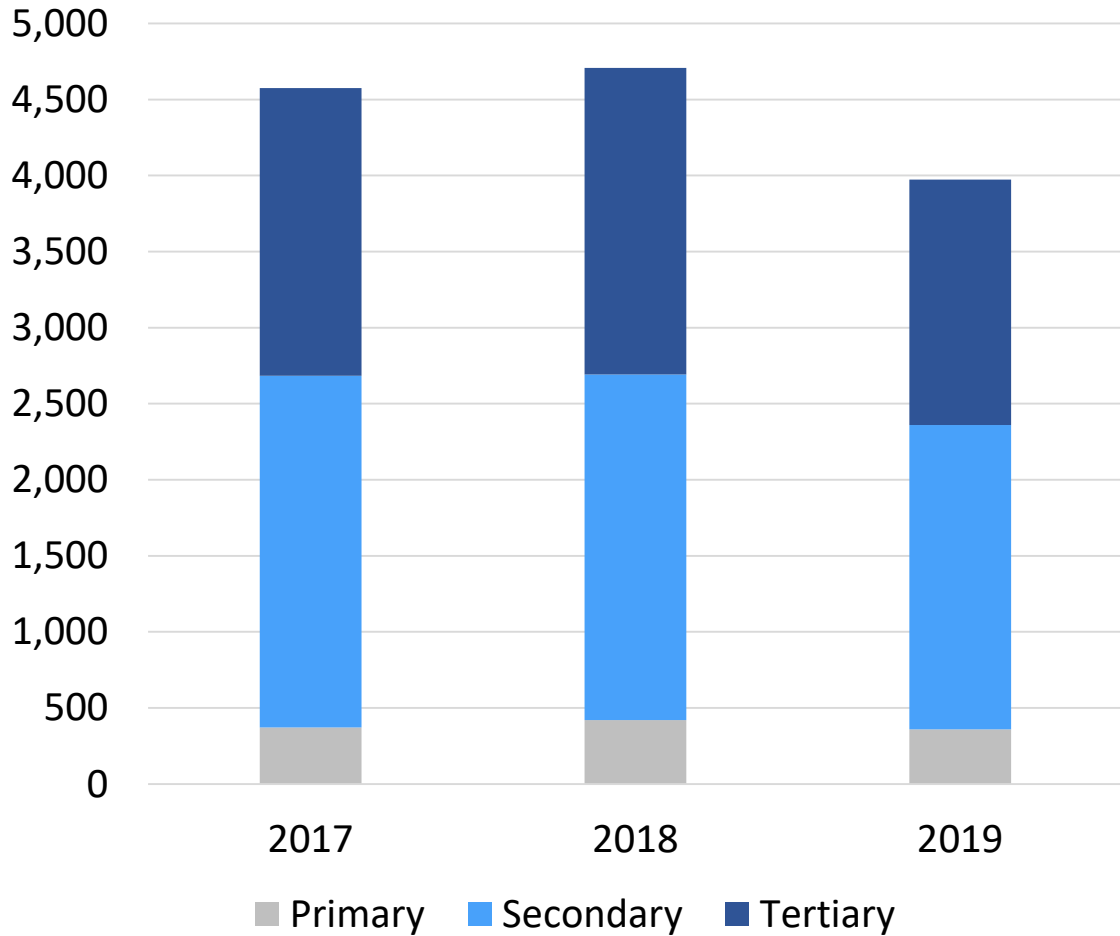


Multifamily Transactions Fairly Stable Over Past Five Years, But With Higher Dollar Amounts

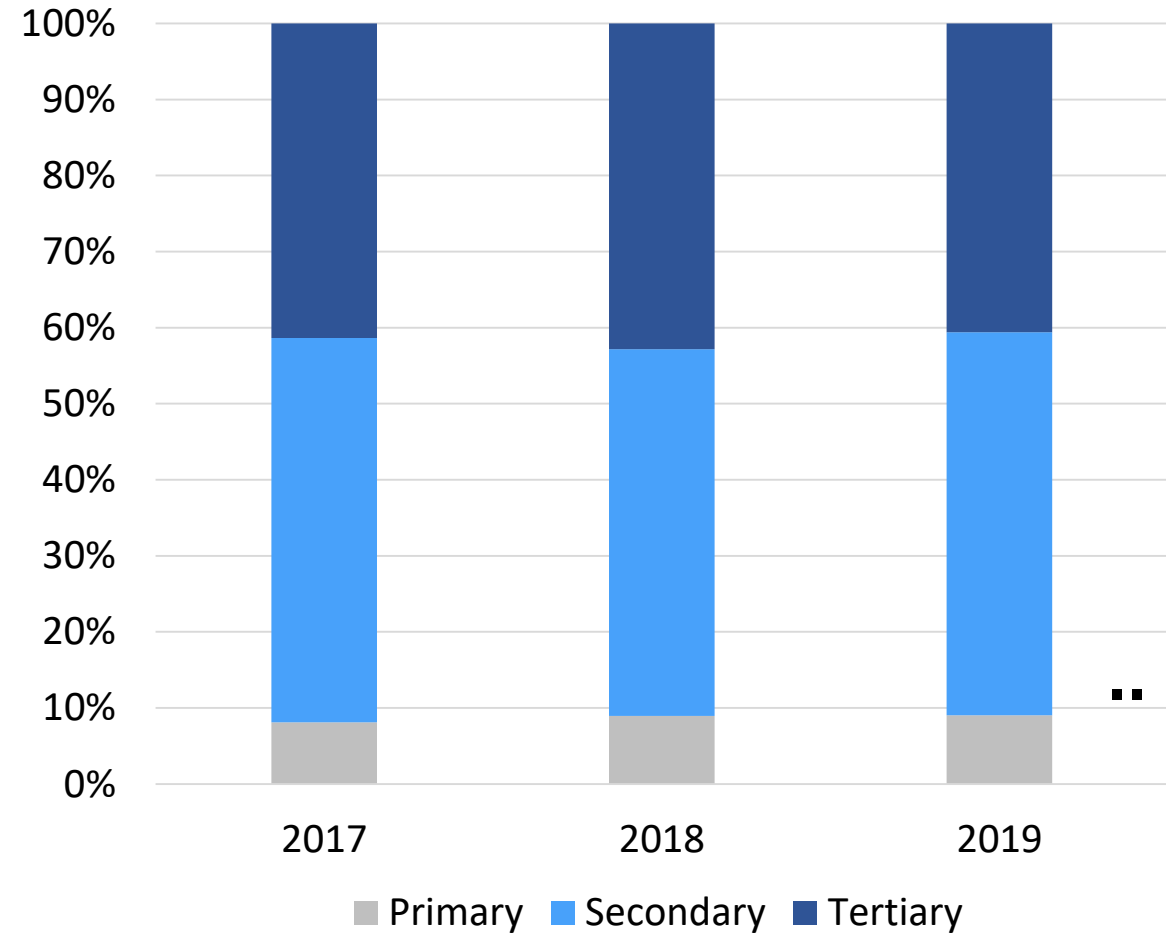


Multifamily Sales Are Concentrated in Tech Hub & Tertiary Markets

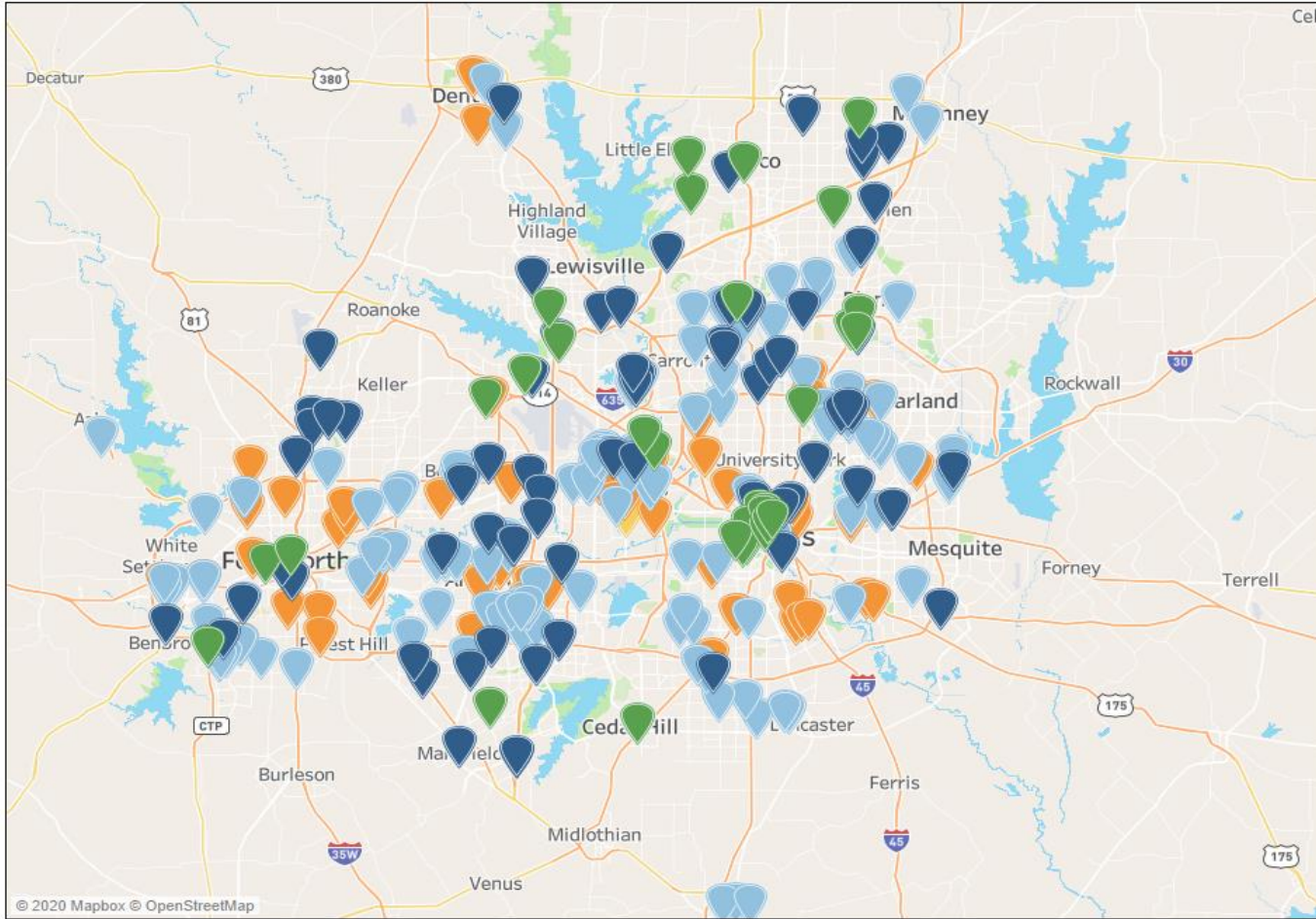
Properties Sold by Market Type



% of Properties Sold by Market Type



Dallas Multifamily Transaction Composition in 2019

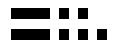


Property Asset Class

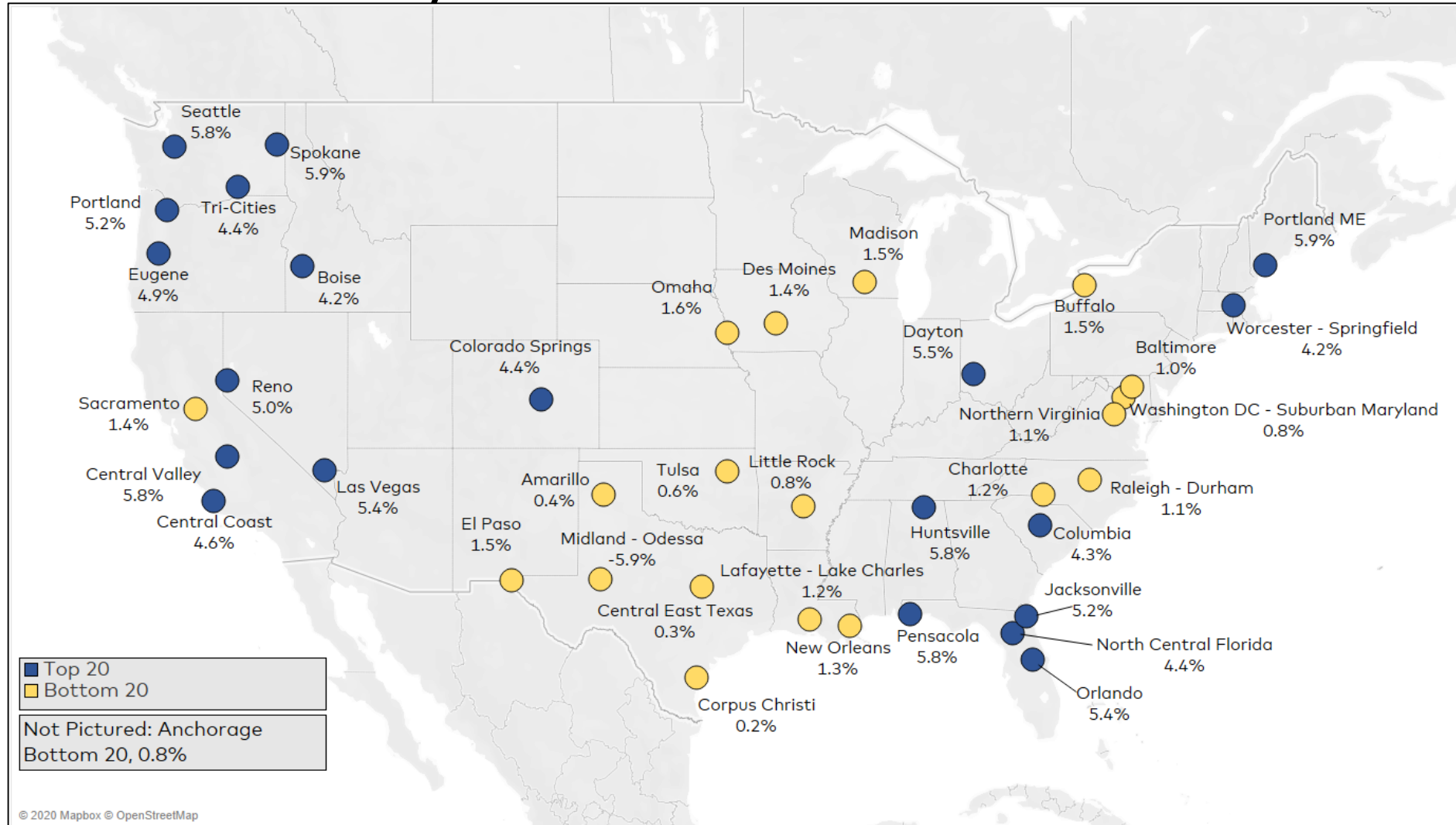
- Discretionary
- Low Mid-Range
- Workforce - Lower
- Upper Mid-Range
- Workforce - Upper

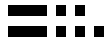
2019 Transactions		
	#	% of Stock
Properties Sold	311	9.9%
Units Sold	72,676	9.9%

2019 Sales Prices		
	Dallas - Fort Worth	National
Avg. Sales Price per Unit	\$120,298	\$155,916
Avg. Sales Price per Unit for Low Mid-Range Assets	\$100,598	\$129,270
1-Year Sales Price Growth for Low Mid-Range Assets	5.4%	8.4%
5-Year Sales Price Growth for Low Mid-Range Assets	89.5%	50.7%



Western & Sunbelt Markets Will Have Most Multifamily Rent Growth Over the Next Year





SUMMARY



1

Demand is strong, but there are constraints on supply due to construction delays & financing – national supply growth is expected to steadily drop through 2024

2

Rent growth continues to hum along, with lower asset classes outperforming; our rent forecast for 2020 shows strong performance in the northwest & southeast regions

3

Sales prices continue to rise, & most transactions occur in tech hub & tertiary markets, where population is also growing

4

Our new supply forecast shows Dallas, Washington, D.C. & Seattle topping the list for the most deliveries expected between 2020 to 2024

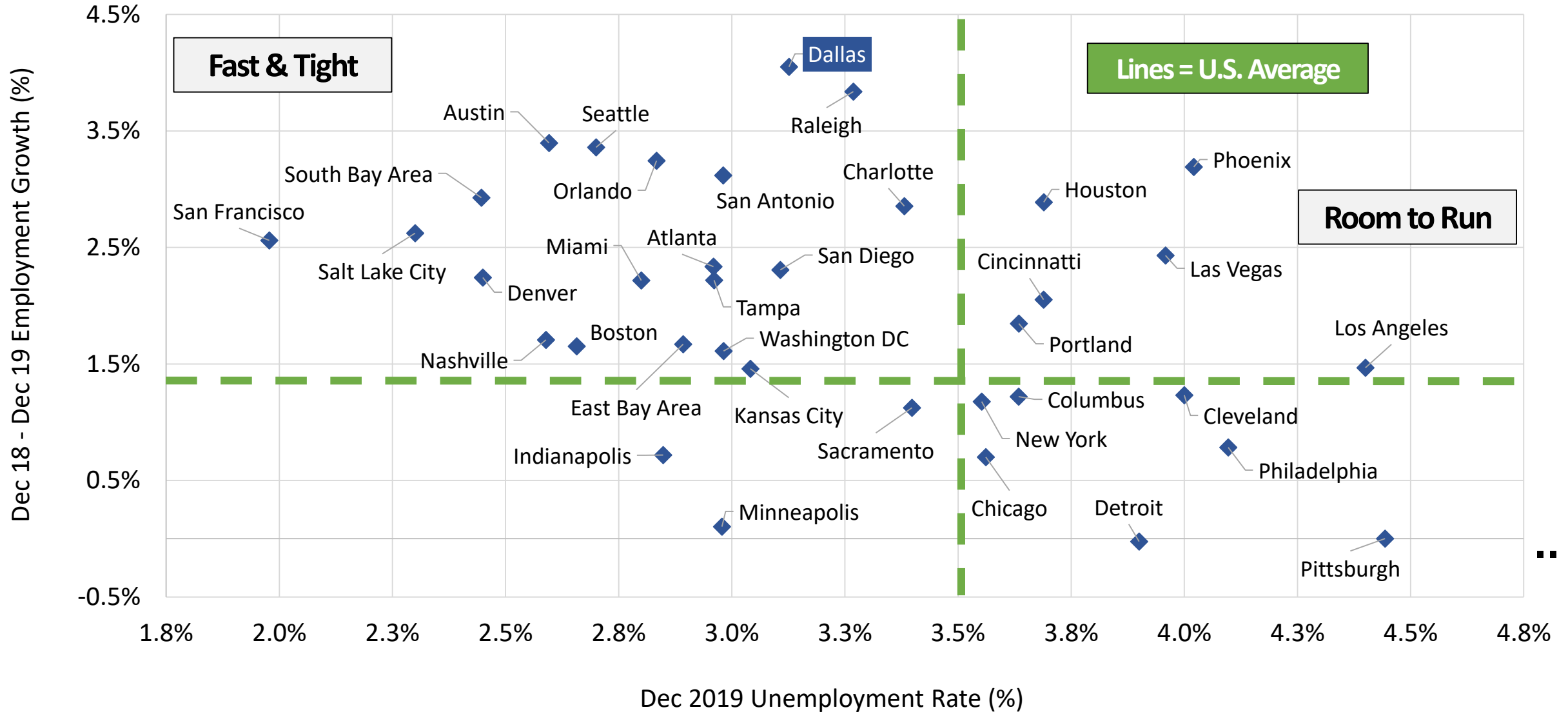


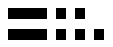


OFFICE FUNDAMENTALS



Tech Hub Markets Have Most Dynamic Job Growth

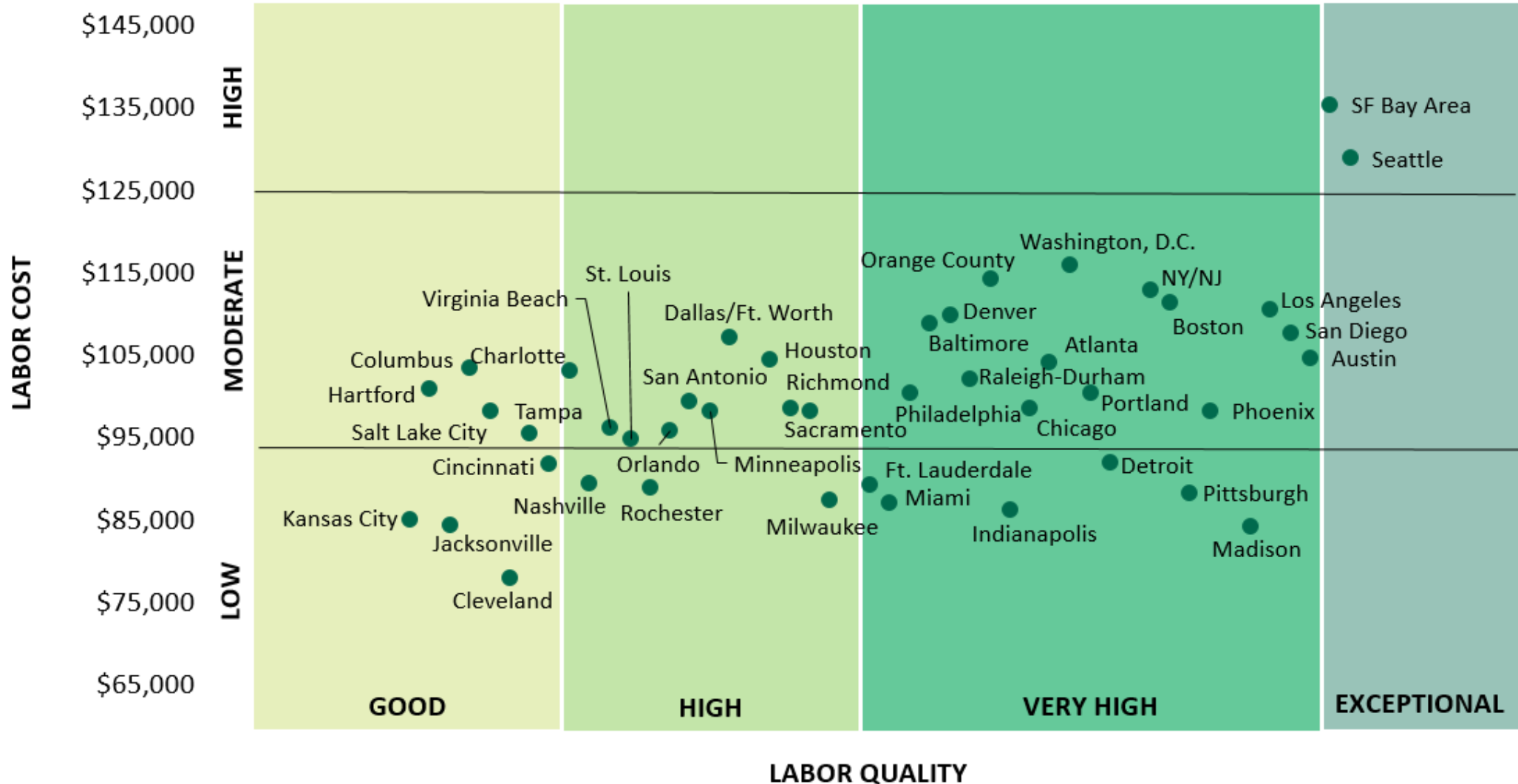




Tech Talent Quality vs. Cost Analysis



Average Annual Salary for Software Engineer (USD)



Office Fundamentals Improving in Tech Hub Markets

Top 10 Markets

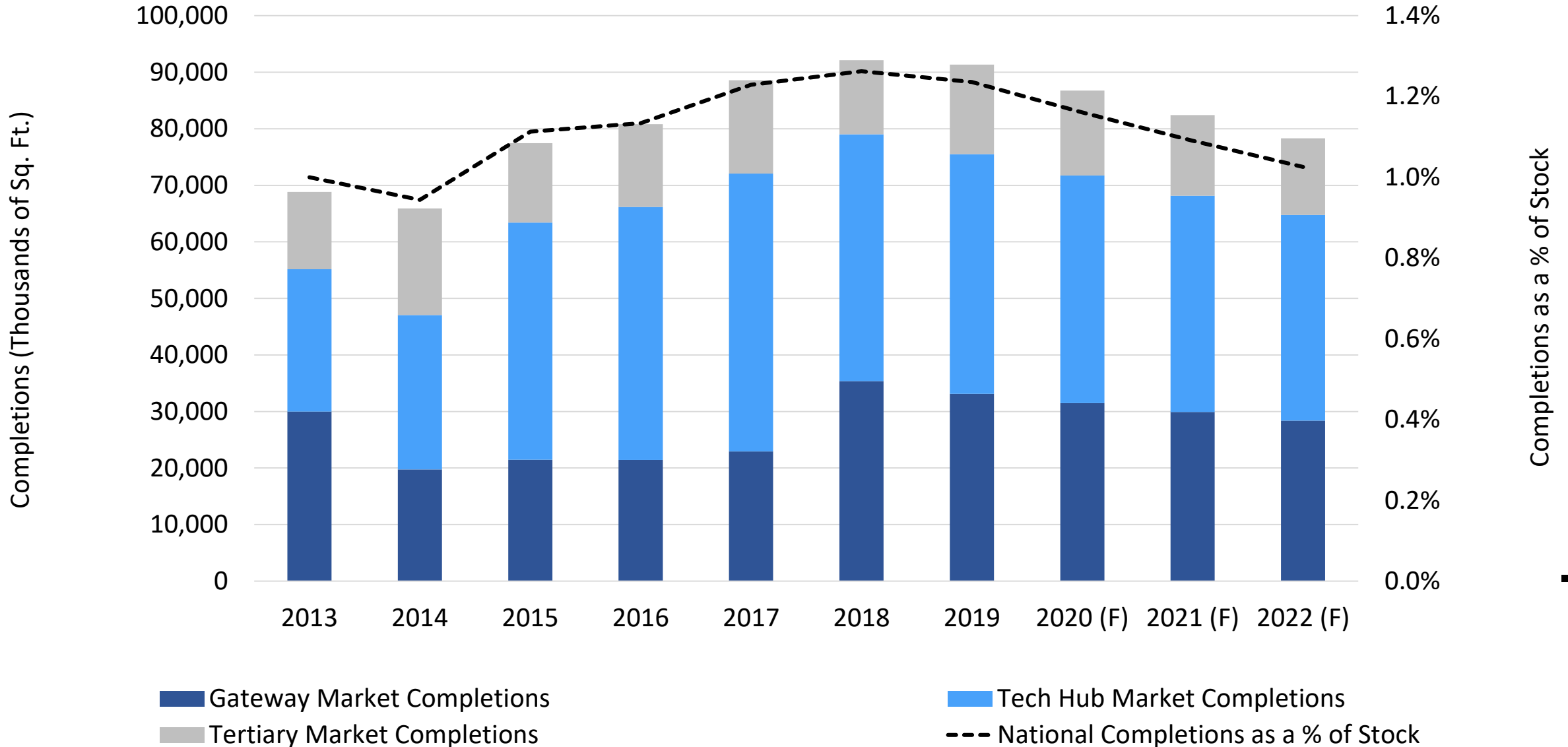
Market	Same Store 12-Month Change in Full-Service Equivalent Asking Rents	12-Month Change in Vacancy Rate	January Full-Service Equivalent Asking Rent	January Vacancy Rate	New Supply as a % of Stock Last 12 Months
Manhattan	13.4%	-1.4%	\$85.8	7.7%	1.2%
San Francisco	8.8%	-0.9%	\$71.0	7.5%	2.8%
Tampa - St Petersburg	6.7%	-0.3%	\$29.7	10.9%	0.9%
Atlanta	5.0%	0.0%	\$27.6	15.8%	1.6%
Charlotte	4.5%	-0.3%	\$28.4	10.3%	3.6%
West Palm Beach	3.5%	1.4%	\$34.7	13.1%	1.5%
Pittsburgh	3.4%	1.0%	\$24.5	13.9%	0.9%
Los Angeles	3.4%	-0.8%	\$39.1	12.3%	1.1%
Brooklyn	3.2%	2.4%	\$54.7	11.2%	8.0%
Austin	3.1%	-1.7%	\$41.5	8.0%	3.0%
Dallas - Fort Worth	-0.5%	-1.3%	\$27.8	17.5%	2.1%

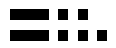
Office Fundamentals Improving in Tech Hub Markets

Bottom 10 Markets

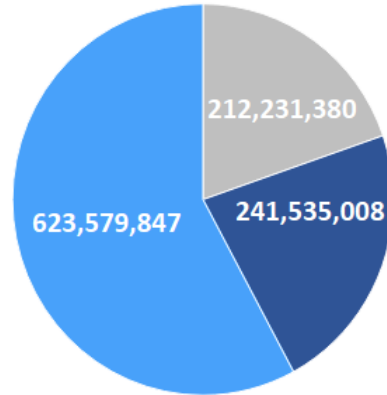
Market	Same Store 12-Month Change in Full-Service Equivalent Asking Rents	12-Month Change in Vacancy Rate	January Full-Service Equivalent Asking Rent	January Vacancy Rate	New Supply as a % of Stock Last 12 Months
Birmingham	-2.1%	1.3%	\$19.8	16.3%	1.0%
Cleveland - Akron	-2.2%	4.1%	\$19.8	16.7%	0.0%
Phoenix	-2.3%	2.3%	\$27.1	18.3%	3.0%
Minneapolis - St. Paul	-3.0%	1.2%	\$24.9	12.0%	0.4%
Las Vegas	-3.7%	-1.9%	\$25.2	13.3%	0.4%
Cincinnati	-5.0%	-1.0%	\$16.2	18.3%	0.5%
Boston	-5.9%	0.9%	\$36.8	9.5%	0.8%
Chicago	-6.1%	1.0%	\$26.1	15.0%	1.4%
Central Valley	-6.4%	2.8%	\$23.9	9.6%	0.6%
Columbus	-6.6%	-0.1%	\$17.3	14.2%	1.9%
Dallas - Fort Worth	-0.5%	-1.3%	\$27.8	17.5%	2.1%

Office Supply Additions Peaked in 2018





Where Is Future Office Supply Concentrated?



■ Under Construction Sq. Ft.

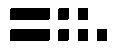
■ Planned Sq. Ft.

■ Prospective Sq. Ft.

Top 10 Markets	Sq. Ft. UC (MM)	UC as a % of Existing Stock
Austin	11.7	14.4%
Brooklyn	3.2	8.4%
Seattle	13.8	8.3%
Charlotte	5.6	7.3%
Nashville	4.0	6.7%
San Francisco	10.3	5.8%
Queens	1.2	5.3%
Miami	3.6	5.0%
Urban Boston	13.2	4.9%
Carolina Triangle	3.6	4.7%

Top 10 Markets	Sq. Ft. Planned (MM)	Planned as a % of Existing Stock
Austin	12.2	15.1%
Nashville	5.1	8.5%
Wilmington	0.3	7.9%
Phoenix	10.3	7.2%
Mobile	0.5	7.2%
Carolina Triangle	5.5	7.1%
Fort Wayne	0.6	7.0%
San Francisco	12.4	7.0%
Brooklyn	2.6	6.7%
Long Island	3.6	6.6%

Top 10 Markets	Sq. Ft. Prospective (MM)	Prospective as a % of Existing Stock
Nashville	15.3	25.4%
Bay Area	59.3	22.5%
Austin	17.2	21.2%
Brooklyn	6.4	16.7%
Jacksonville	7.0	16.6%
Atlanta	31.3	14.8%
Washington, D.C.	58.3	14.2%
Charlotte	10.7	14.0%
Orlando	8.9	13.8%
West Palm Beach	5.0	13.6%



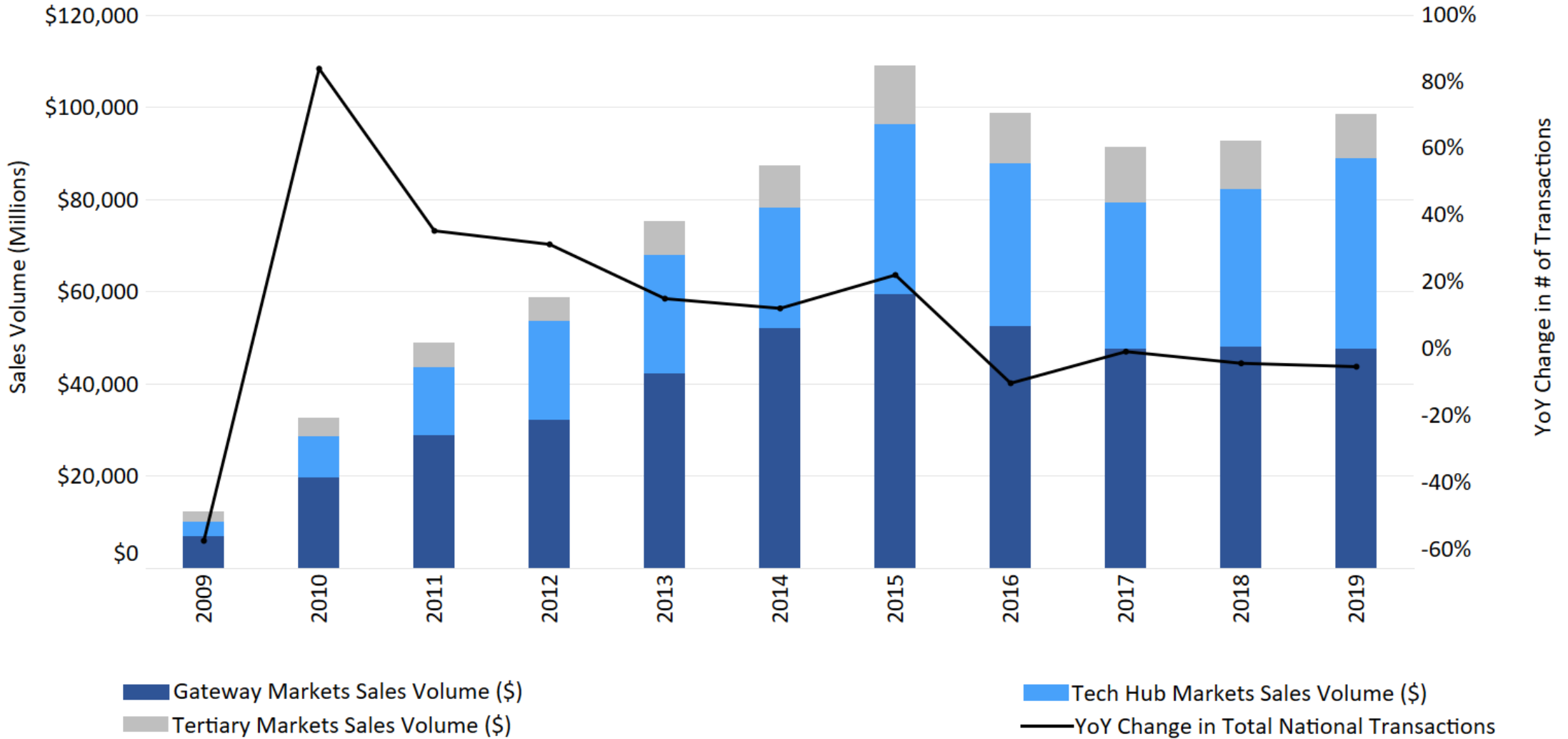
Top 20 Largest Office Projects Under Construction

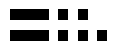


Property Name	Market	Square Footage
50 Hudson Yards	Manhattan	2,900,000
The Spiral	Manhattan	2,800,000
Microsoft Redmond Main Campus - Redevelopment	Seattle	2,500,000
Apple West Parmer Lane Campus	Austin	2,000,000
Two Manhattan West	Manhattan	1,840,000
One Vanderbilt	Manhattan	1,755,814
110 North Wacker	Chicago	1,565,909
3 Hudson Blvd	Manhattan	1,538,210
BMO Tower	Chicago	1,537,076
Winthrop Center	Boston	1,511,000
First Street Tower of Oceanwide Center	San Francisco	1,491,019
Google Hudson Square - 550 Washington Street	Manhattan	1,300,000
California Market Center	Los Angeles	1,296,360
State Farm at Park Center - Phase II	Atlanta	1,160,000
Texas Tower	Houston	1,155,000
6x Guadalupe	Austin	1,149,386
South Station - Phase 1	Boston	1,039,000
Hub on Causeway - Office Building	Boston	1,036,500
Charlotte Metro Tower	Charlotte	1,025,000
Block 216 Tower	Portland	1,022,200

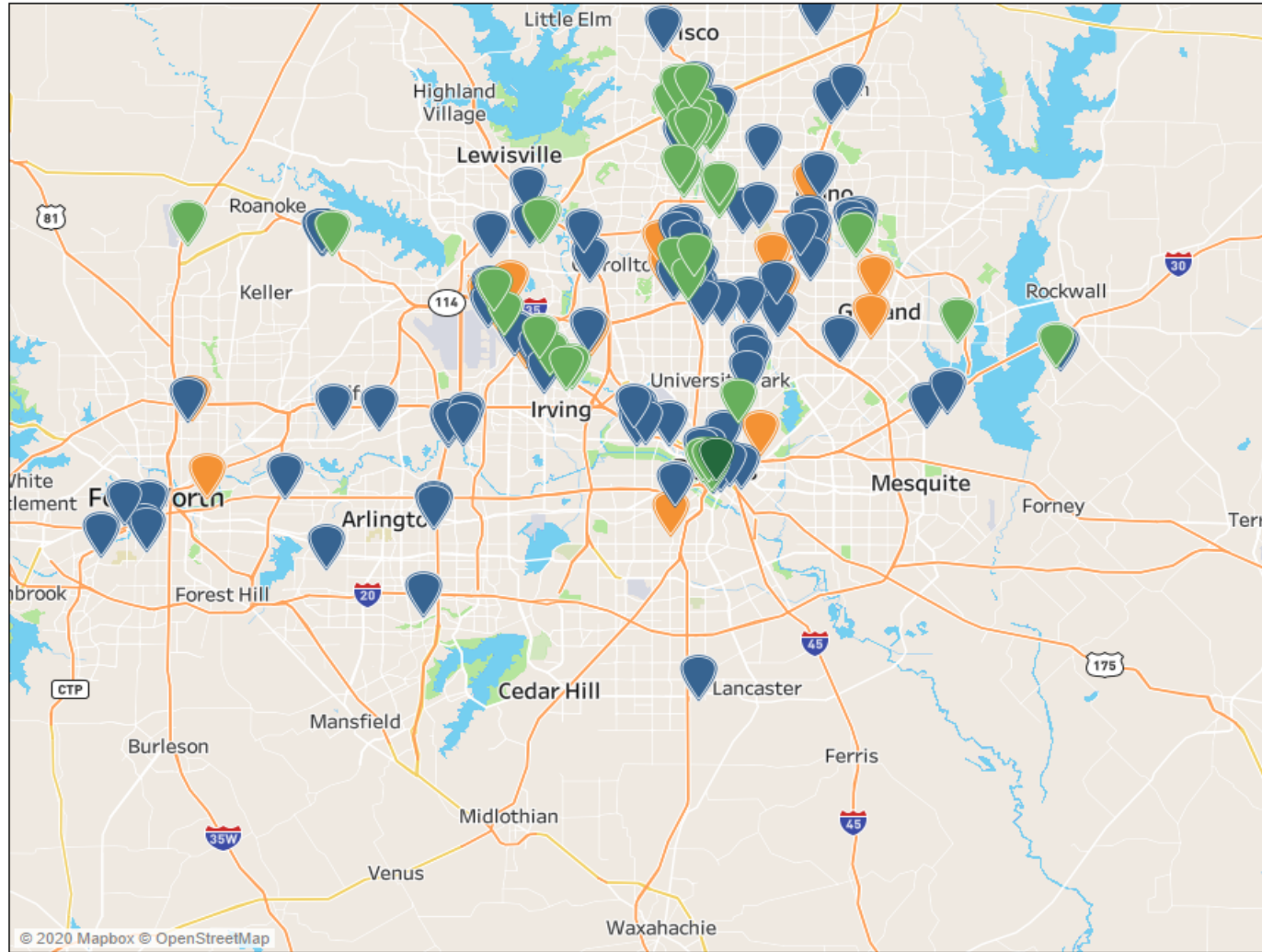


2019 Office Sales Volume In Line With Last Two Years





Dallas Office Transaction Composition in 2019



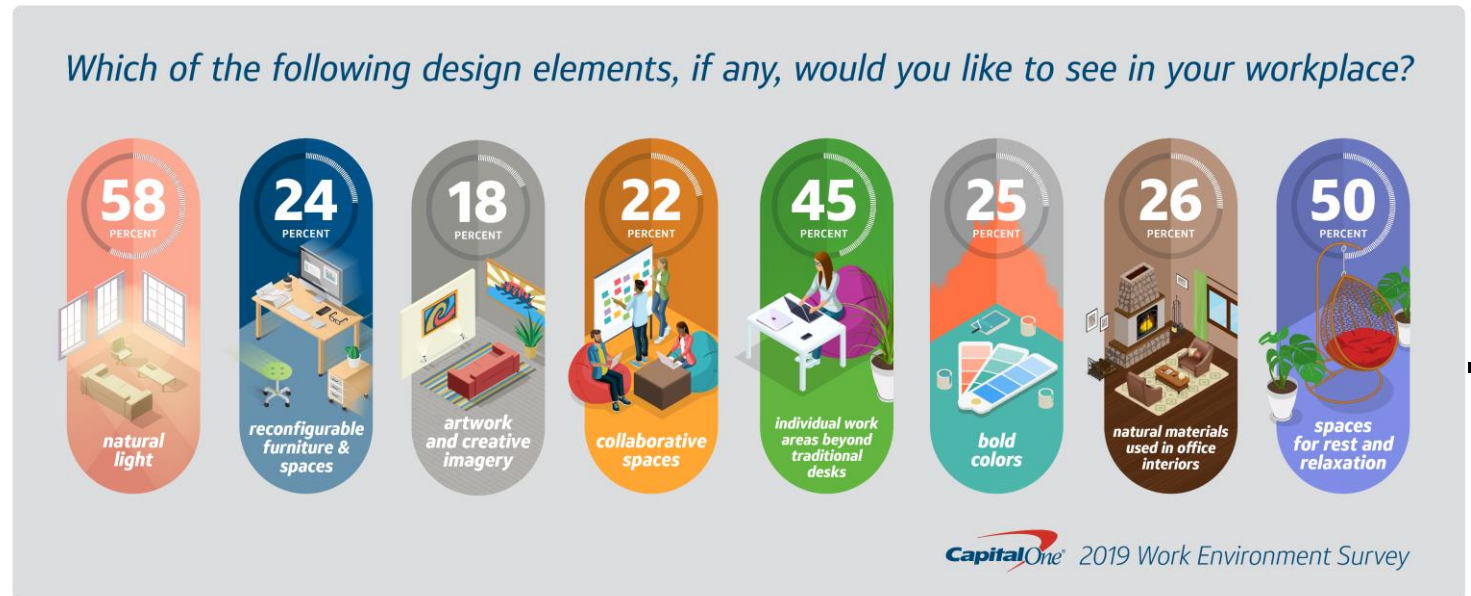
Building Class: ■ A+ ■ A ■ B ■ C

2019 Transactions		
	#	% of Stock
Properties Sold	161	7.4%
Sq. Ft. Sold	21,220,909	6.8%

2019 Sales Prices		
	Dallas - Fort Worth	National
Avg. Sales Price per Sq. Ft.	\$255.97	\$275.67
Avg. Sales Price per Sq. Ft. for Class A+/A Assets	\$347.98	\$369.15
1-Year Sales Price per Sq. Ft. Growth for Class A+/A Assets	39.3%	12.3%
5-Year Sales Price per Sq. Ft. Growth for Class A+/A Assets	131%	24.5%

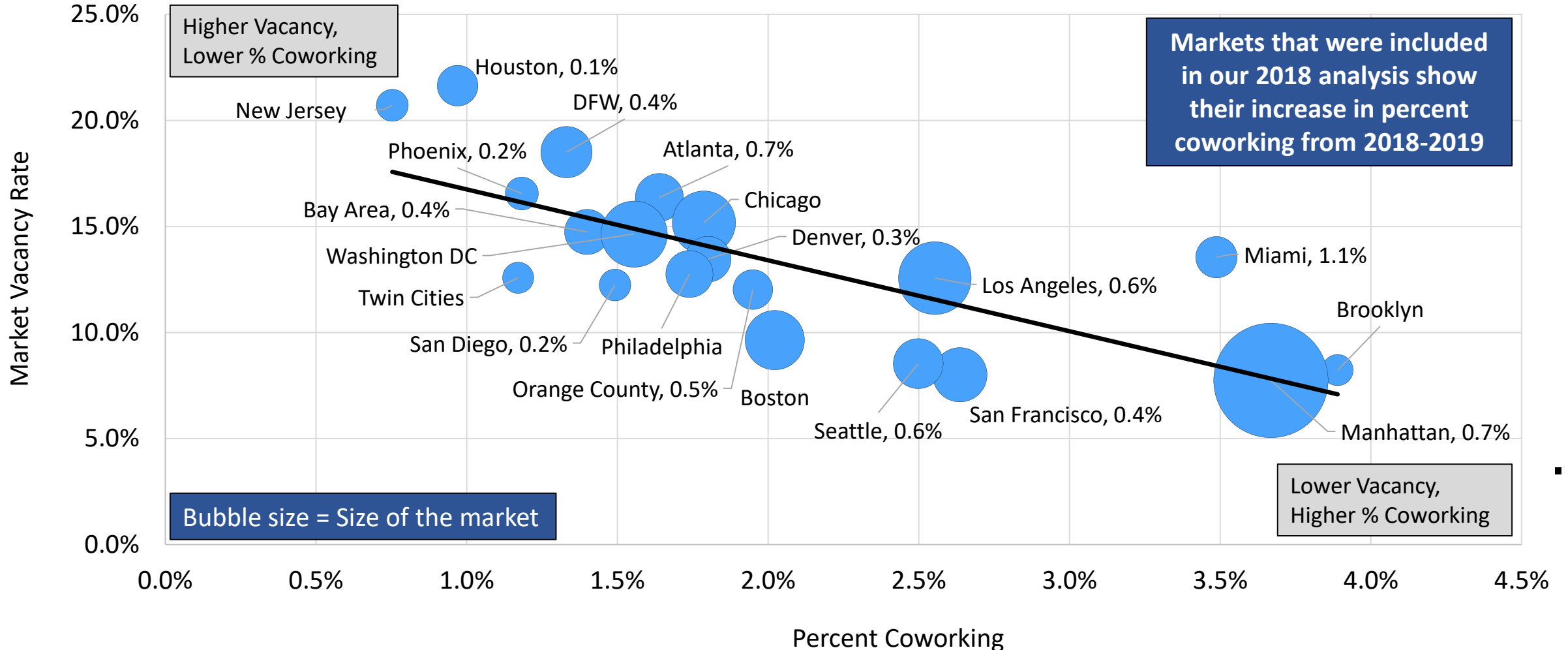
Secular Pressures Continue to Alter the Office Market

- Coworking
 - Pulls roughly 1-3% of market demand from traditional office leases
 - More highly concentrated in dense, high-cost gateway markets
 - More players have entered the market: CBRE, JLL, Tishman, Savills
- Decreasing square foot per employee
 - Specifically in CBD and high-cost metros
- Talent pool for office-using employment – office is becoming more about the *experience*
 - Diversifying and moving to lower-cost markets
 - Capital expenditures are rising in office assets as the labor market tightens and office occupiers view space as a part of HR strategy



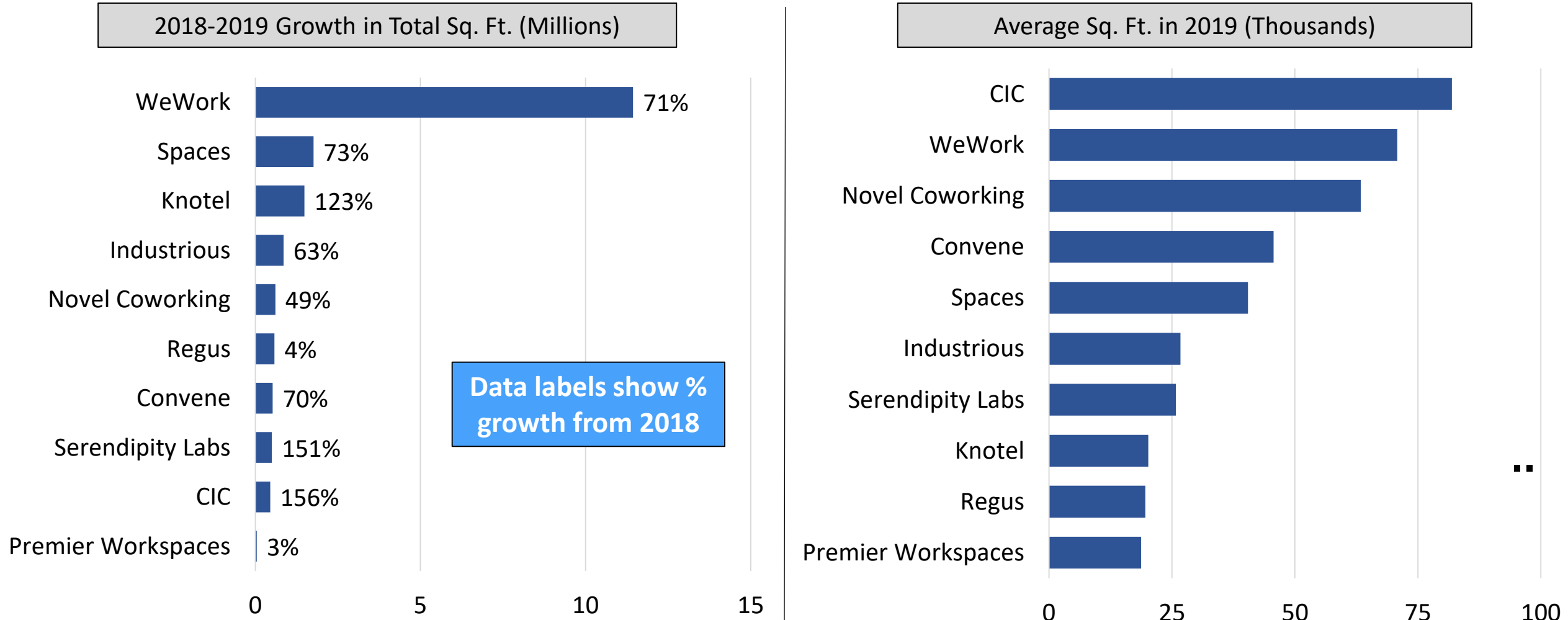
Markets With Lower Vacancy Rates Have Higher Proportion of Coworking Space

Market Vacancy vs. Percent Coworking





Since Our 2018 Report, WeWork's Footprint Grew by 11 Million Sq. Ft. or 71% in 20 Metros



Data labels show % growth from 2018

Capital Expenditures Rising as Office Space Becomes Draw for Top Talent

MULTIFAMILY	Dallas	Atlanta	Austin	Boston	San Diego	Manhattan	Miami	San Francisco	Washington D.C.
Net Operating Income	\$7,531	\$8,685	\$7,717	\$15,161	\$14,560	\$19,951	\$11,602	\$21,200	\$11,554
CapEx	\$1,623	\$2,063	\$1,510	\$2,143	\$1,699	\$2,204	\$1,459	\$1,394	\$1,601
CapEx as a % of NOI	21.6%	23.8%	19.6%	14.1%	11.7%	11.0%	12.6%	6.6%	13.9%

OFFICE	Dallas	Atlanta	Austin	Boston	San Diego	Manhattan	Miami	San Francisco	Washington D.C.
Net Operating Income	\$10.86	\$13.57	\$19.97	\$20.36	\$18.05	\$32.08	\$18.37	\$36.92	\$20.59
CapEx	\$4.00	\$3.83	\$4.92	\$4.33	\$4.75	\$6.19	\$5.50	\$6.18	\$5.11
CapEx as a % of NOI	36.8%	28.2%	24.6%	21.3%	26.3%	19.3%	29.9%	16.7%	24.8%



SUMMARY



1

New supply peaked in 2018 & various factors are reducing demand for office space

- Coworking
- Telecommuting
- Outsourcing

2

Both gateway & tech hub markets saw rising asking rents over the past year, with the highest growth in Manhattan, San Francisco, Tampa, Atlanta & Charlotte

3

Transactions are falling nationally, but sales prices have been increasing

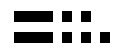
- Prices for Class A assets have increased more than B & C since the recession





CITY SPOTLIGHT





What Helps a City Reach Its Critical Point to Succeed?



ALL EXISTING TECH MARKETS HAVE THESE CHARACTERISTICS TO SOME DEGREE

PUBLIC & PRIVATE
PARTNERSHIPS

FRIENDLY BUSINESS
ENVIRONMENT

COMMUNITY & AMENITIES THAT
RETAIN & DRAW IN TALENT

EDUCATED WORKFORCE





What's Going on in Dallas?



PUBLIC & PRIVATE PARTNERSHIPS

- Dallas City Council turned over operations of Fair Park to Spectra, a Time Warner subsidiary, which will operate the facility and be paid \$35 million over 10 years
 - After the management fee, all excess revenue will go back into operations or capital improvements
- City of Dallas and non-profit WellMed partner to open a \$1.4 million, 22,000-square-foot health and wellness center for adults 60 and over

FRIENDLY BUSINESS ENVIRONMENT

- State Rank #2
- City of Dallas tax abatements differ based on geography
 - Target areas: up to 90% for 10 years and/or a personal property abatement up to 50% for 5 years
 - Non-target areas: up to 50% for 10 years and/or personal property abatement up to 50% for 5 years
- \$6 million in incentives granted to The Home Depot to open a multimillion sq. ft. center that will bring 800 jobs

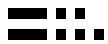
COMMUNITY & AMENITIES THAT RETAIN & DRAW IN TALENT

- The Union Dallas mixed-use development
 - 420K sq. ft. office tower, 85K sq. ft. retail, 309-unit apartment building, 60K sq. ft. grocery store
- \$1.1 billion Globe Life Field and adjacent \$250 million Texas Live! Entertainment district
 - New home of the Rangers will seat 41,000 fans and will open in 2020

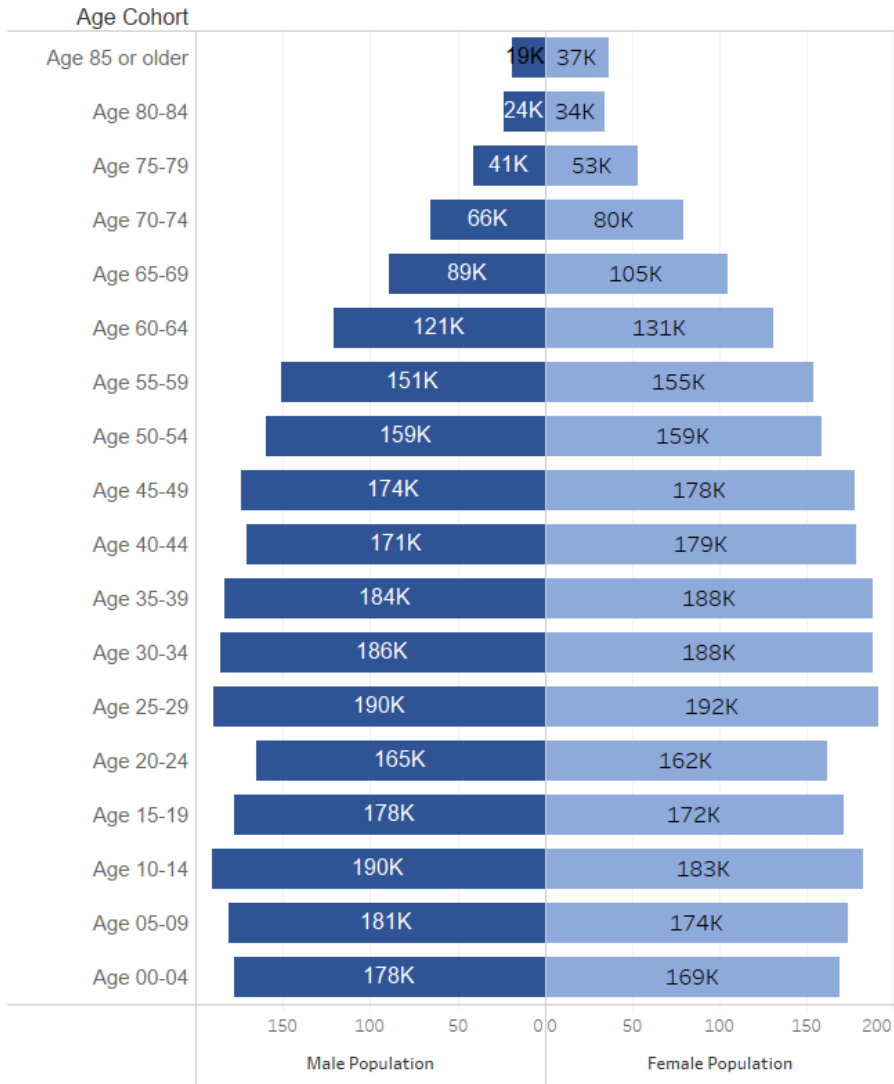
EDUCATED WORKFORCE

- 32% of adults in the City of Dallas have a bachelor's degree or higher

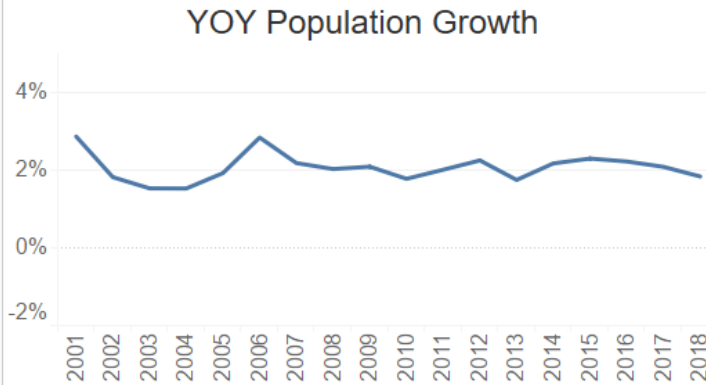
University	Approx. Enrollment 2018
Texas A&M University	68,679
University of Texas at Dallas	28,755
Southern Methodist University	11,649
University of North Texas at Dallas	3,757



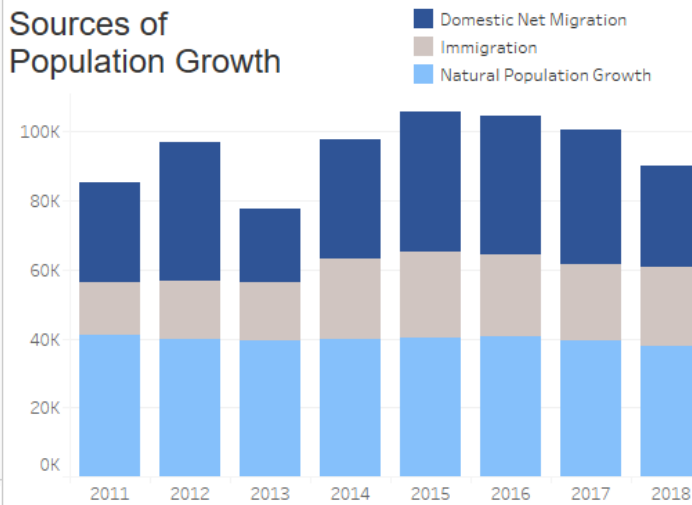
Dallas Demographics Overview



Source: U.S. Census Bureau (BOC); Moody's Analytics



Source: U.S. Census Bureau (BOC); Moody's Analytics



Source: U.S. Census Bureau (BOC); Moody's Analytics

IRS Migration Data (2016)

Domestic Migrants Into Dallas

Coming From	Count
Texas	72,233
California	12,157
Illinois	4,951
Florida	4,570
New York	3,113
Oklahoma	3,108
Louisiana	3,044
Arizona	2,318
Colorado	2,243
Georgia	2,164

Total Inbound Residents

139,488

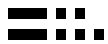
Domestic Migrants Leaving Dallas

Heading to	Count
Texas	74,210
California	6,415
Florida	3,824
Colorado	2,631
Oklahoma	2,167
Arizona	1,872
Washington	1,695
Georgia	1,656
Louisiana	1,414
Illinois	1,343

Total Outbound Residents

111,058

Source: IRS Statistics of Income (SOI); Moody's Analytics



Dallas Housing Overview



58.0%

homeownership rate in Dallas

349K

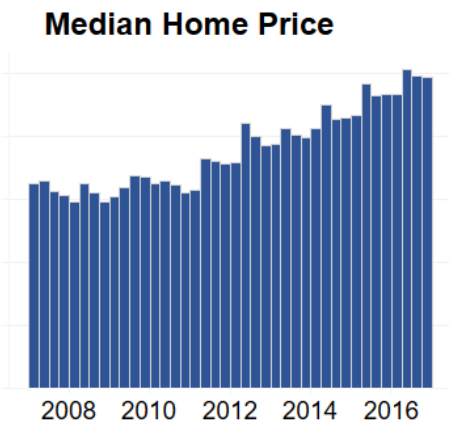
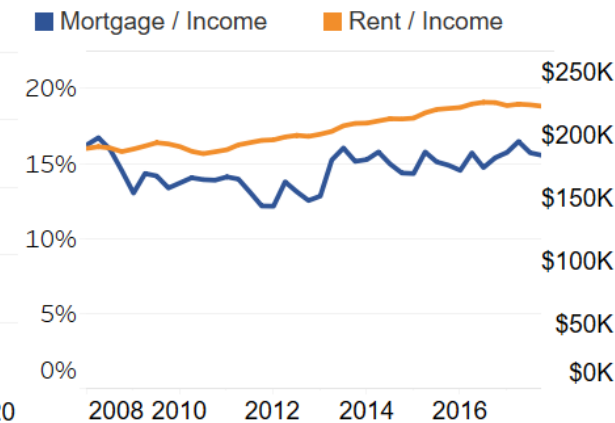
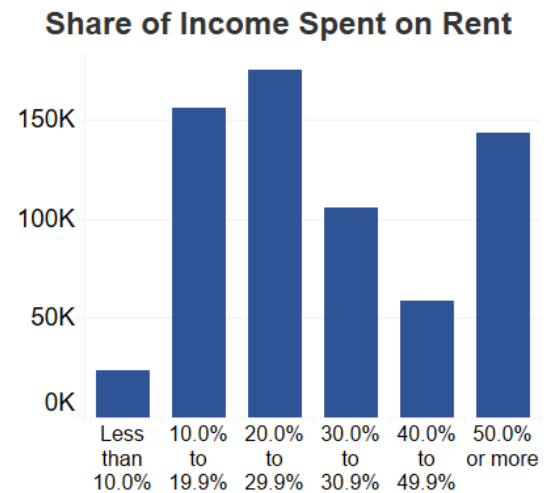
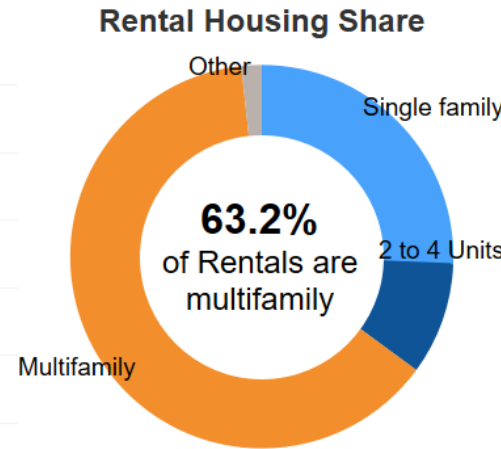
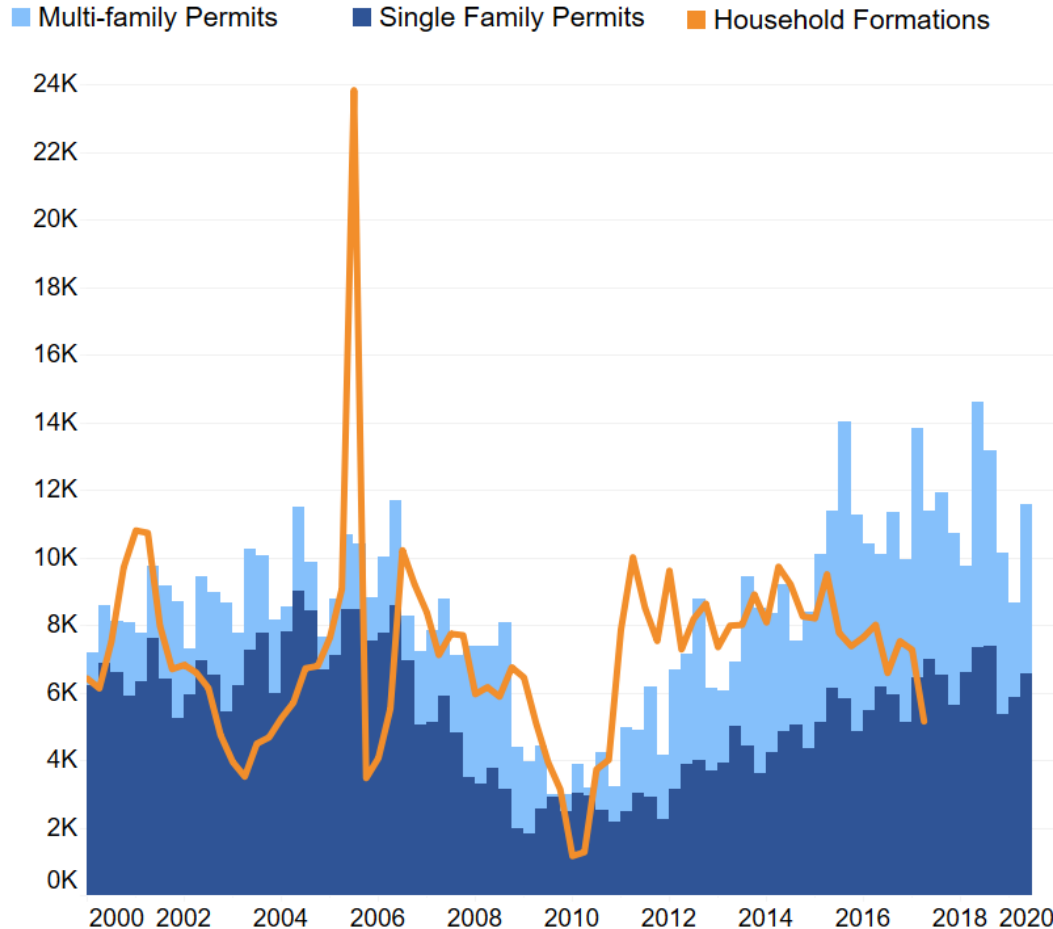
18-34 Year Olds (31.4%) live at home

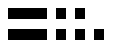
35.6%

of renter households spend 35% or more of their income on rent

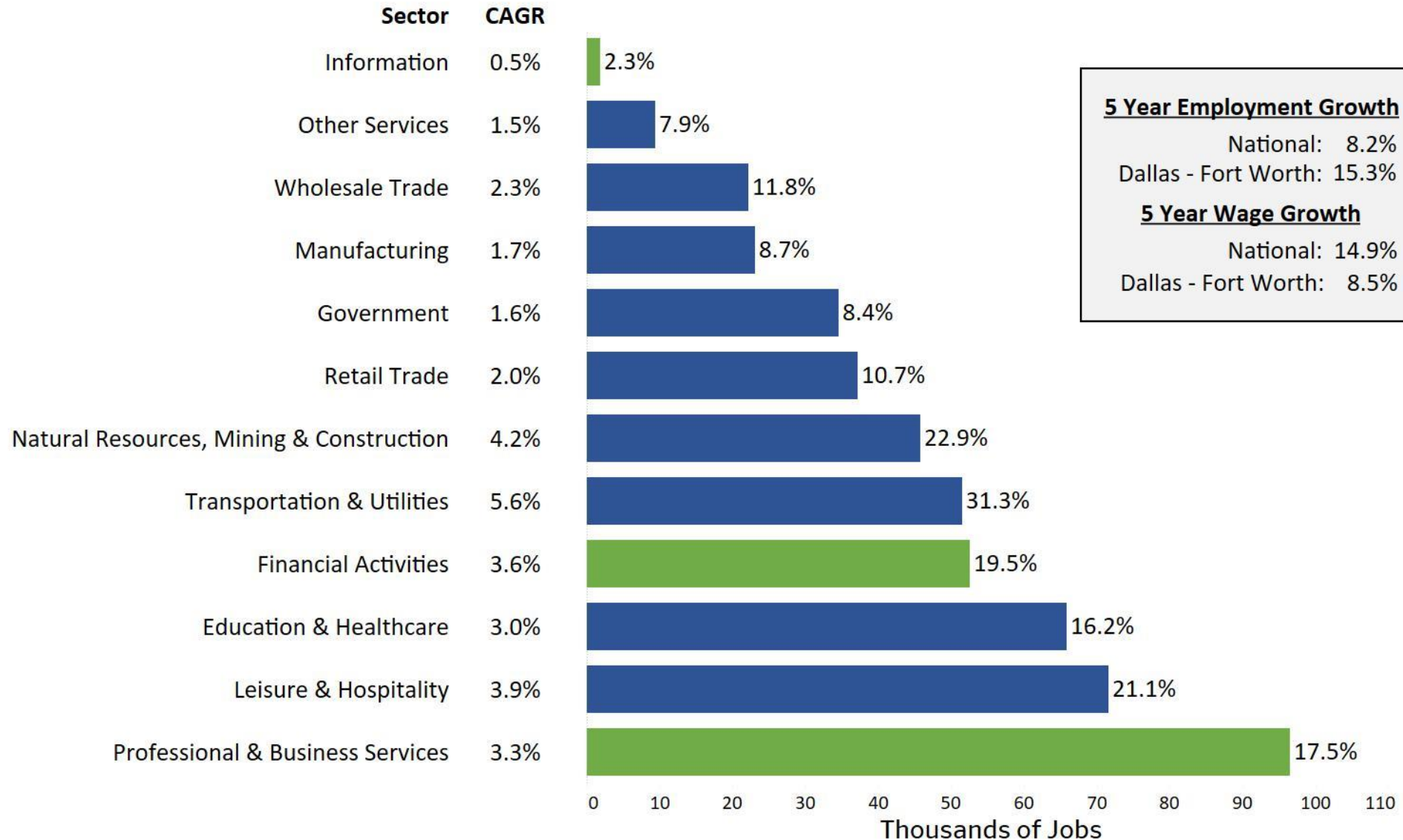
105.9

Regional Price Parity Rent Index US = 100

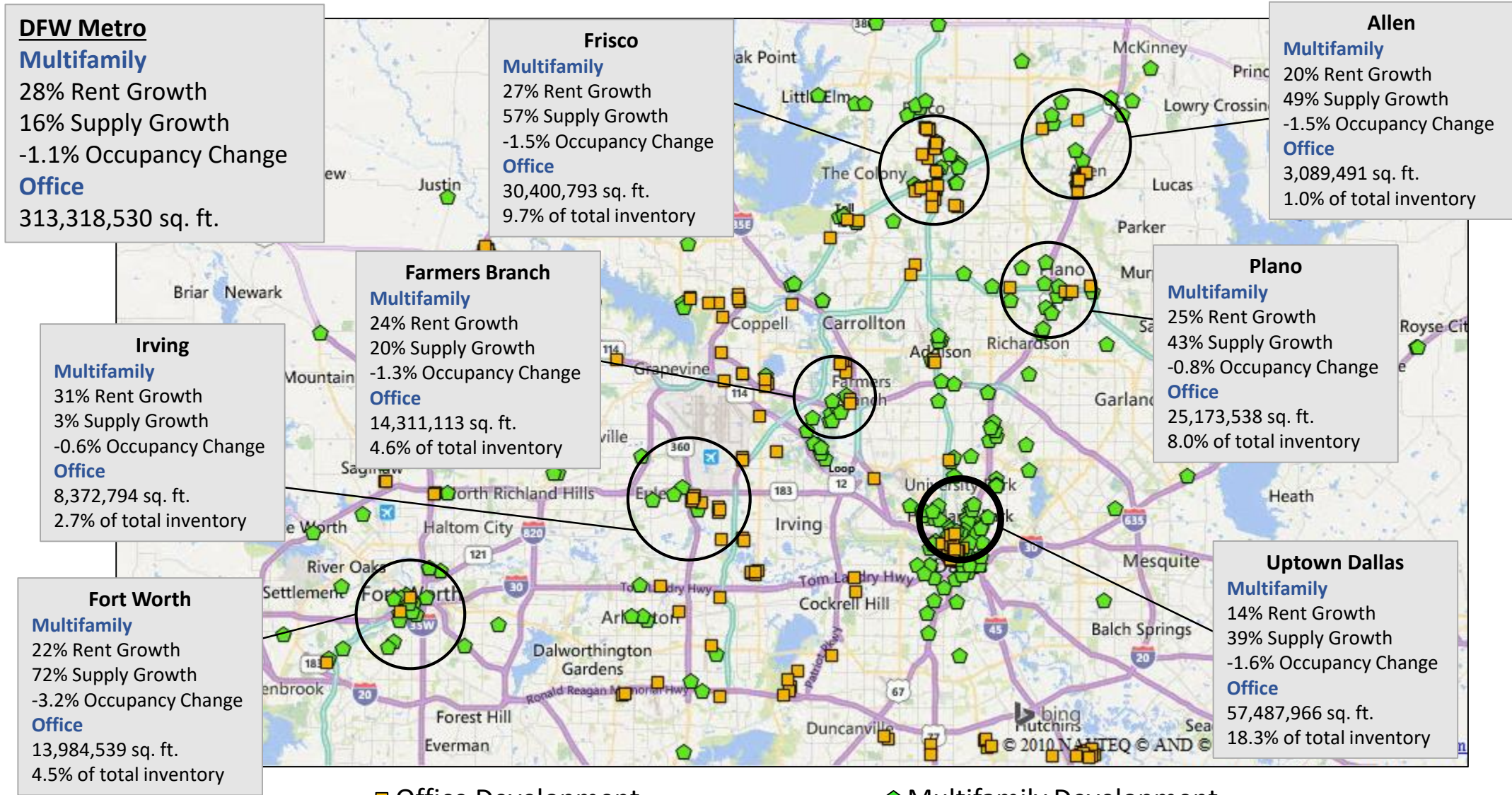


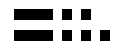


Dallas Employment Growth Dec. 2014 – Dec. 2019



Dallas Intellectual Capital Nodes

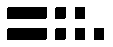




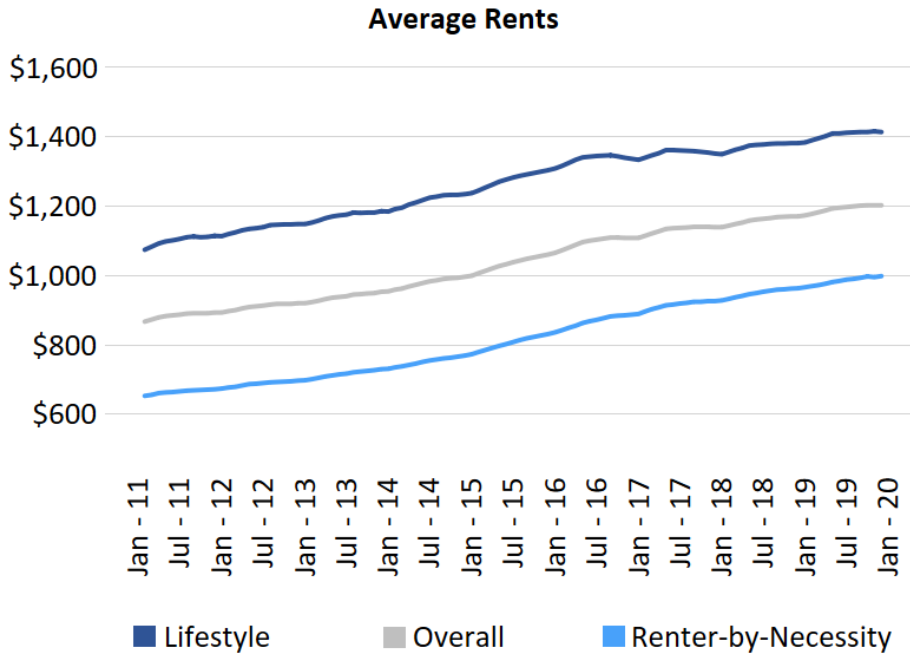
Matrix Expert Multifamily Operating Data Per Unit



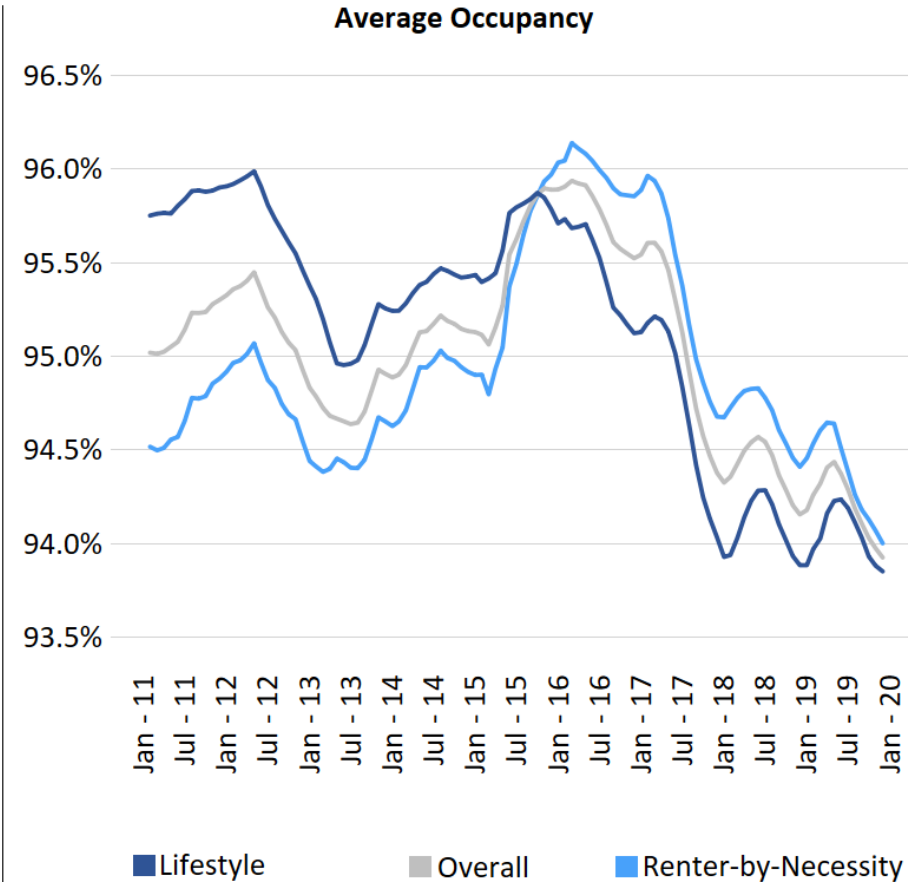
12-month period Ending December 2019	Dallas	Atlanta	Austin	Boston	Chicago	Denver	Los Angeles	Manhattan
Total Income	\$15,148	\$15,821	\$15,293	\$25,497	\$23,394	\$18,259	\$28,415	\$36,470
Total Operating Expense	\$7,617	\$7,136	\$7,575	\$10,336	\$10,637	\$6,418	\$11,234	\$16,519
<i>Net Operating Income</i>	<i>\$7,531</i>	<i>\$8,685</i>	<i>\$7,717</i>	<i>\$15,161</i>	<i>\$12,756</i>	<i>\$11,841</i>	<i>\$17,180</i>	<i>\$19,951</i>
Operating Margin	49.7%	54.9%	50.5%	59.5%	54.5%	64.8%	60.5%	54.7%
Cap Rate (December 2019)	6.2%	7.0%	5.4%	4.9%	4.5%	4.9%	4.1%	3.0%

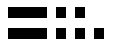


Multifamily Rents & Occupancy: Dallas

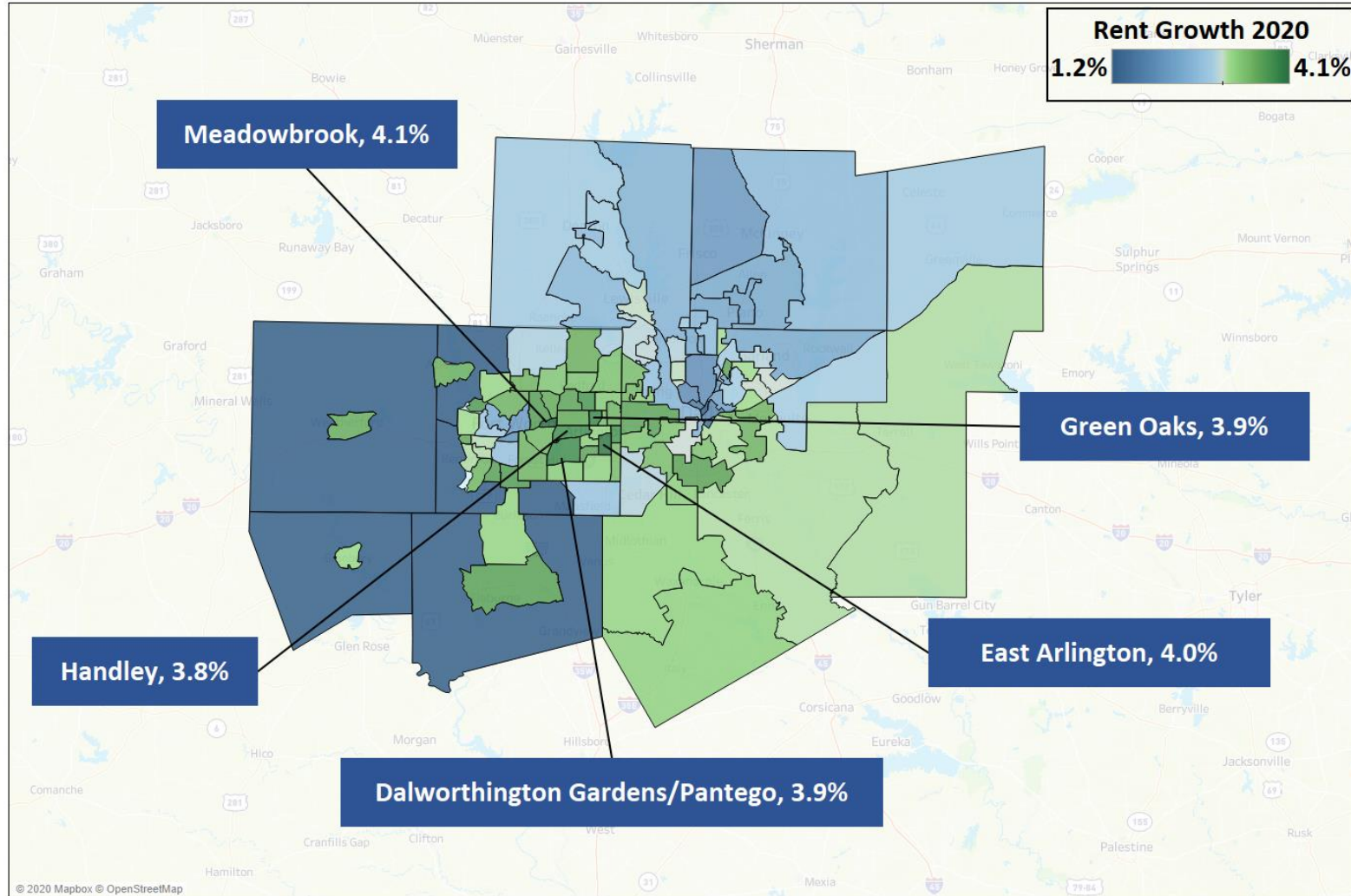


Dallas - Fort Worth	Rent CAGR 2011 - 2020	Rent Growth 2019 - 2020
Lifestyle	3.1%	2.3%
Renter-by-Necessity	4.8%	3.6%
Overall	3.7%	2.7%





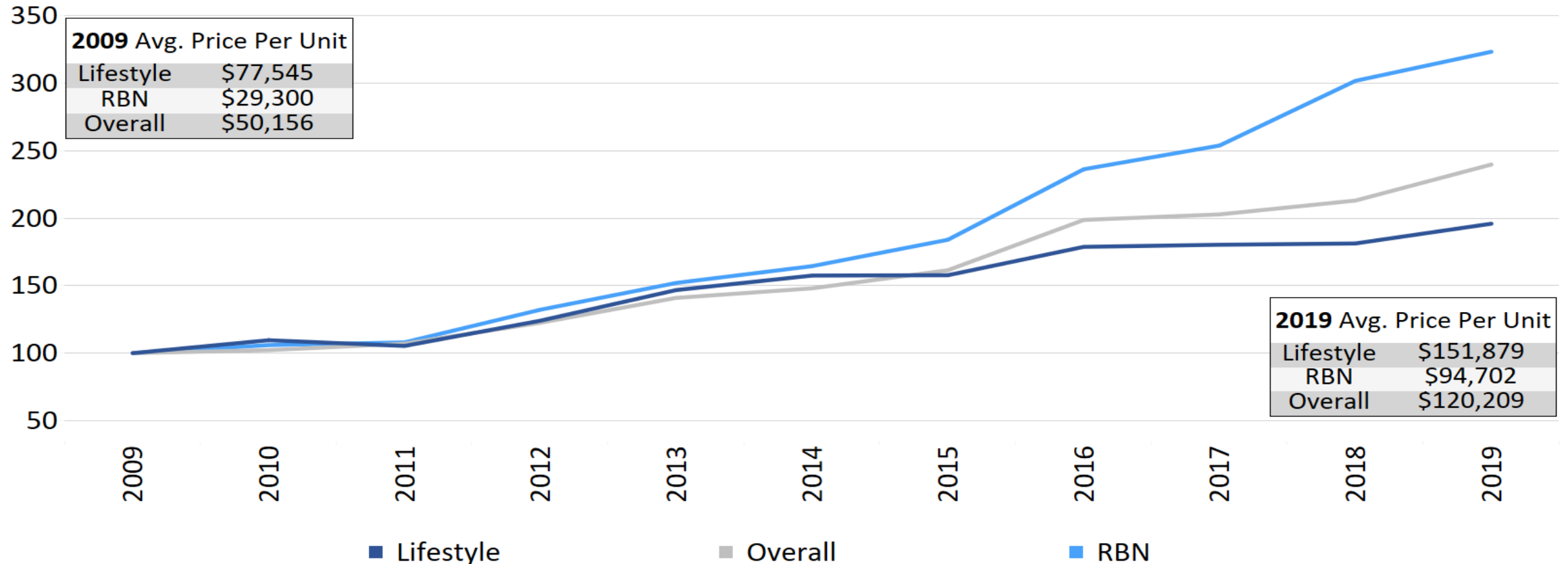
Dallas-Fort Worth Top 5 Submarkets Multifamily Rent Forecasts



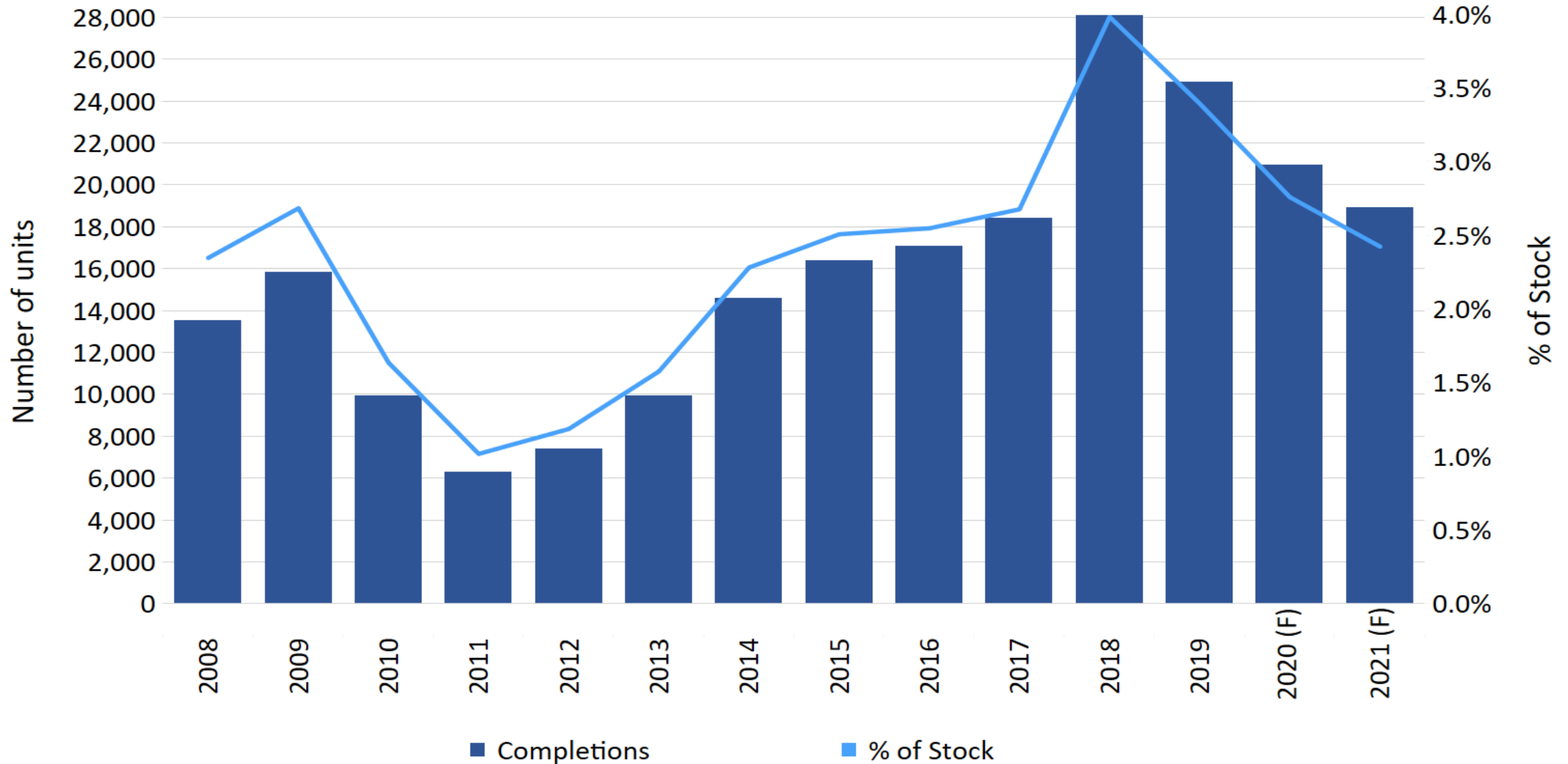
Multifamily Sales Prices: Dallas

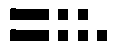
Price Per Unit Index 2009 = 100

Asset Class	10-Year Growth	10-Year CAGR
Lifestyle	95.9%	7.0%
Renter-by-Necessity	223.2%	12.5%
Overall	139.7%	9.1%

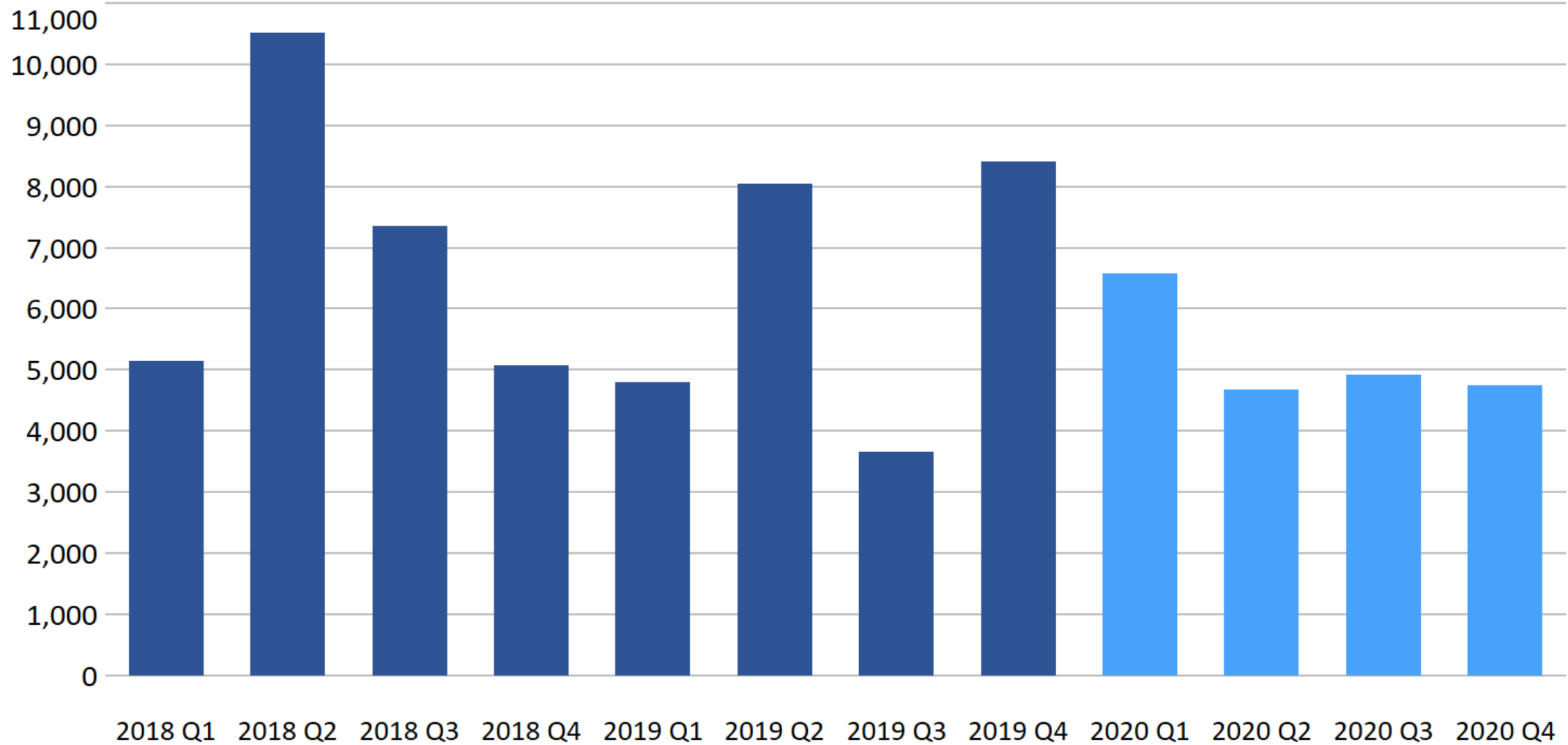


Multifamily Supply Pipeline: Dallas





Multifamily Unit Completion by Quarter: Dallas

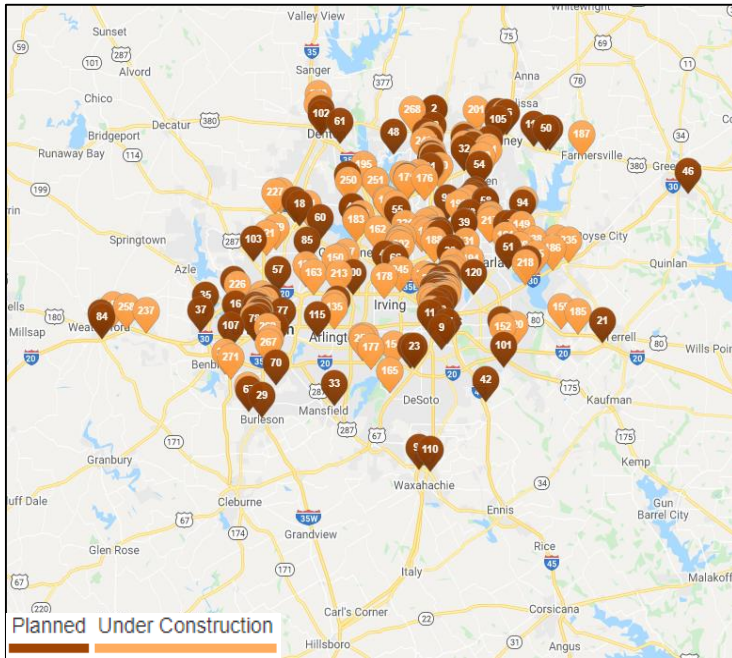


■ Completed

■ Forecast Completions

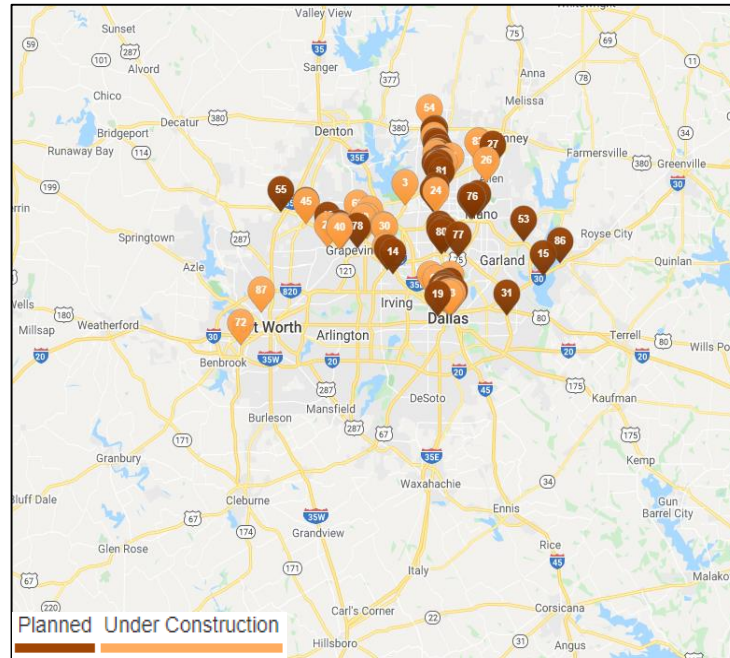
Dallas Development Pipeline

Multifamily



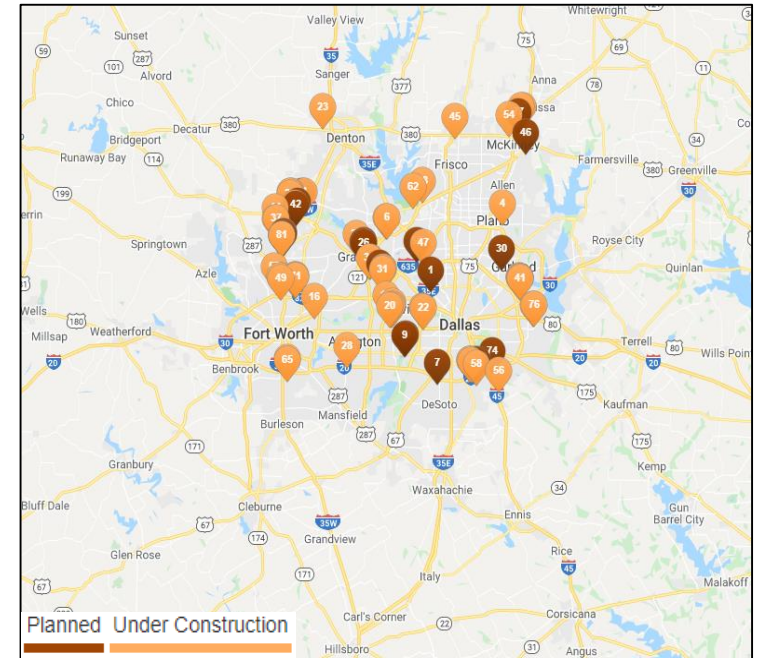
Property Status	# of Units	% of Existing Stock
Under Construction	44,006	5.8%
Planned	42,562	5.6%

Office



Property Status	Sq. Ft.	% of Existing Stock
Under Construction	7,883,152	2.5%
Planned	19,895,464	6.3%

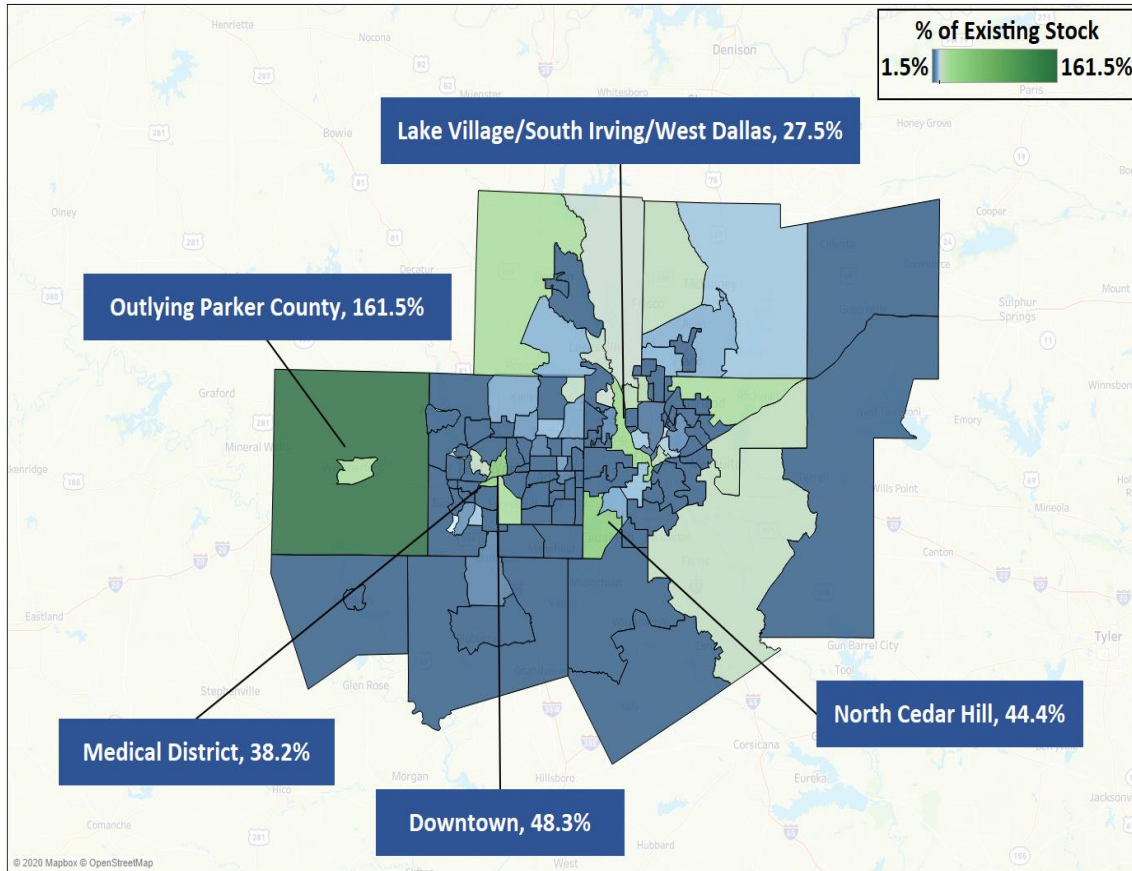
Industrial



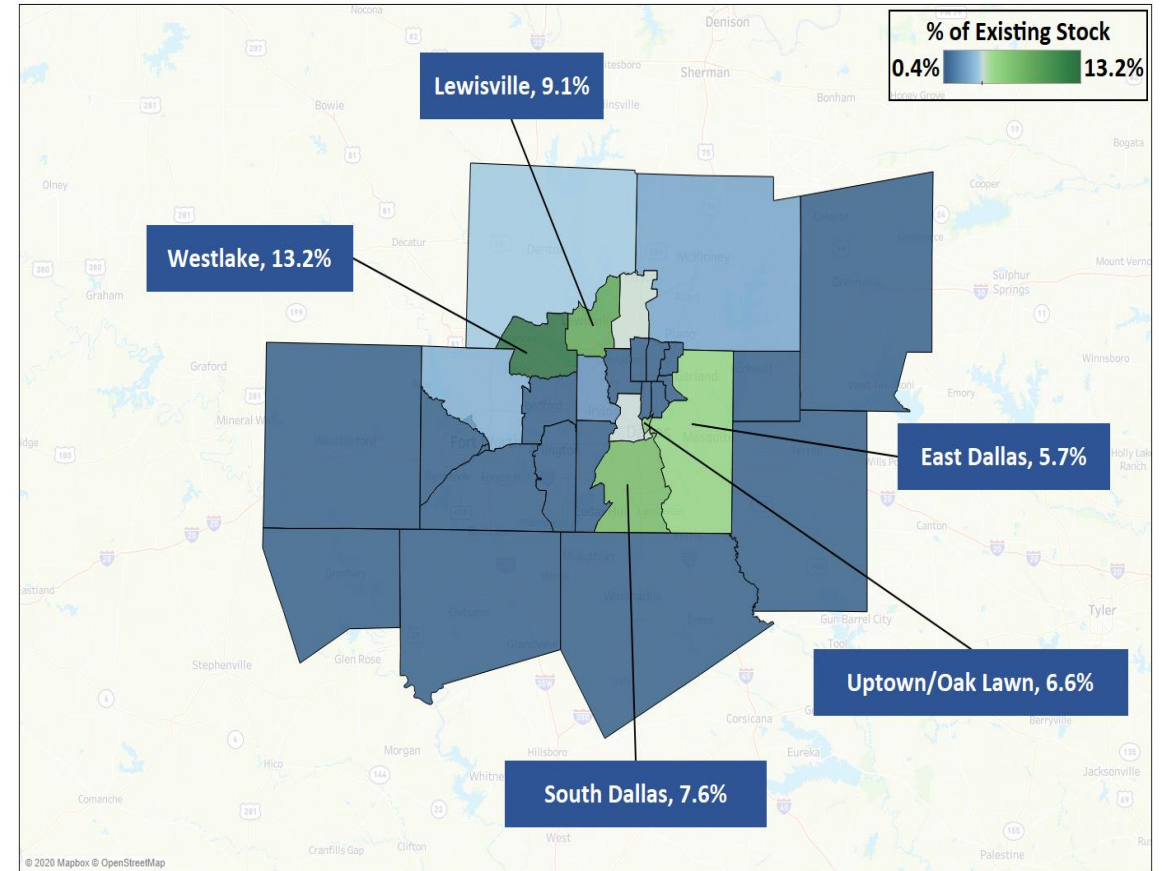
Property Status	Sq. Ft.	% of Existing Stock
Under Construction	19,338,419	3.6%
Planned	9,292,959	1.7%

Top 5 Dallas Submarkets With Construction Activity

Multifamily



Office



Dallas Office Fundamentals

Asset Class	Count	Sq. Ft. (Thous.)	Direct Sq. Ft. Available (Thous.)	Sublease Sq. Ft. Available (Thous.)	Total Sq. Ft. Available (Thous.)	Direct Asking Rate	Market Asking Rate	Direct Vacancy	Sublease Vacancy	Overall Vacancy
A & A+	555	151,296	19,587	974	20,561	\$24.8	\$31.9	16.1%	0.8%	16.9%
B	1,314	145,094	18,395	314	18,709	\$18.9	\$22.6	18.4%	0.3%	18.7%
C	313	16,983	1,870	11	1,881	\$12.7	\$15.1	19.3%	0.1%	19.4%
Total - Dallas - Fort Worth	2,182	313,374	39,853	1,299	41,151	\$22.0	\$27.6	17.2%	0.6%	17.8%
NATIONAL	66,255	7,523,817	636,843	45,751	682,594	\$27.4	\$31.4	12.3%	0.9%	13.2%



Matrix Expert Office Operating Data Per Sq. Ft.



12-Month Period Ending December 2019	Dallas	Atlanta	Austin	Boston	Chicago	Denver	Los Angeles	Manhattan
Total Income	\$20.77	\$23.30	\$34.42	\$35.77	\$25.62	\$24.11	\$34.45	\$60.55
Total Operating Expense	\$9.91	\$9.73	\$14.45	\$15.41	\$13.88	\$11.52	\$14.00	\$28.48
<i>Net Operating Income</i>	<i>\$10.86</i>	<i>\$13.57</i>	<i>\$19.97</i>	<i>\$20.36</i>	<i>\$11.74</i>	<i>\$12.59</i>	<i>\$20.45</i>	<i>\$32.08</i>
Operating Margin	52.3%	58.2%	58.0%	56.9%	45.8%	52.2%	59.4%	53.0%
Cap Rate (December 2019)	5.0%	7.7%	6.4%	5.0%	6.4%	5.6%	5.4%	3.7%



SUMMARY



1 Domestic migration into Dallas declined slightly in 2018. Employment growth in Dallas is well above the national average, while wage growth falls below the national average.

2 Multifamily rents are rising, primarily in the renter-by-necessity asset class. Occupancy for Renter-by-Necessity assets is currently outpacing Lifestyle asset class occupancy by a small margin. Overall occupancy has hovered around 94% for the last two years. Multifamily completions peaked in 2018 and there are still a number of projects in the pipeline.

3 Office fundamentals remain positive, with class A & A+ asking rates significantly higher than B and C assets. Dallas has about 2.5% of office sq. ft. under construction as a percentage of existing stock.





2020 OUTLOOK



- GDP growth in Q4 was decent, and slow and steady growth will likely continue.
- Supply/demand conditions in multifamily will continue to favor mild rate growth, with higher rates in the tech hub and tertiary markets.
- A decent economy coupled with the demographic shift of jobs will continue to create office demand in tech hub cities, providing a solid base for office-using sectors.
- For new investments, it's a **sharpshooter's game** to find the right deal at the right price.
- On the operational side its about **finding revenue** and **cost trimming** opportunities to grow your NOI from existing assets.



THANK YOU

FOR ANY QUESTIONS PLEASE FEEL FREE TO CONTACT ME


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