

MARKET UPDATE

Miami

Wednesday, December 11, 2019

JW Marriott Miami Turnberry Resort & Spa



MULTIFAMILY & COMMERCIAL MARKET UPDATE

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AGENDA

1. Macroeconomic Outlook
2. Multifamily Fundamentals
3. Office Fundamentals
4. Miami Spotlight
5. New Technologies Emerging



KEY TAKEAWAYS



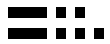
ECONOMY

The economy is in decent shape, with increasing cross-winds. GDP growth in Q3 was OK (~1.9%) and we expect Q4 to be a bit lower, with a lot more noise. Inflation is still relatively low around 2%. The labor market is extremely tight, and wages continue to rise – less so in manufacturing. The yield curve has been inverted for 5 months, but flattened and turned slightly positive following the September 18 and October 30 rate cuts. The European and Chinese economies are in poor shape. The manufacturing and farming sectors are struggling. There is a highly elevated risk of recession mid 2021.



DEMOGRAPHIC SHIFTS

As companies and people look for lower-cost alternate cities, they drive a shift of both jobs and population to tech hub cities previously not considered. When this happens, real estate will follow. We see this shift happening from urban cores to urbanized suburbs or intellectual capital nodes. The tax reform passed in 2017 will likely accelerate this trend and provide opportunities along the way.



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 over 300,000 units in 2018, and with the constraints of financial and labor costs, 2019 and 2020 deliveries are expected to be flat.



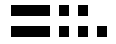
RENT GROWTH

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 2018 came in higher than 2017 with \$115 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. 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.



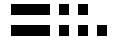
LISTING RATE GROWTH

Most Matrix markets showed moderate rate growth over the last year, but some have seen lease rates fall – Boston, Chicago, Central Valley and Salt Lake City. 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 markets categories. However, sales prices per square foot have increased nationally since 2000, with tech hub markets having the most growth over the past ten years.



2019 OUTLOOK



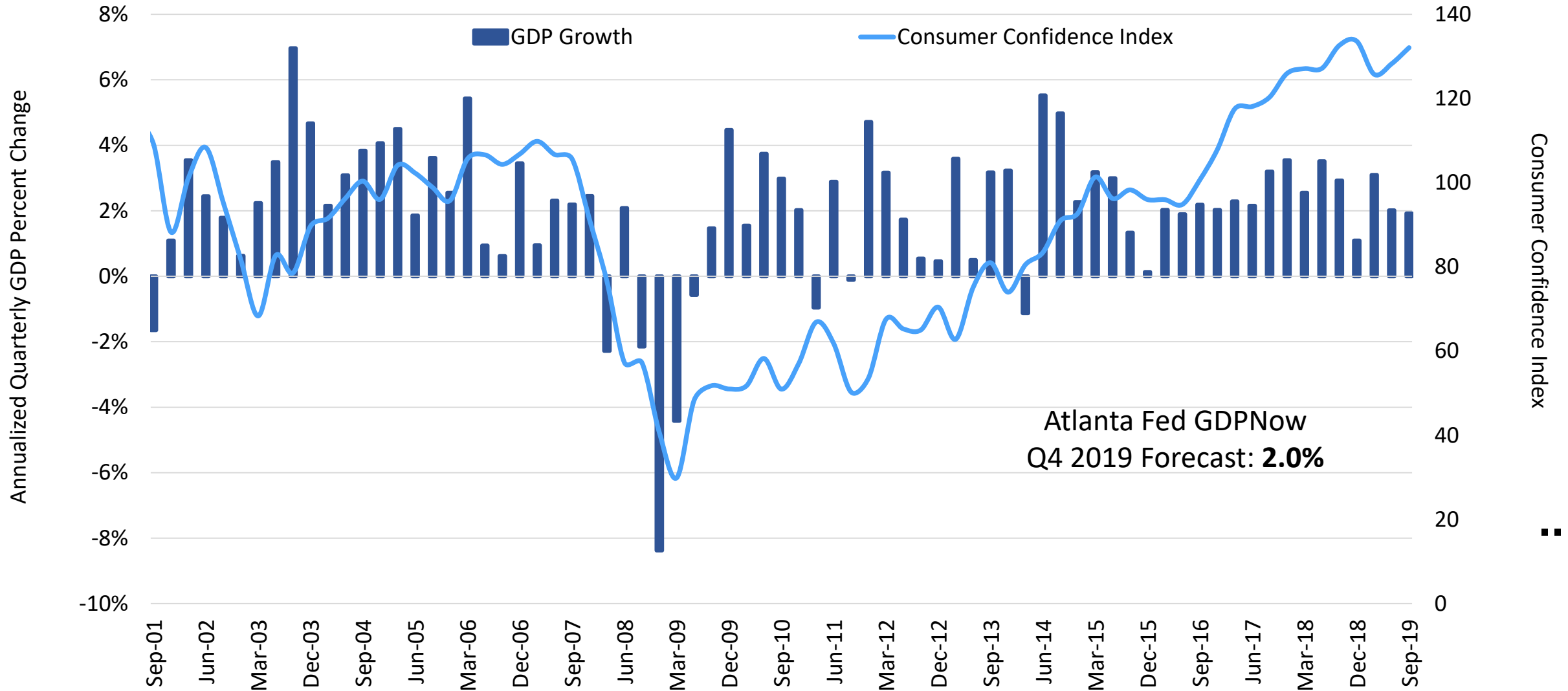
- GDP growth will be slow moving into Q4, with a lot more noise.
- Supply/demand conditions in multifamily will continue to favor mild rate growth, with higher rates in the tech hub and tertiary markets.
- A decent economy coupled with the demographic shift of jobs will continue to create office demand 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 your existing assets.
- The use of new technology is already impacting commercial space in help with costs, especially around **utility consumption**. This will accelerate as the technologies are more widely adopted.

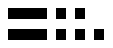


MACROECONOMIC OUTLOOK



U.S. Economic Growth Is Decent, but Slowing

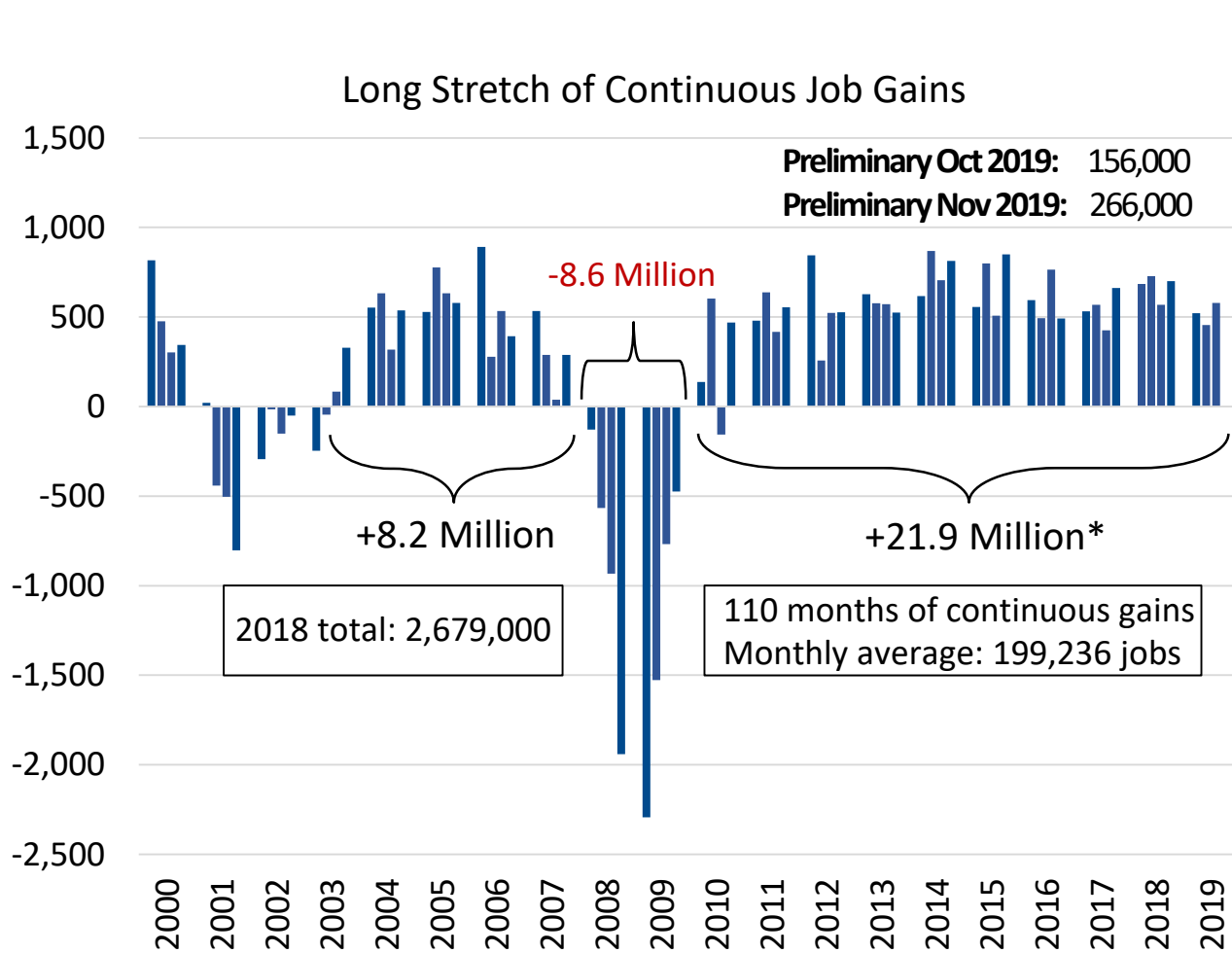




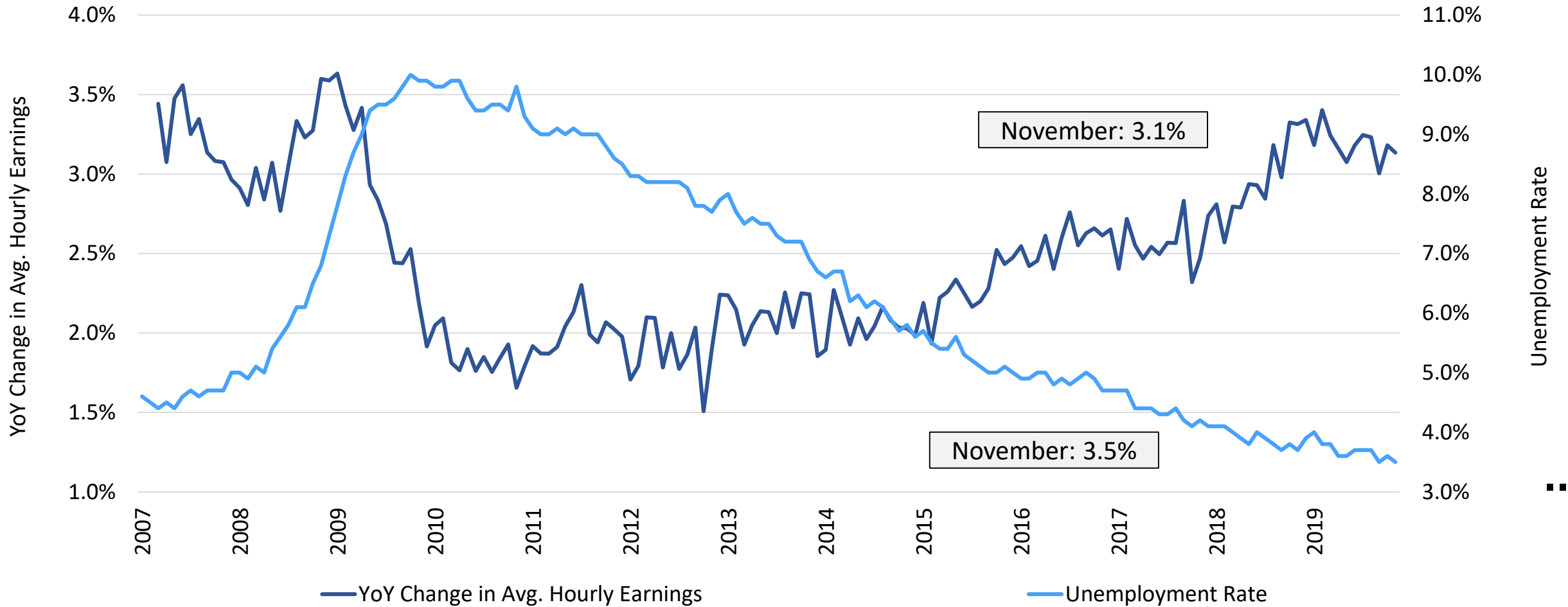
Tight Labor Market, Pulling People Off the Sidelines

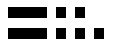


It is difficult to find labor at the right *price*, with the right *skills*, in the right *city*



Wage Growth Finally Emerging



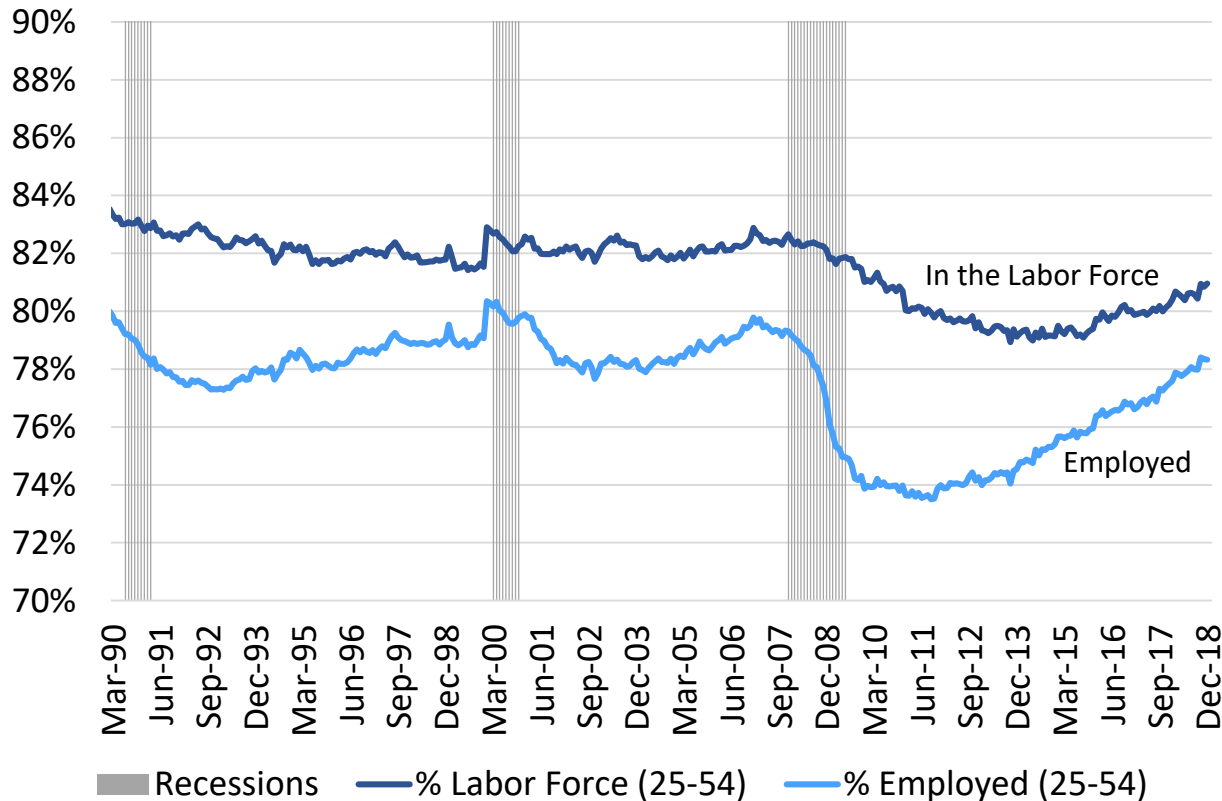


Reserve Supply of Labor

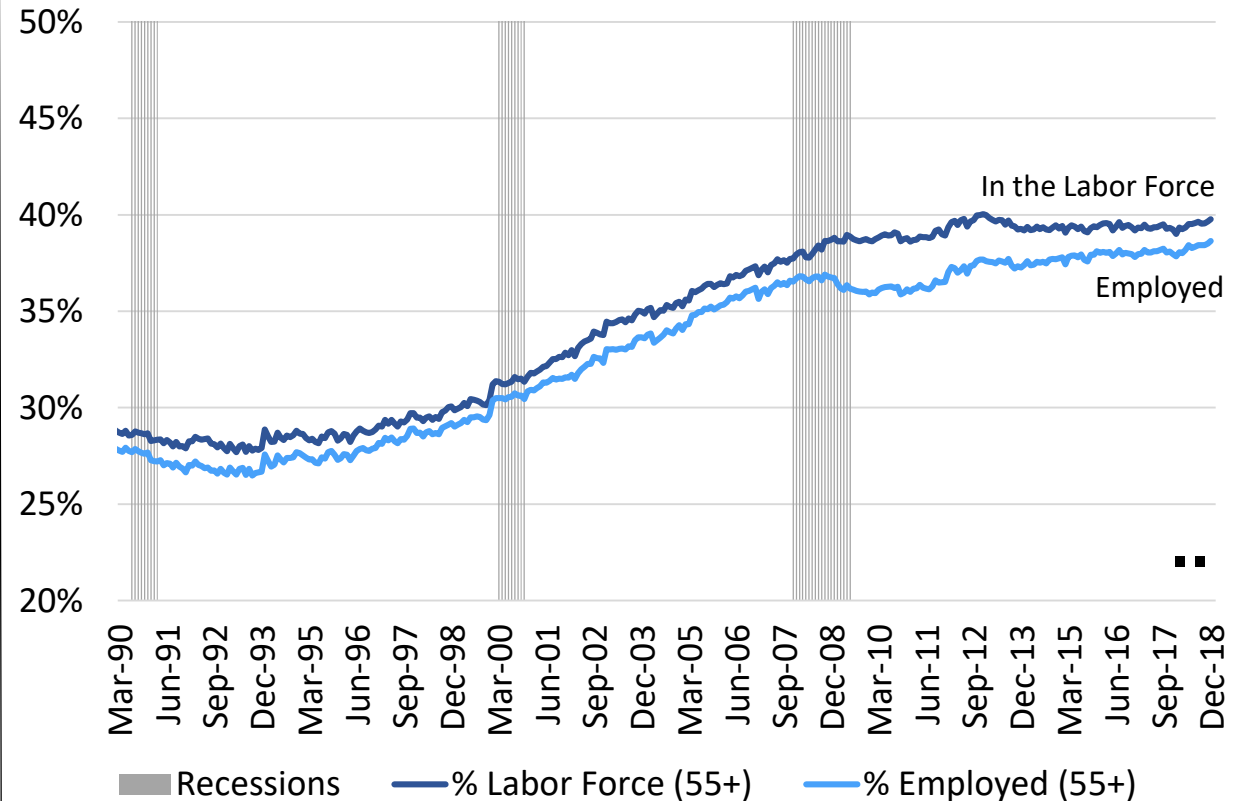


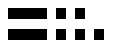
- Another 2.6% of the prime-age population could get engaged – approximately 3.4 million people
- Participation rates for people age 55+ are rising – buoying the expansion

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



Share of Age 55+ Population That Is...

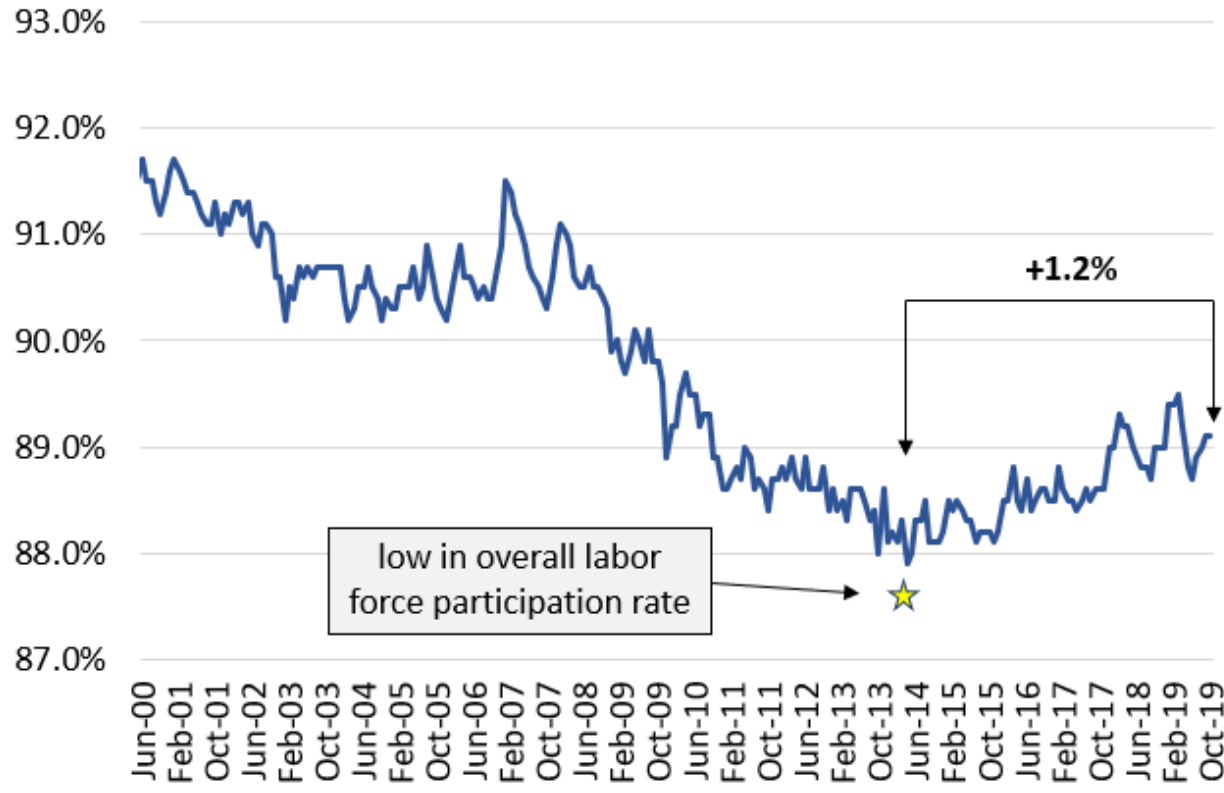




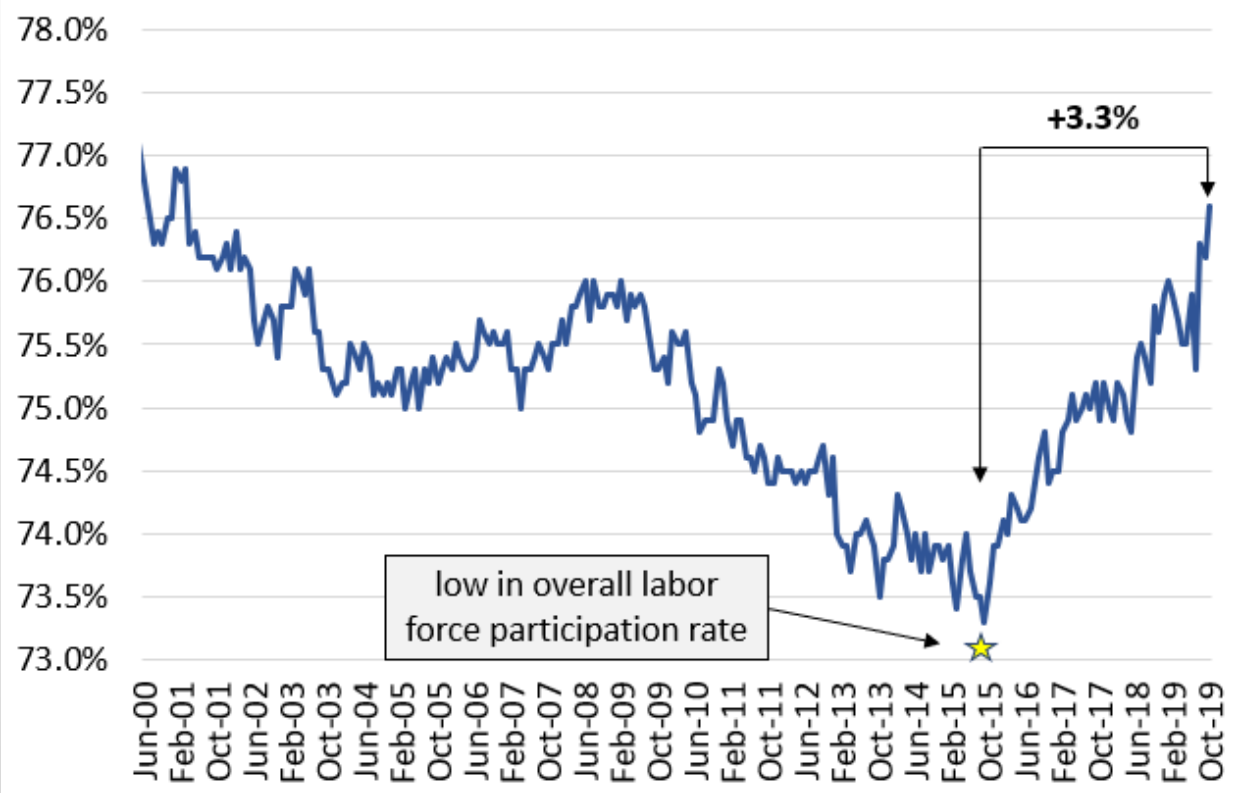
Increase in Labor Force Participation Rate Among 25-54 Year-Olds Driven by Women



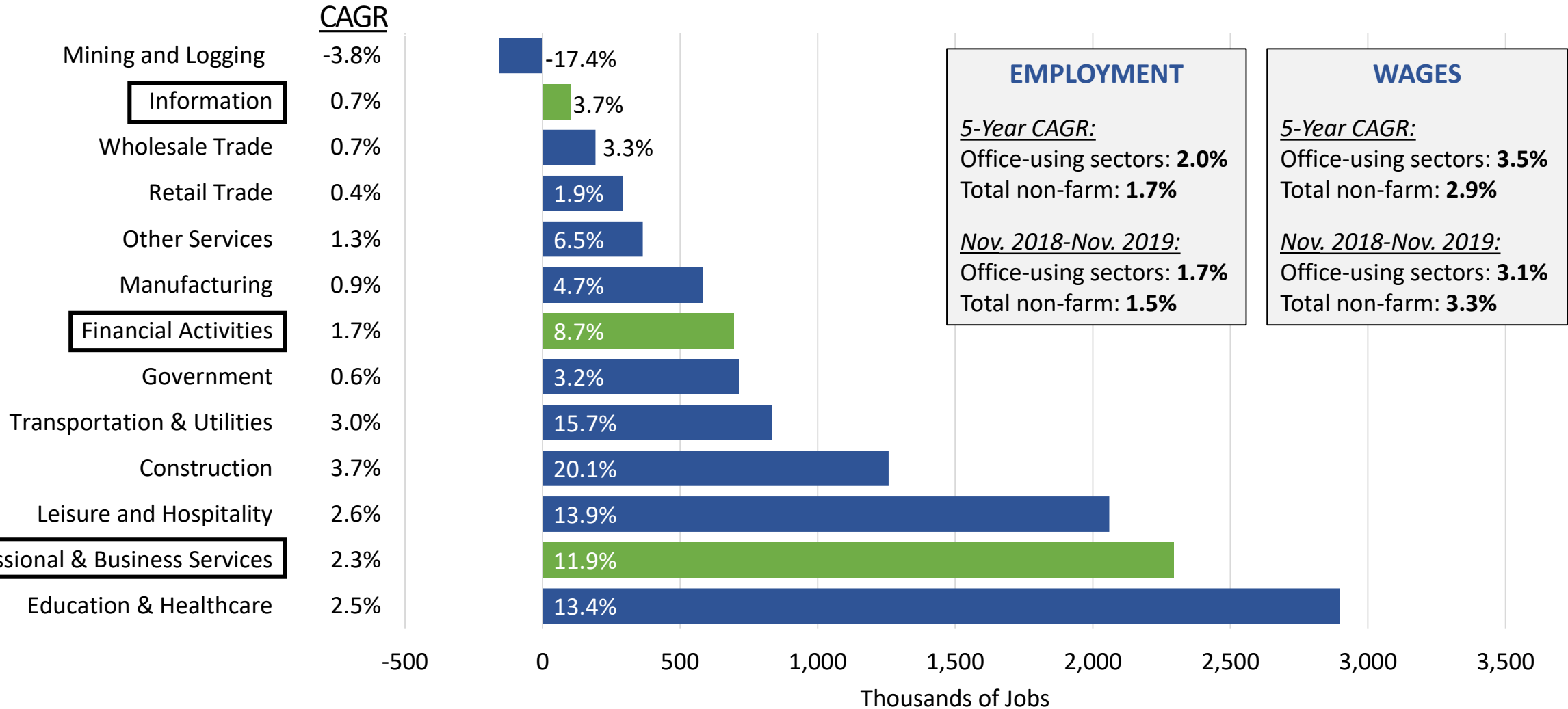
Labor Force Participation Rate Male, Ages 25-54



Labor Force Participation Rate Female, Ages 25-54

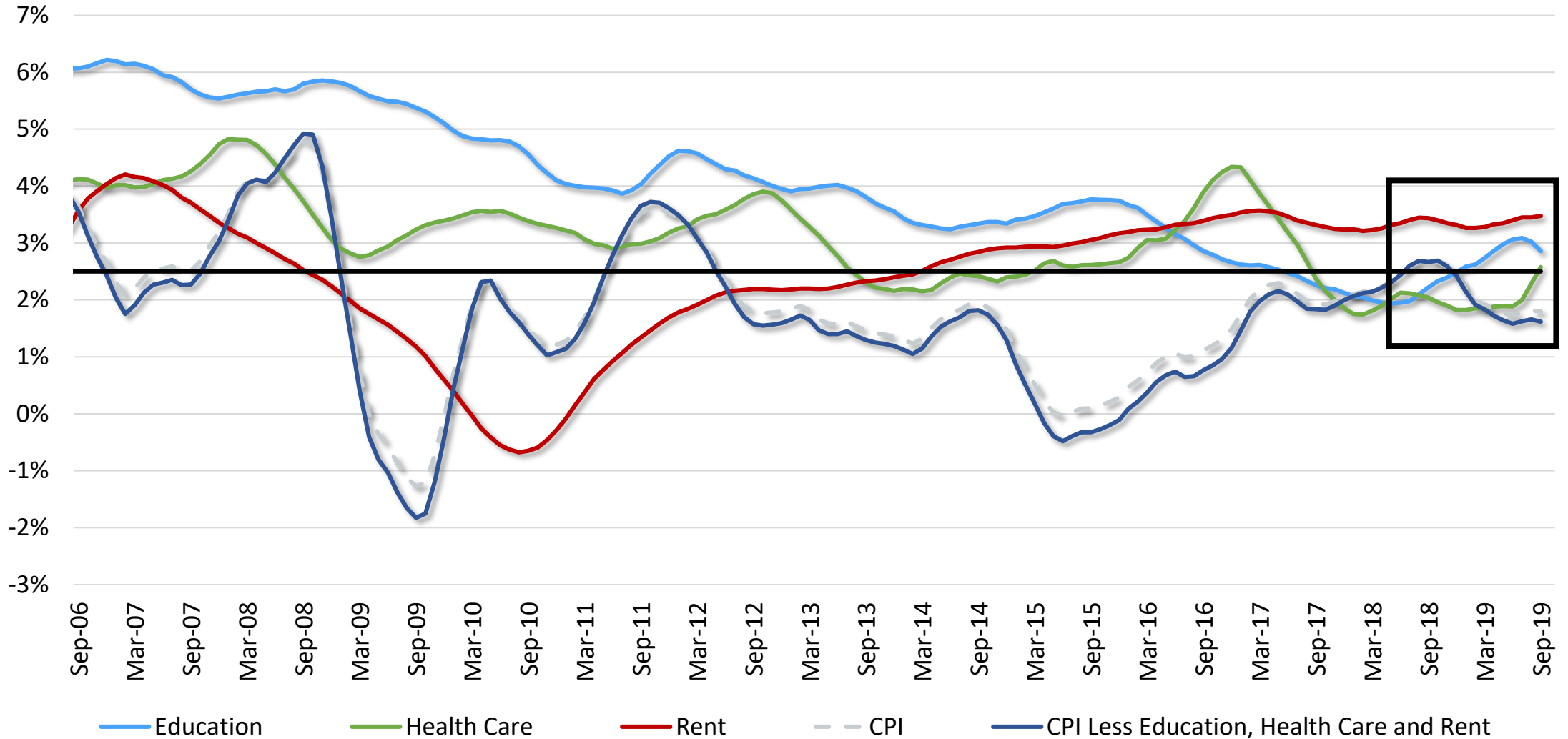


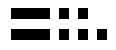
Office-Using Sectors Outpaced Overall Job Growth Over Last Five Years



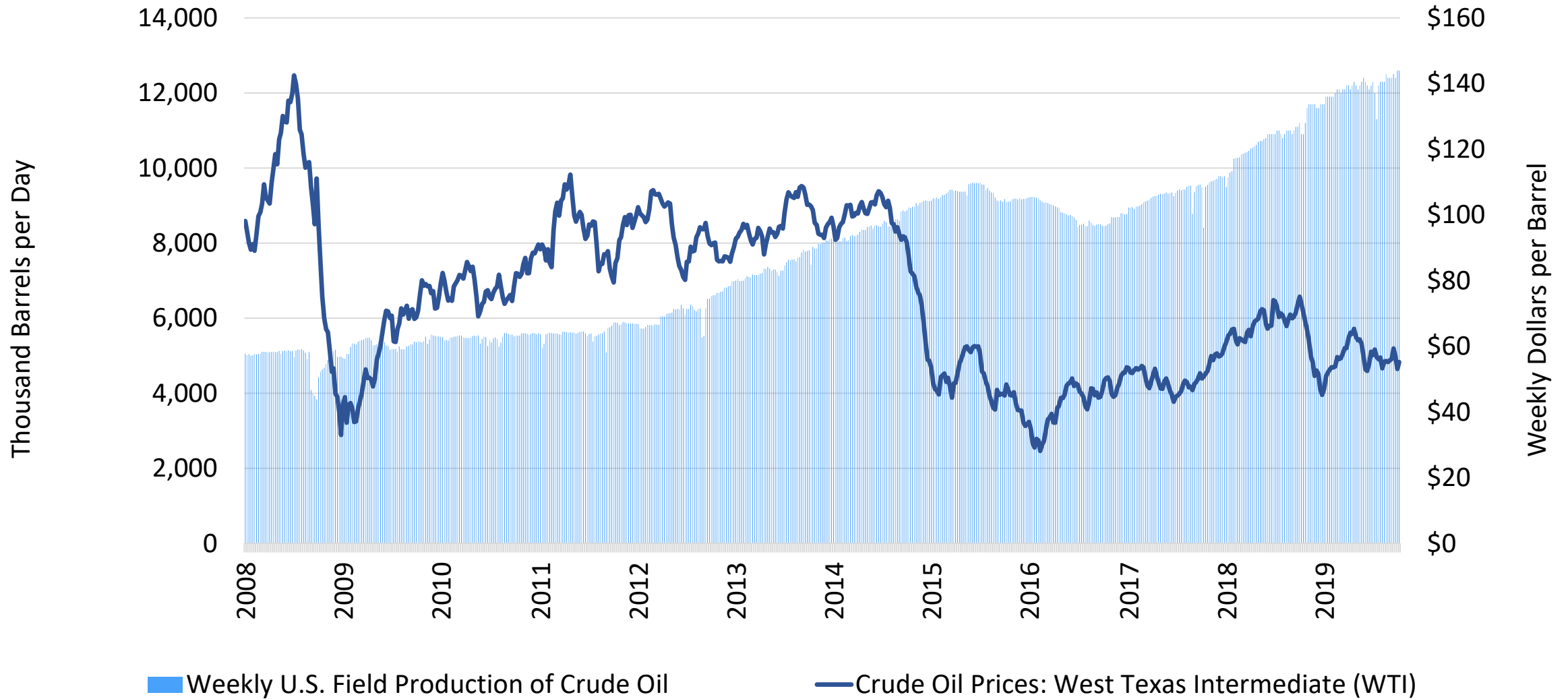
*November 2014-November 2019, Boxed labels are office-using sectors
Source: Moody's Analytics; Bureau of Labor Statistics (BLS)

Inflation Rising, But Unlikely to Break Out >2.5%



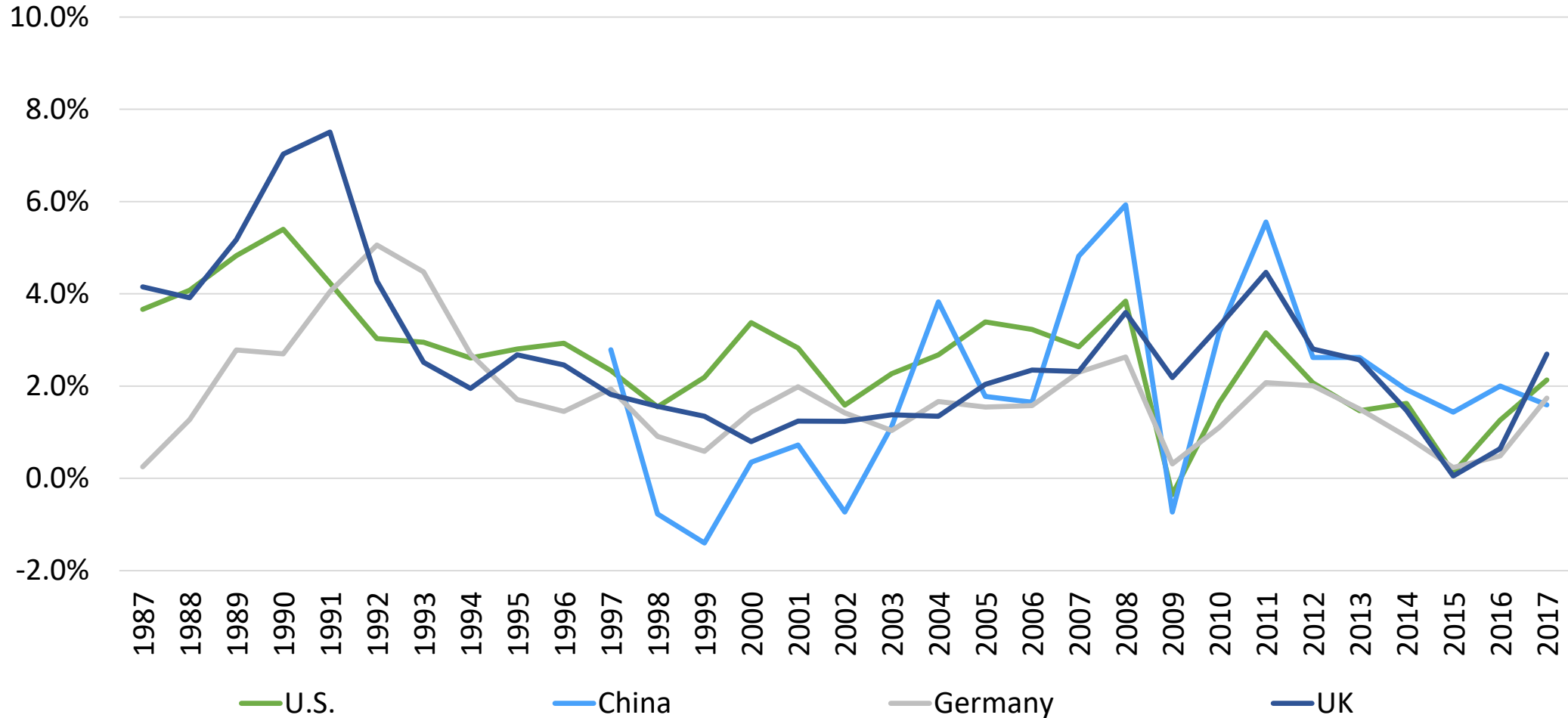


Why Is There No Inflation? U.S. Oil Is Flooding the Market

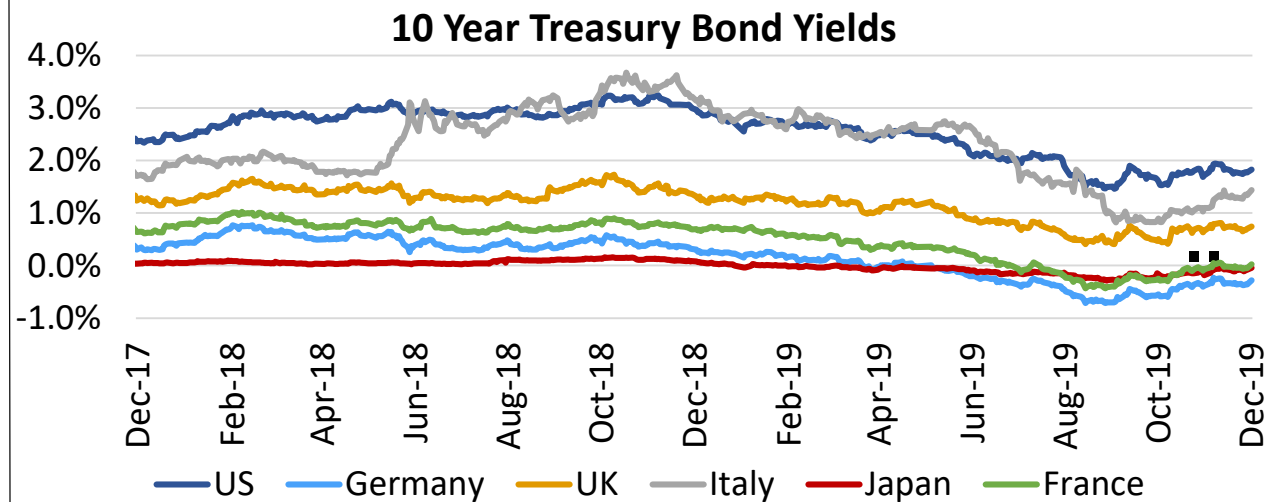
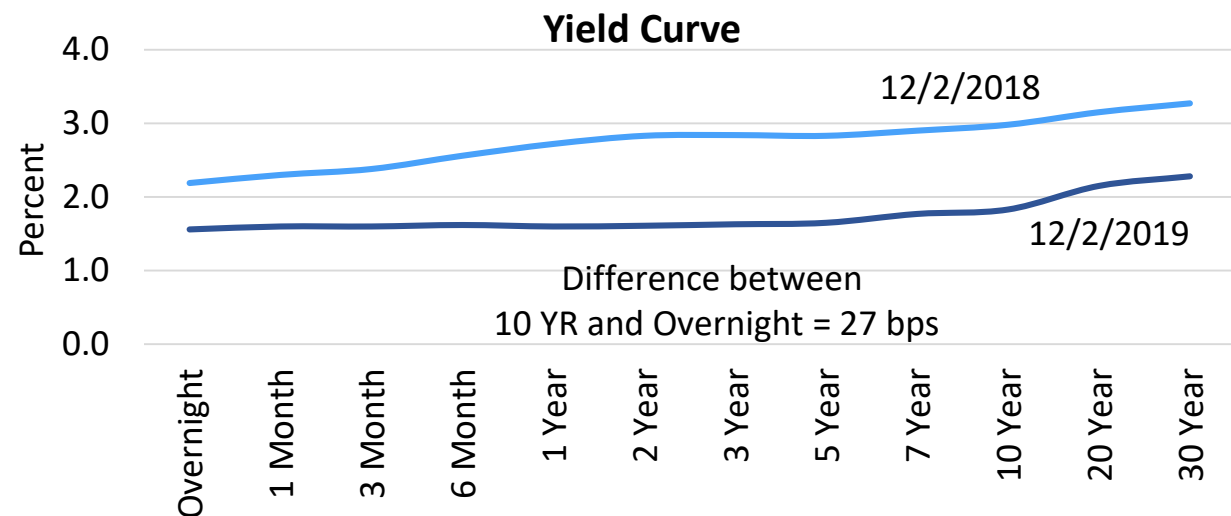
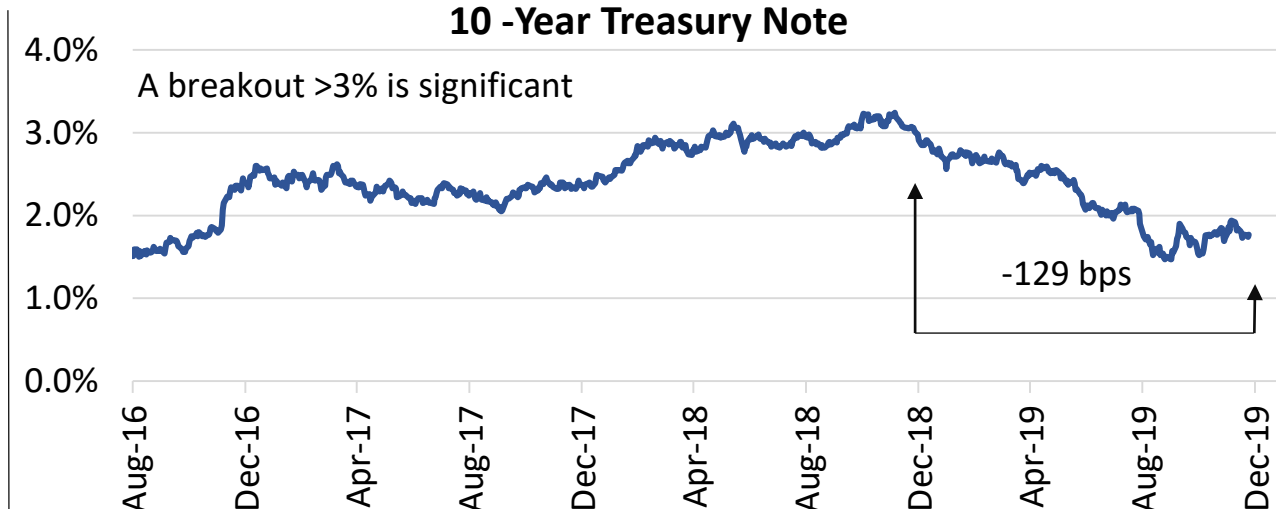


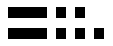
Inflation Going Down Is a Global Phenomenon

Inflation, Consumer Prices by Country



U.S. & International Financial Market





U.S. Federal Policy Mix is a Classic Glass Half Full/Glass Half Empty Situation

PRO-GROWTH

- Tax Reform
- Regulatory Relief
- Executive Orders
 - Energy
 - Finance
 - Labor Costs

**GENERALLY
POSITIVE
PROGRESS**

PRO-GROWTH BUT SLOW

- Infrastructure
- Education Reform
 - German Model
- Healthcare Reform

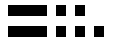
**PROGRESS IN TONE,
BUT NOT YET
SUBSTANTIVE**

ANTI-GROWTH

- Immigration Control
- Trade Renegotiation

**RECENT TARIFF MOVE
A POTENTIAL DRAG
ON GROWTH**





SUMMARY



1

The U.S. economy is in decent shape, but growth is choppy and is slowing

2

Unemployment remains very low & wage growth is good; September & October job gains were about average for this year

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

Fiscal policy is mildly pro-growth

- Capital still needs to be deployed





MULTIFAMILY FUNDAMENTALS





Demographic & Lifestyle Changes



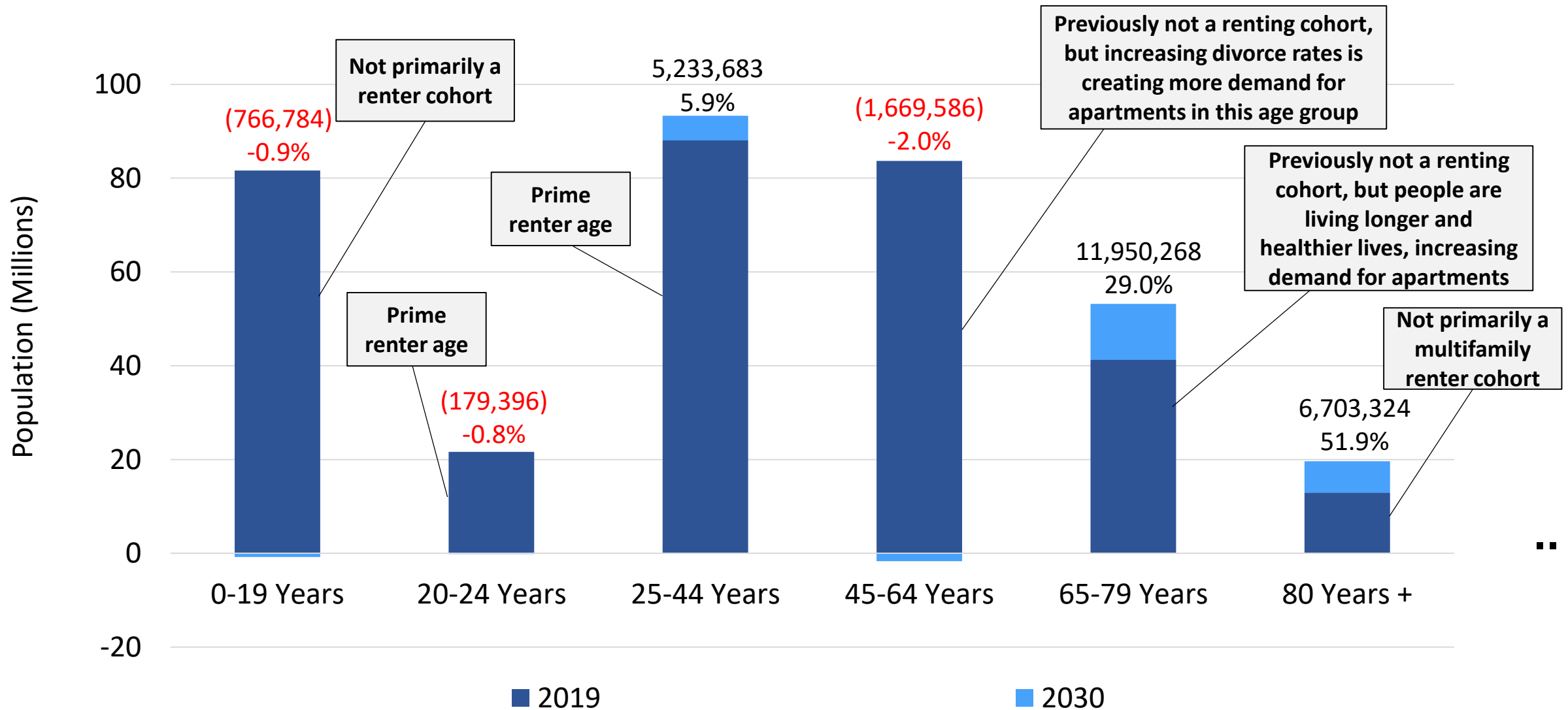
- Aging population
- Increasing divorce rates
- Young people living at home
 - Student debt burden
- Lifestyle changes
 - People getting married later in life
 - People having less kids and later in life

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

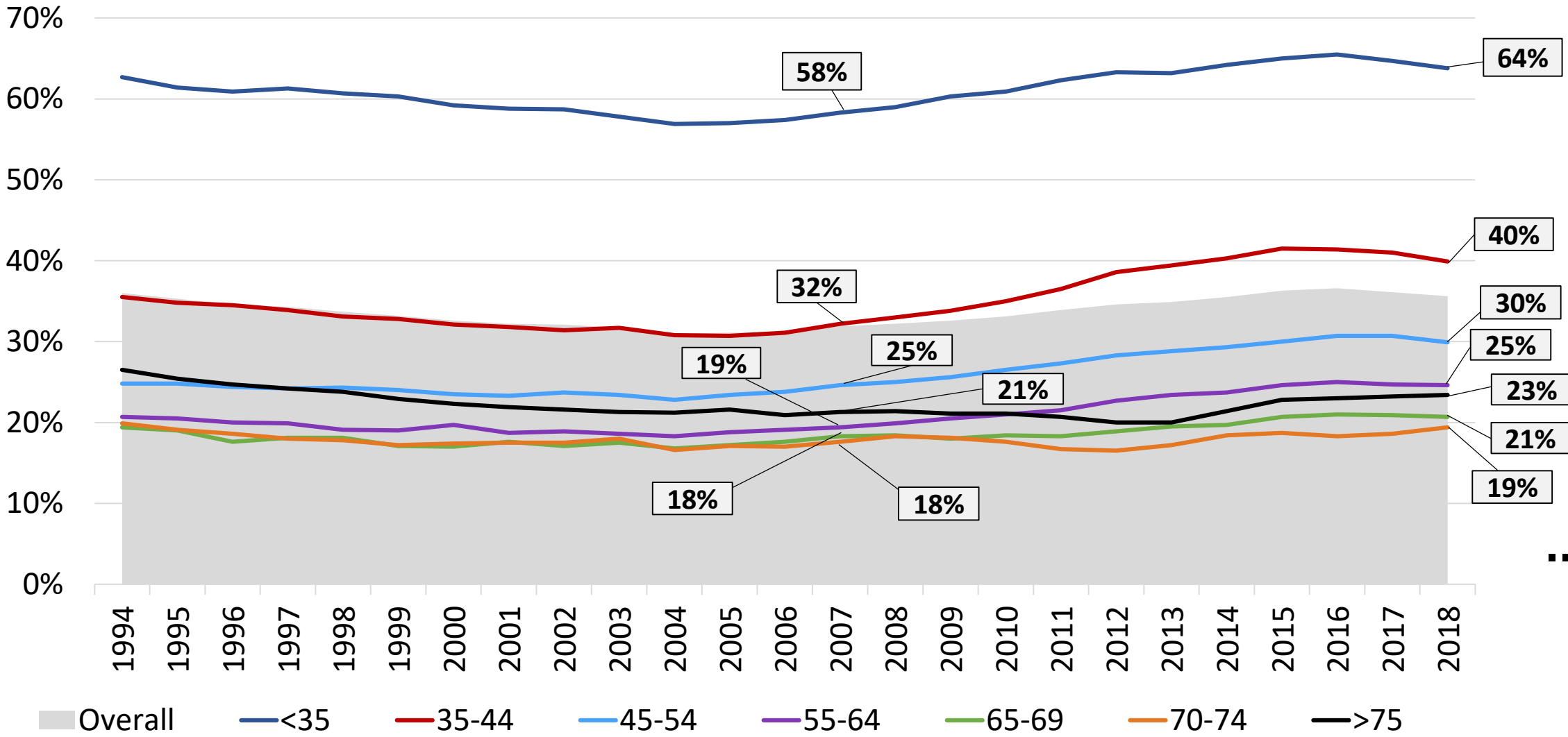


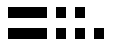


Within Each Age Group, There Are Drivers of Demand

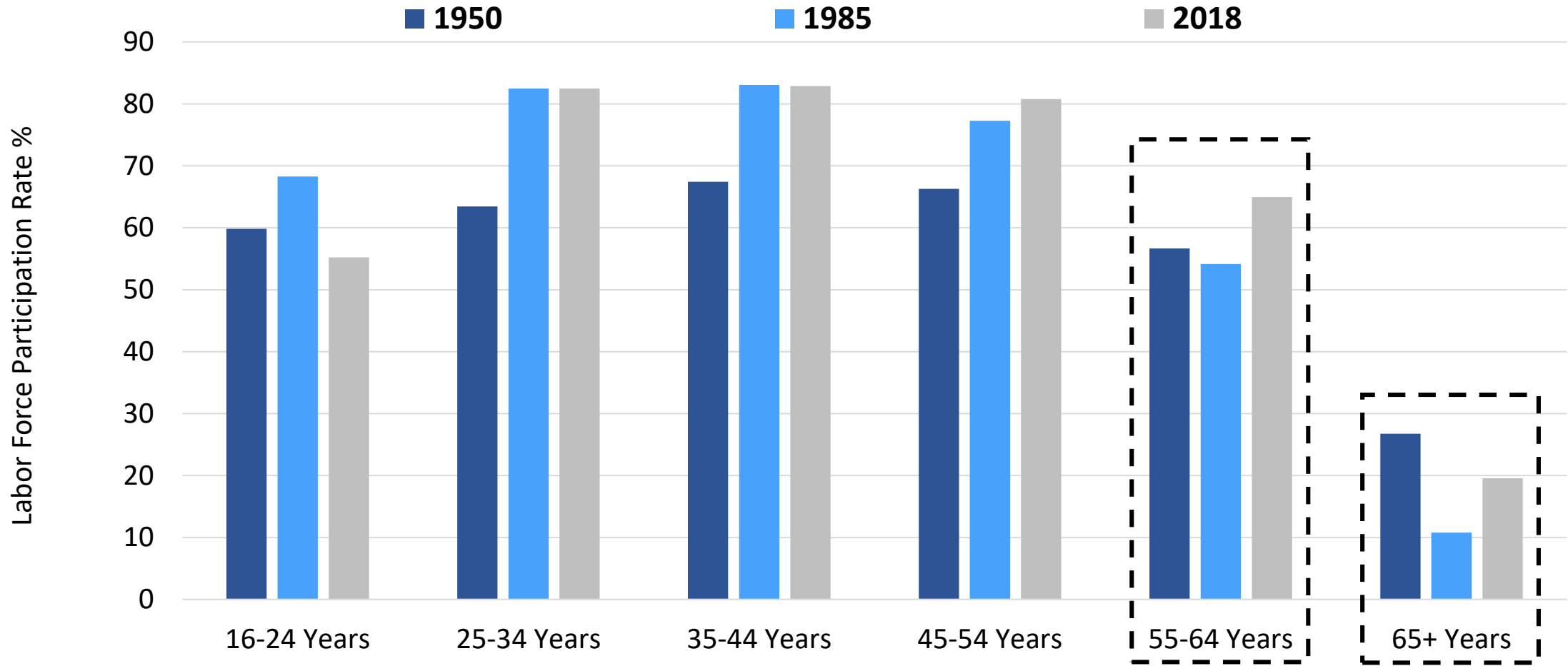


Historic Rentership by Age Cohort

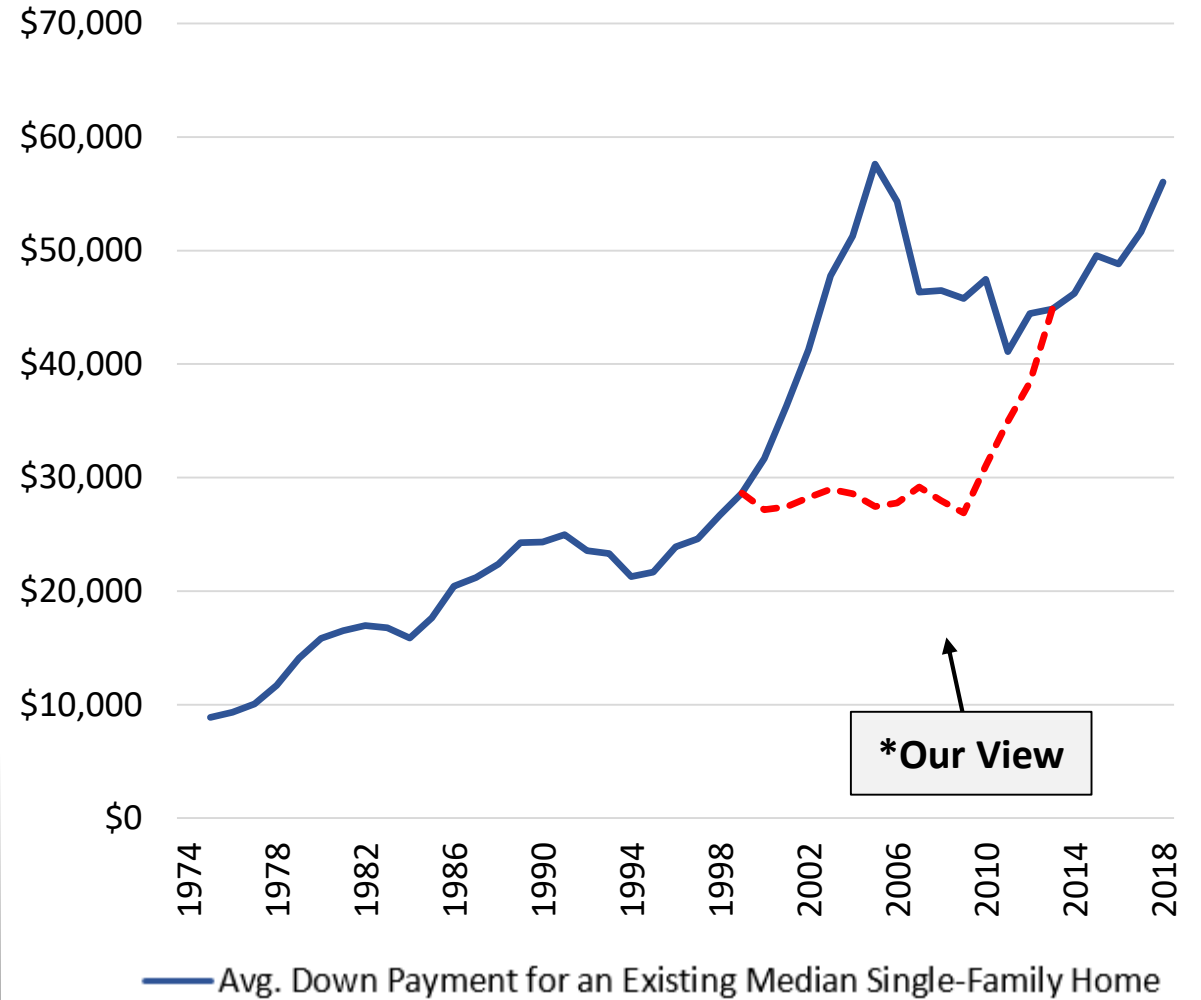
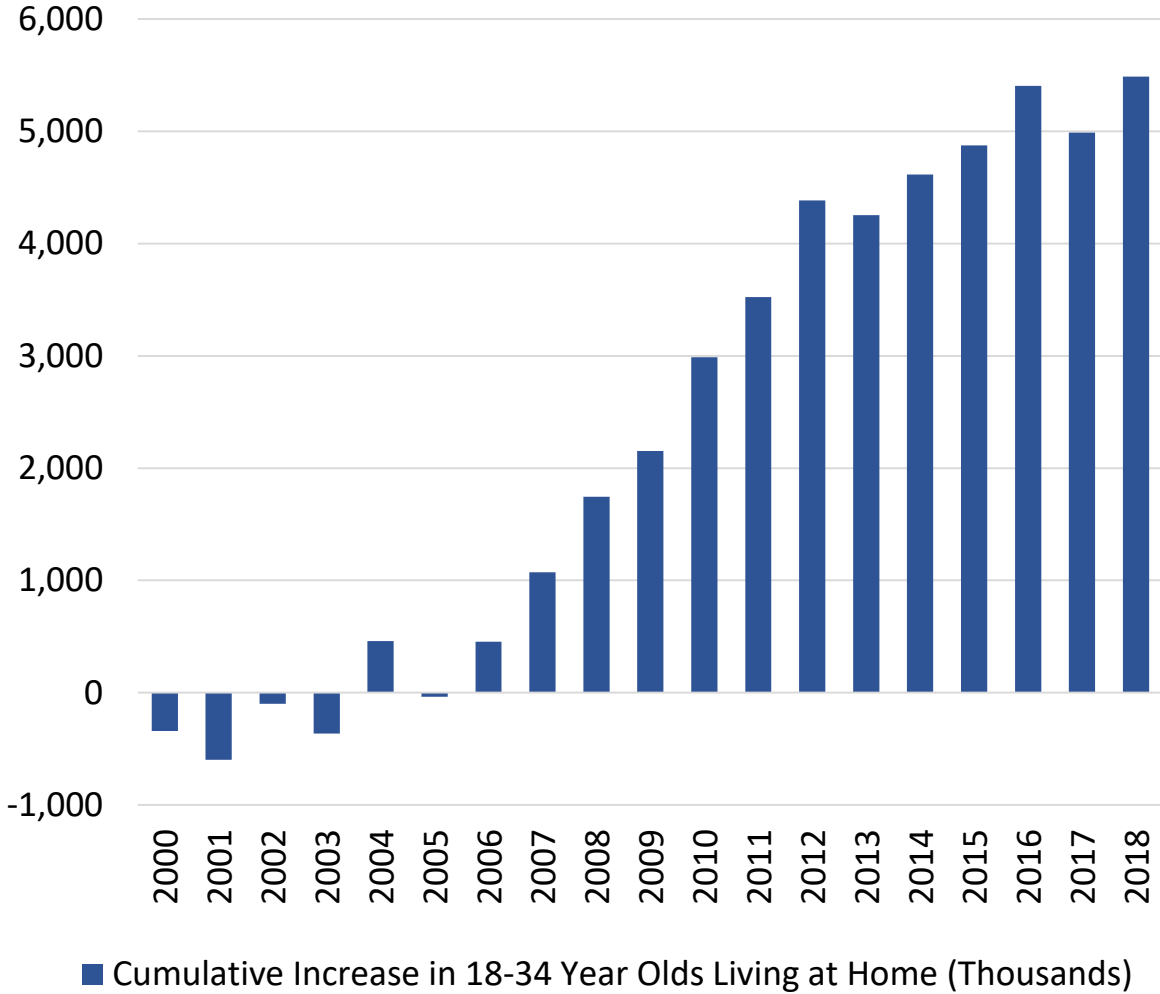




More People Working Longer Impacts the Multifamily *and* Office Industries

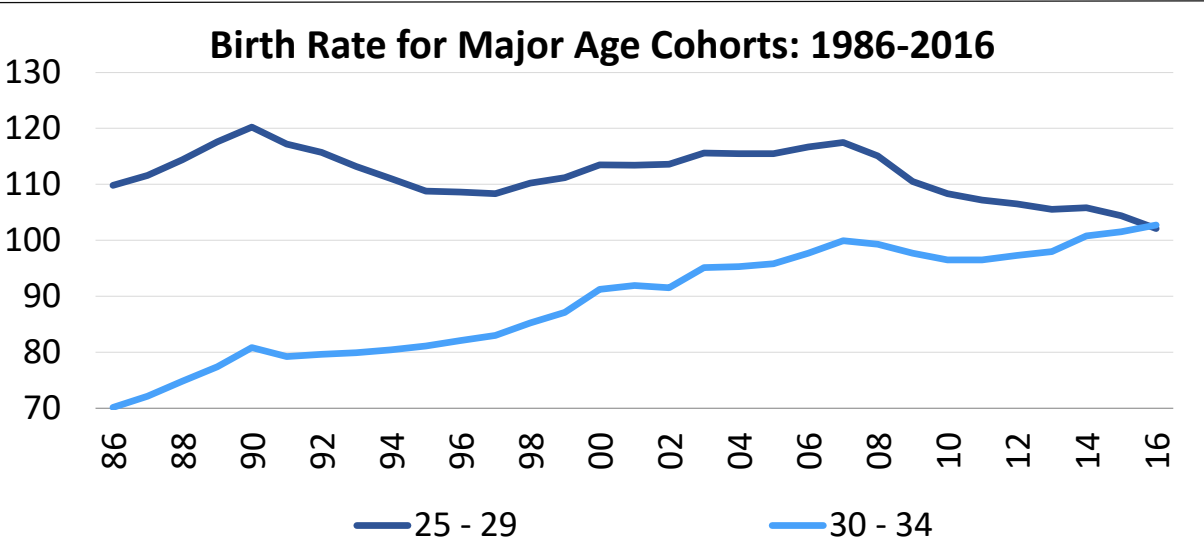
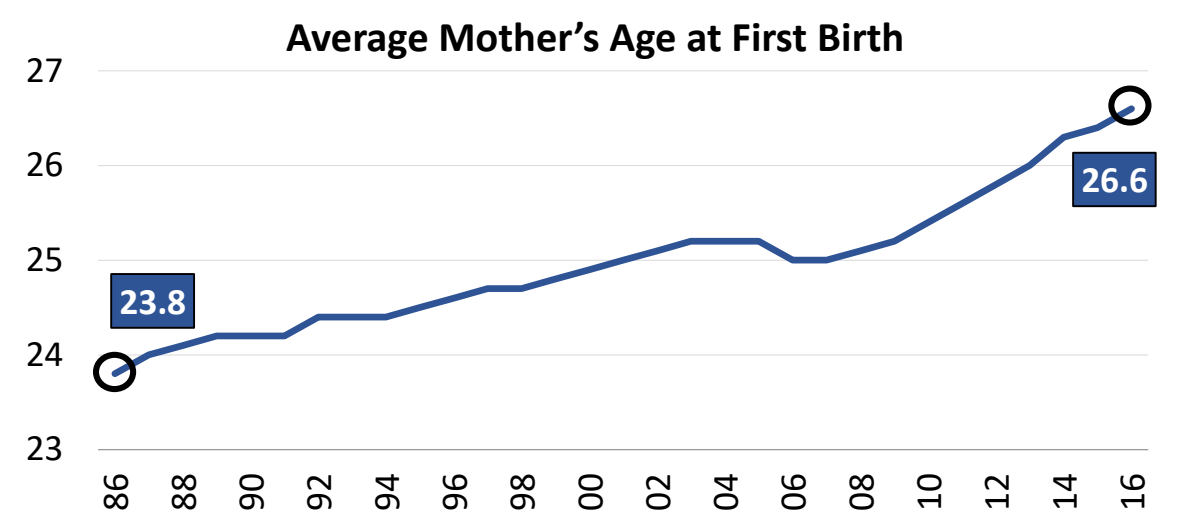
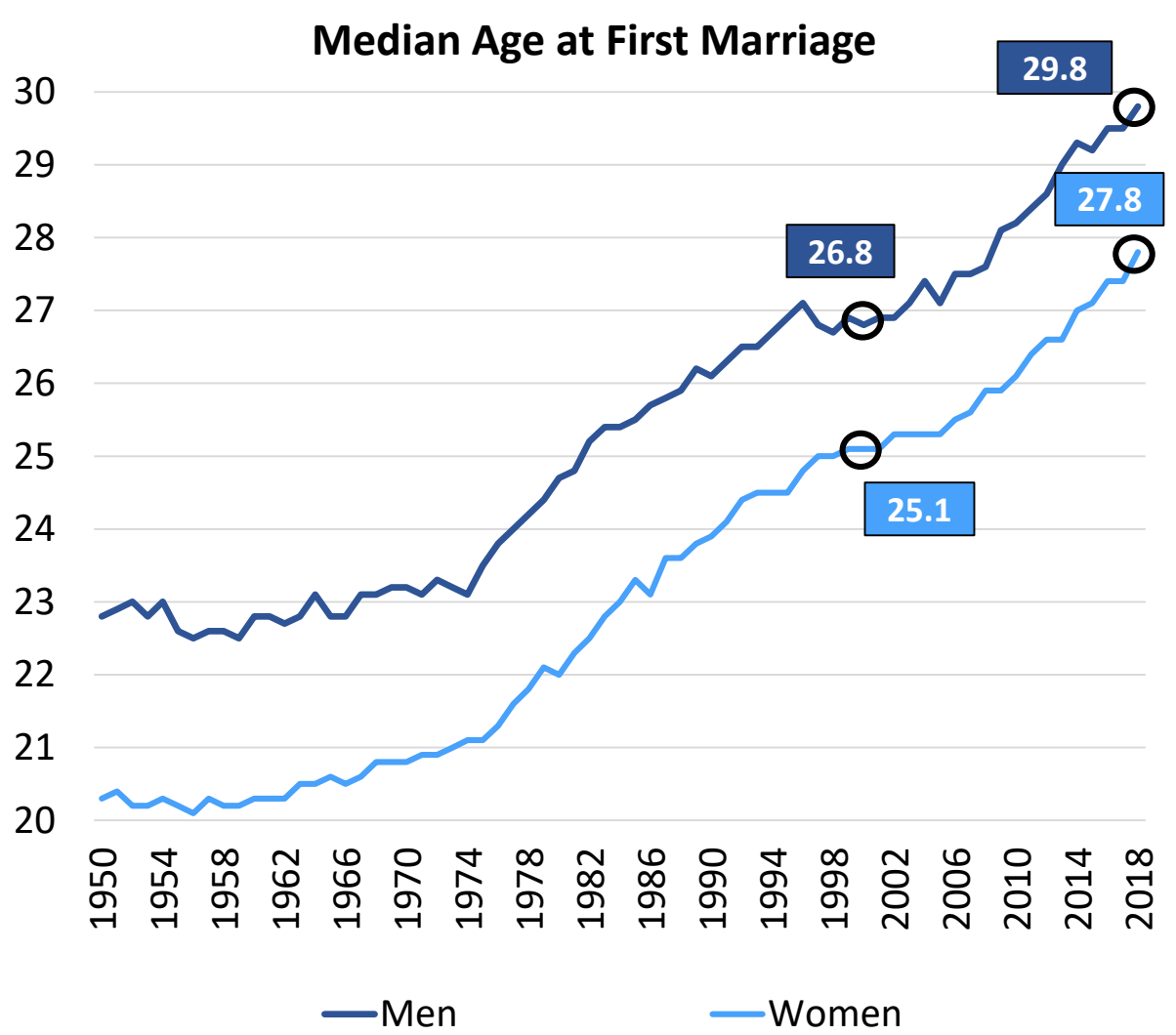


More Young People Living at Home as Average Down Payment for a Median Single Family Home Increases

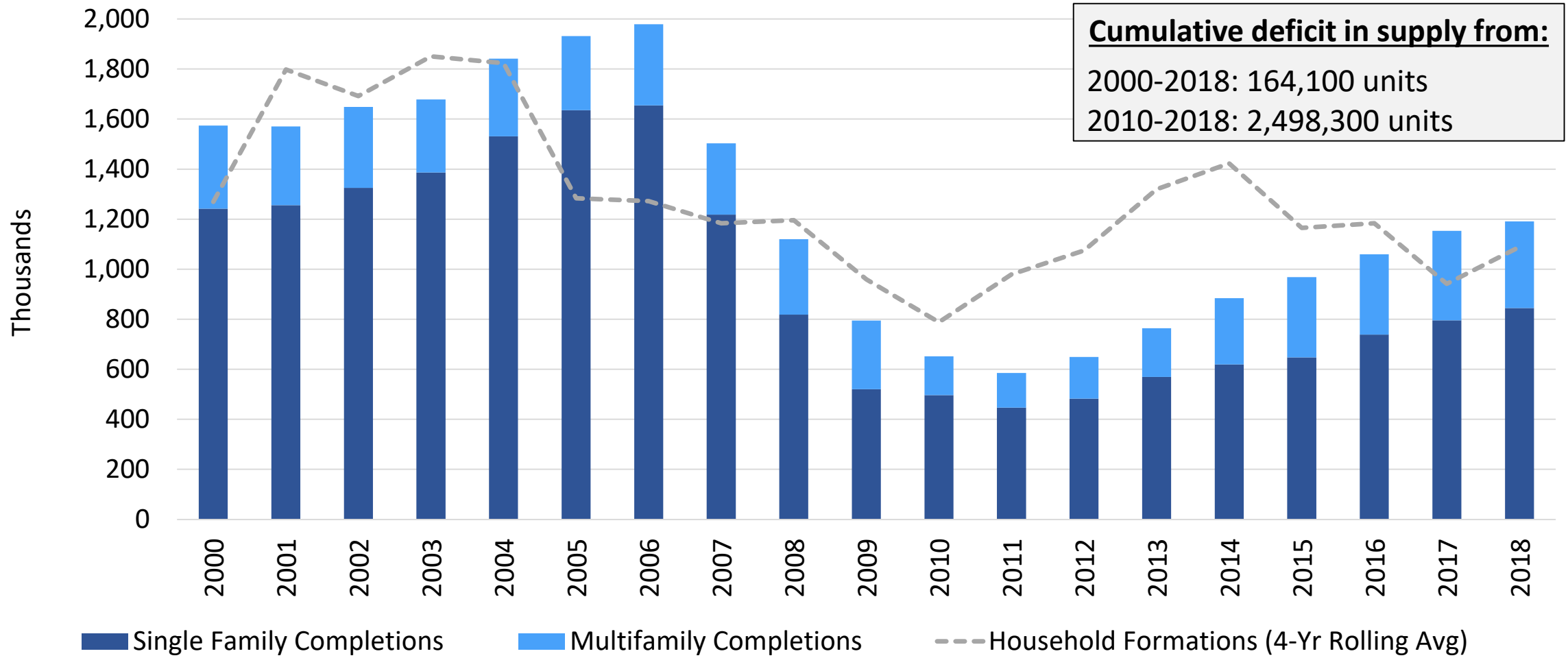




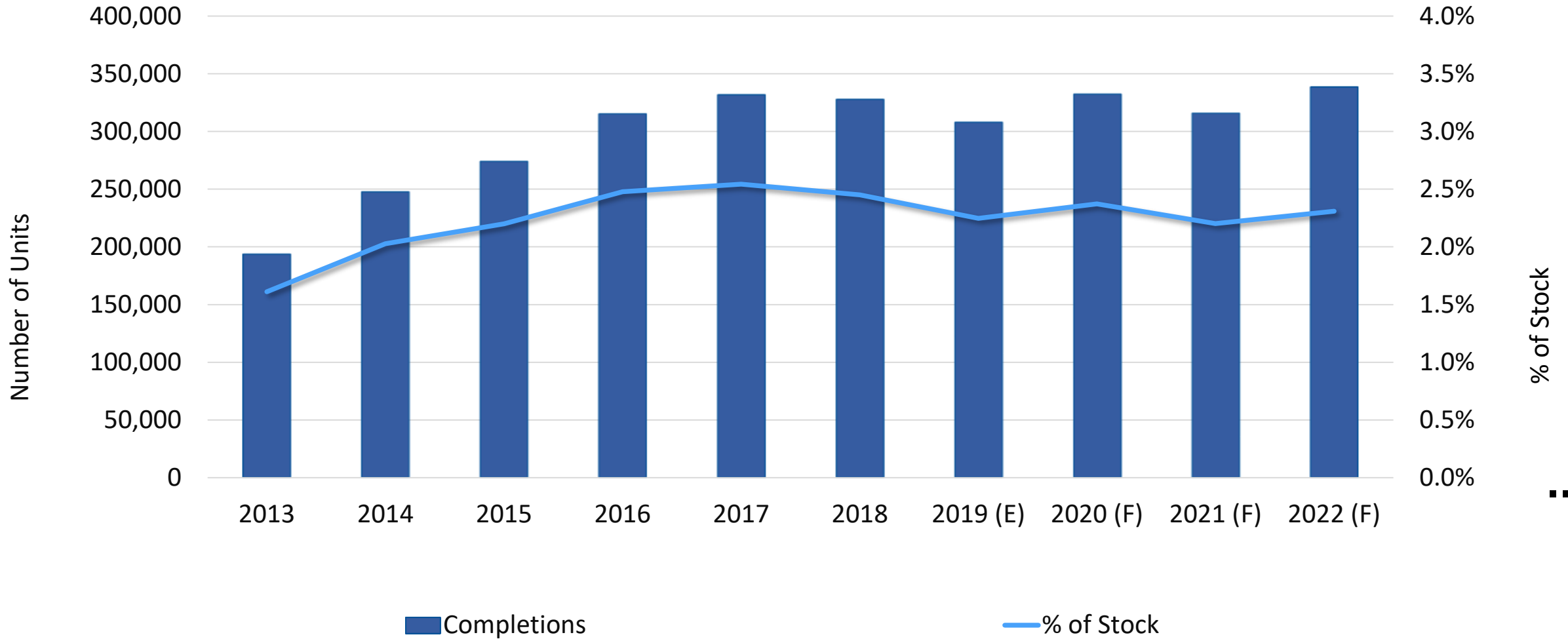
Lifestyle Changes Fueling Strong Demand for Multifamily



Multifamily Construction Catching Up to New Household Formation

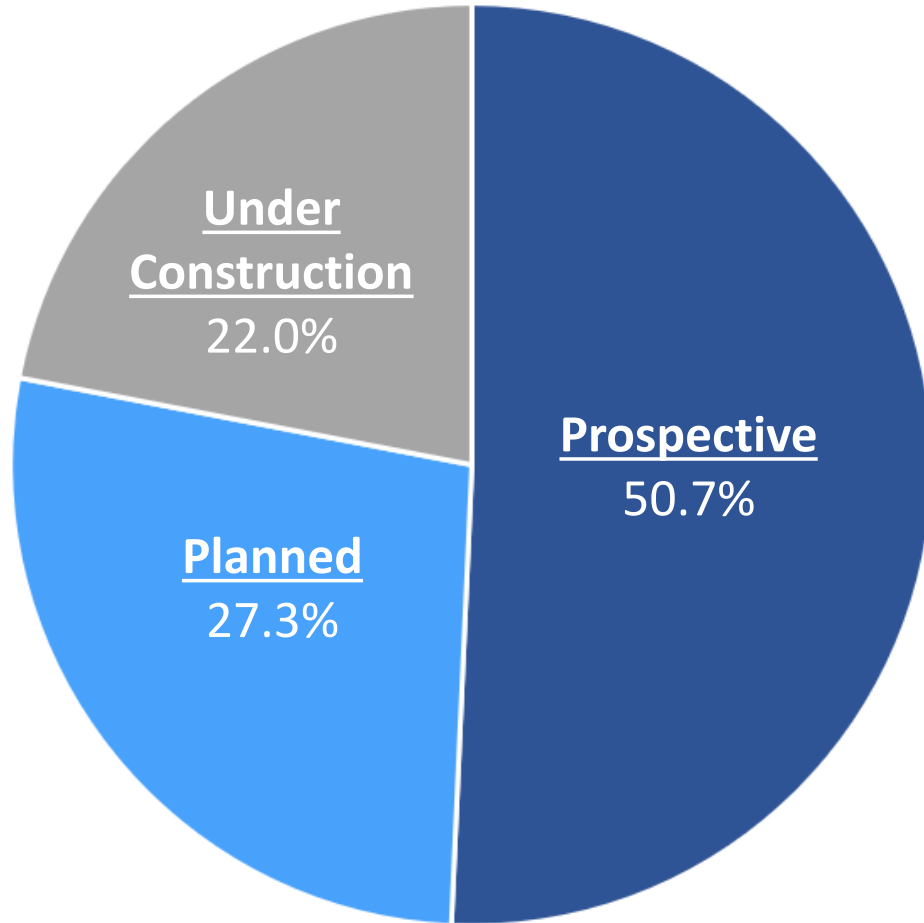


Multifamily Supply Has Levelled Out; But We See Another Ramp Up Coming





Based Upon What We See, New Multifamily Supply Is Unlikely to Break Out Above 330K a Year

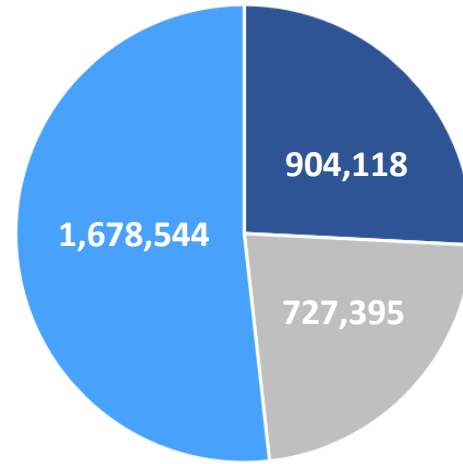


Property Status	Units	% of Total
Prospective	1,678,544	50.7%
Planned	904,118	27.3%
Under Construction	727,395	22.0%
TOTAL:	3,310,057	100.0%





Where Is Future Multifamily Supply Concentrated?



■ Units Under Construction

■ Units Planned

■ Prospective Units

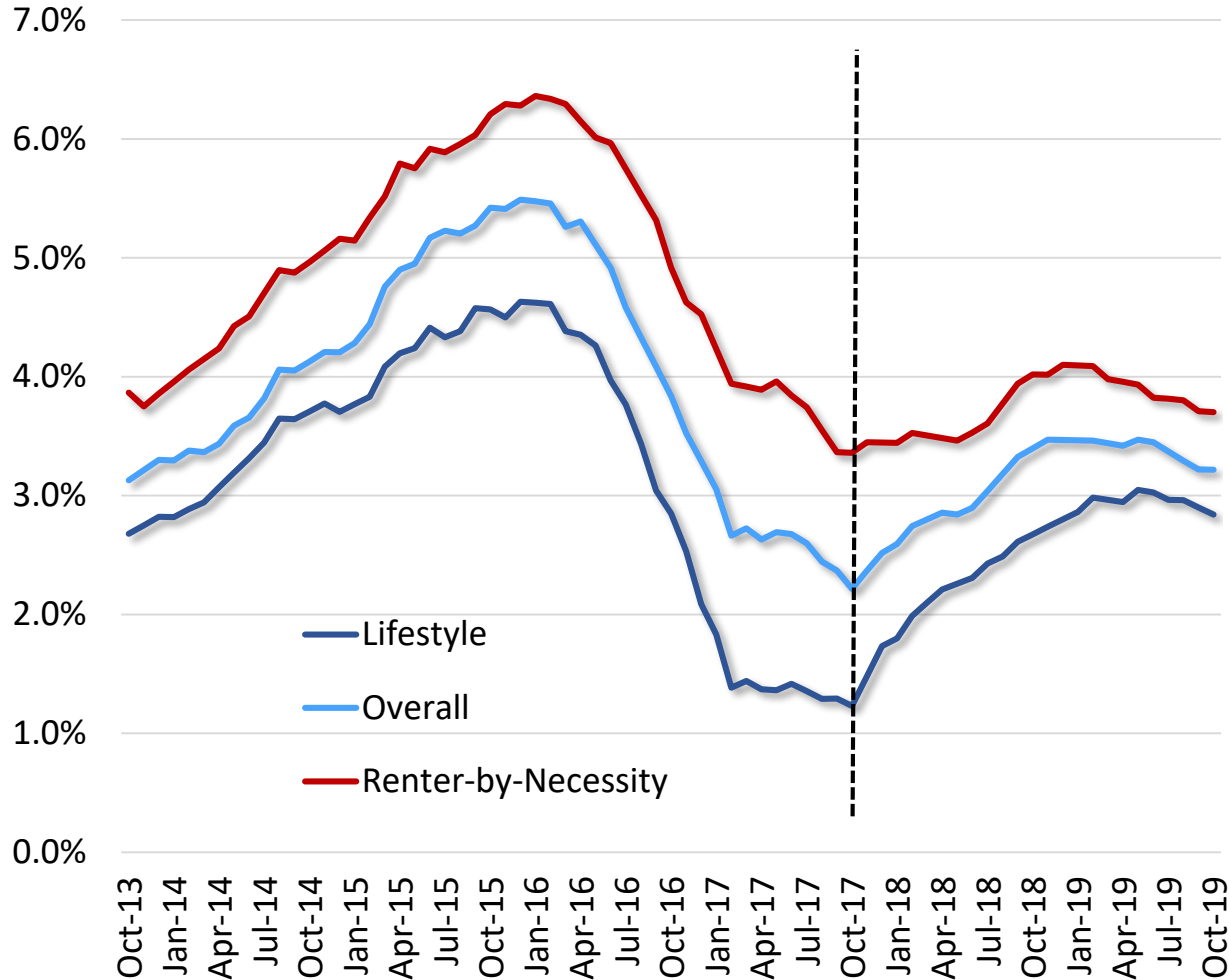
Top 10 Markets	Units	UC as a % of Existing Stock
Miami	16,708	13.0%
Reno	4,837	12.7%
Salt Lake City	11,662	11.6%
Boise	2,134	11.2%
Metro Los Angeles	19,932	11.1%
Boston	24,519	11.0%
Austin	25,709	10.9%
Southwest Florida Coast	6,976	10.7%
Queens	10,650	10.7%
Charleston	6,482	10.1%

Top 10 Markets	Units	Planned as a % of Existing Stock
Southwest Florida Coast	13,933	21.5%
Miami	27,529	21.5%
Urban Chicago	34,835	20.1%
Wilmington	3,796	19.2%
Northern New Jersey	38,541	17.6%
Asheville	2,864	17.1%
Fort Lauderdale	16,301	16.2%
Orlando	33,412	15.5%
West Palm Beach	10,149	15.3%
Long Island	7,068	14.2%

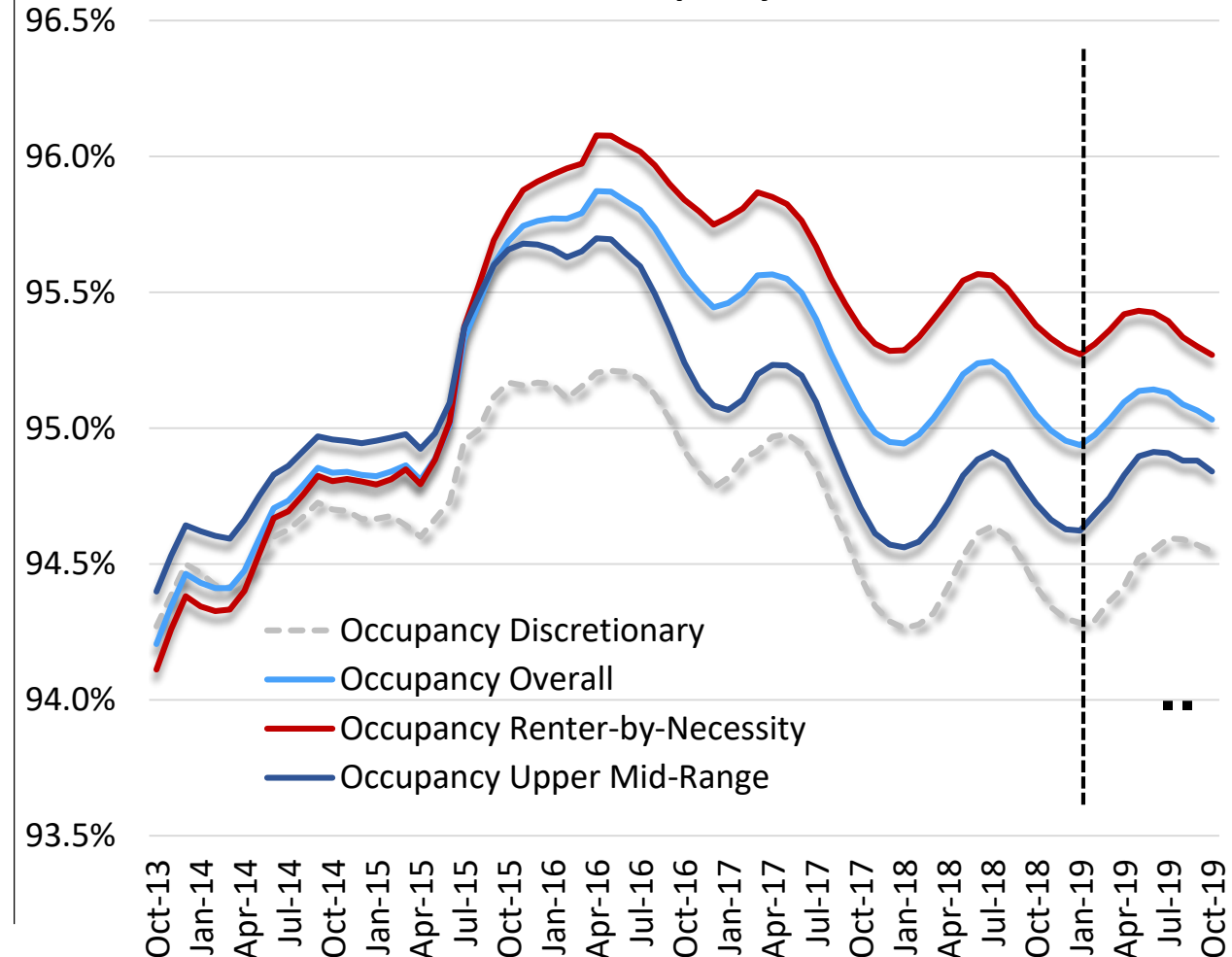
Top 10 Markets	Units	Prospective as a % of Existing Stock
Miami	81,328	63.4%
San Francisco Peninsula	49,188	40.9%
Southwest Florida Coast	22,744	35.0%
Bay Area - South Bay	43,925	34.9%
Bay Area - East Bay	44,504	32.8%
Metro Los Angeles	57,804	32.2%
Northern Virginia	60,143	27.4%
West Palm Beach	17,699	26.7%
Washington DC	79,227	25.7%
Fort Lauderdale	25,843	25.7%

Multifamily Rent Growth Has Fallen While Occupancy Levels Off

Rent Growth

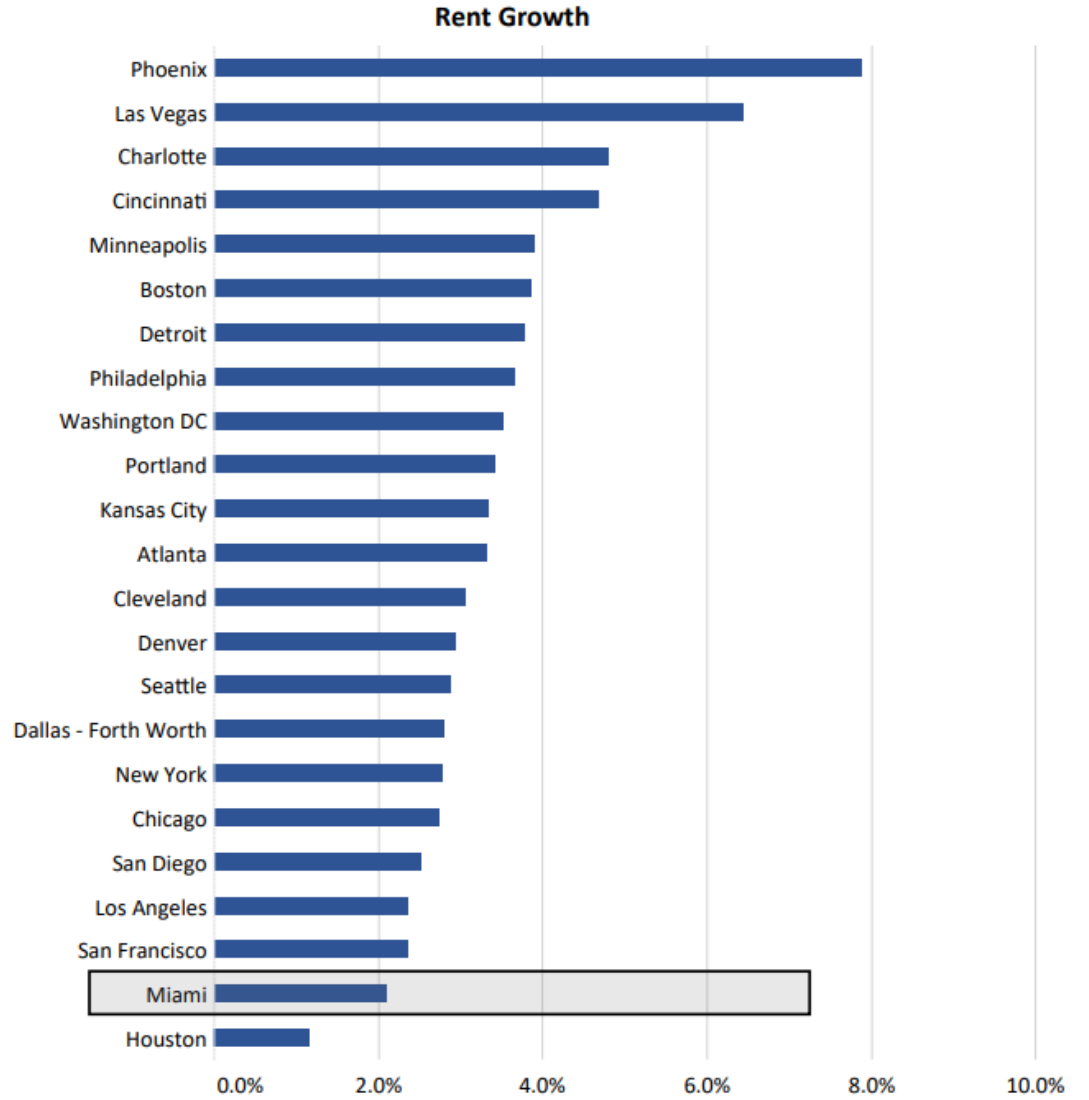


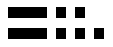
Occupancy



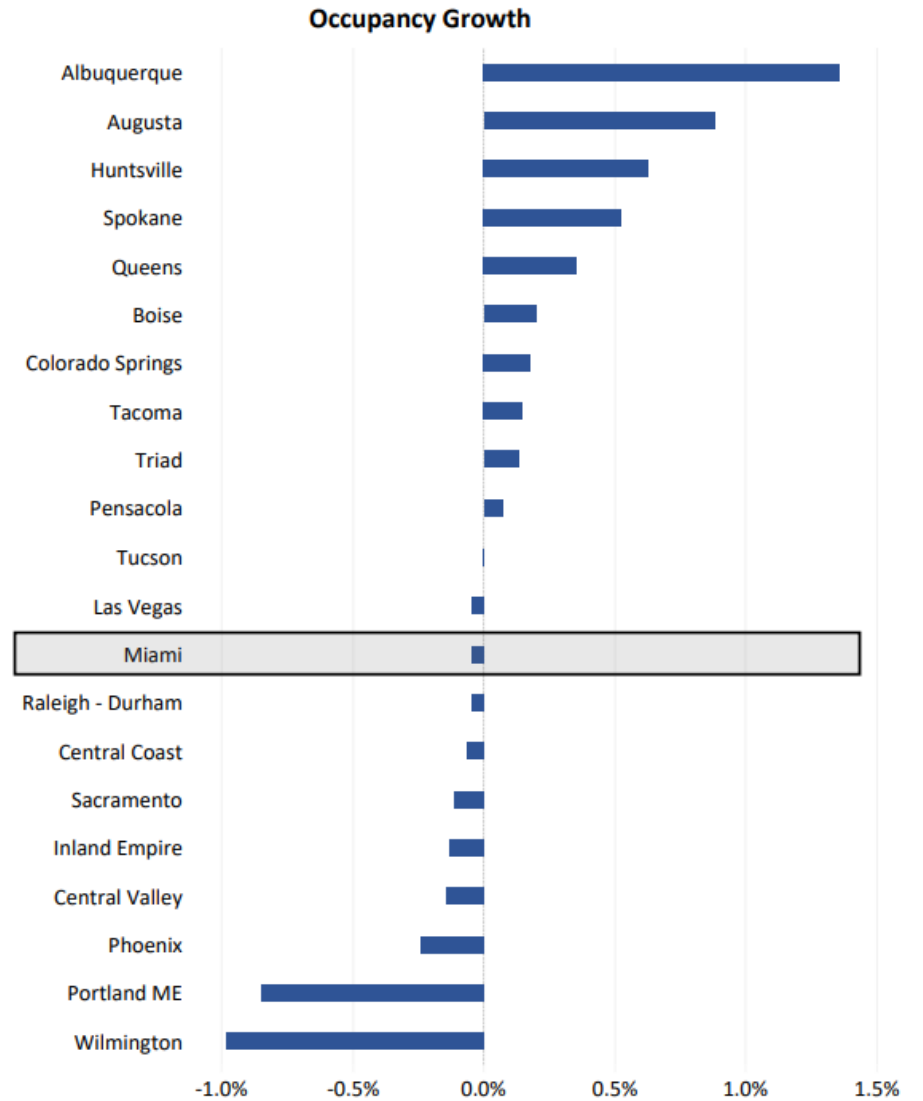
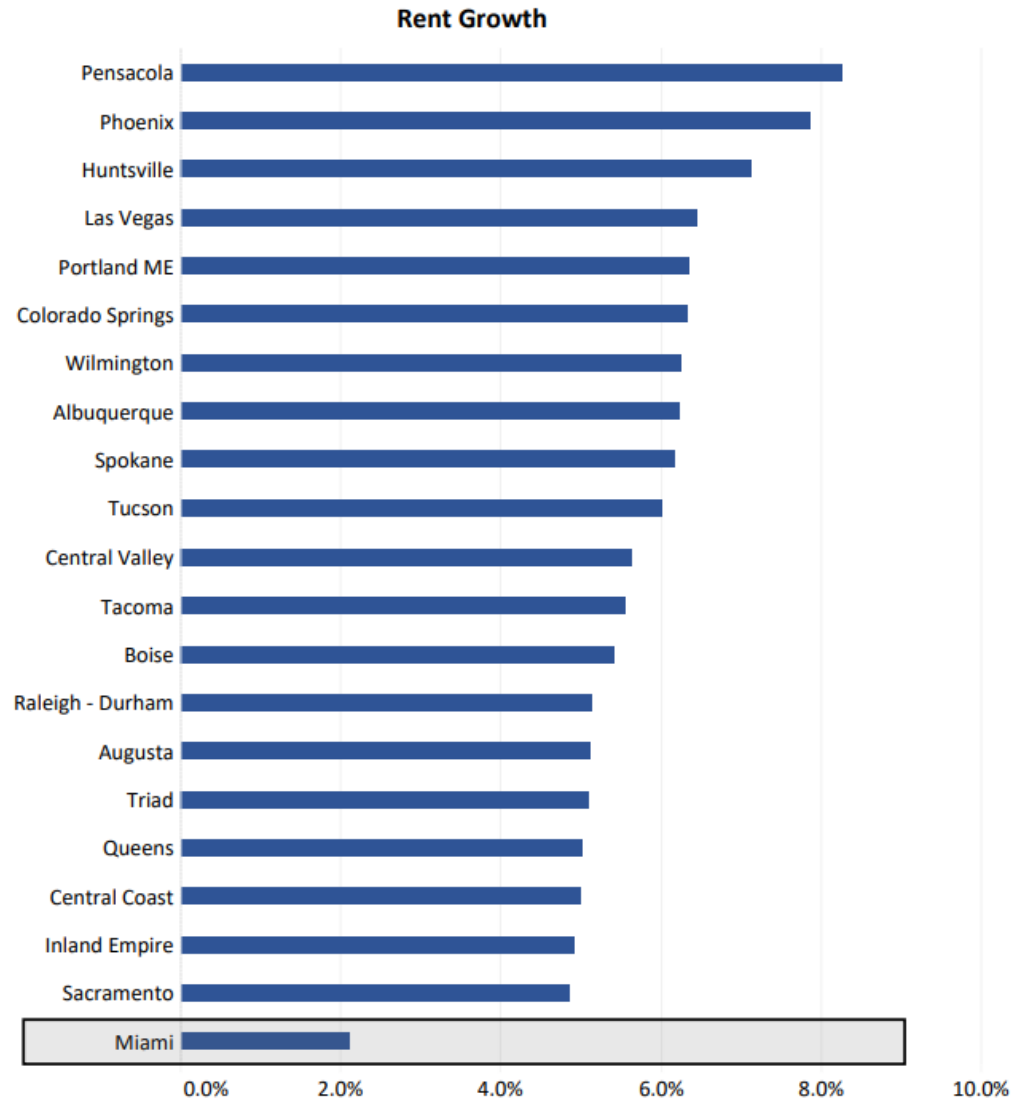


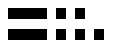
Major Market Multifamily Rent & Occupancy Growth





Ranked Multifamily Rent & Occupancy Growth

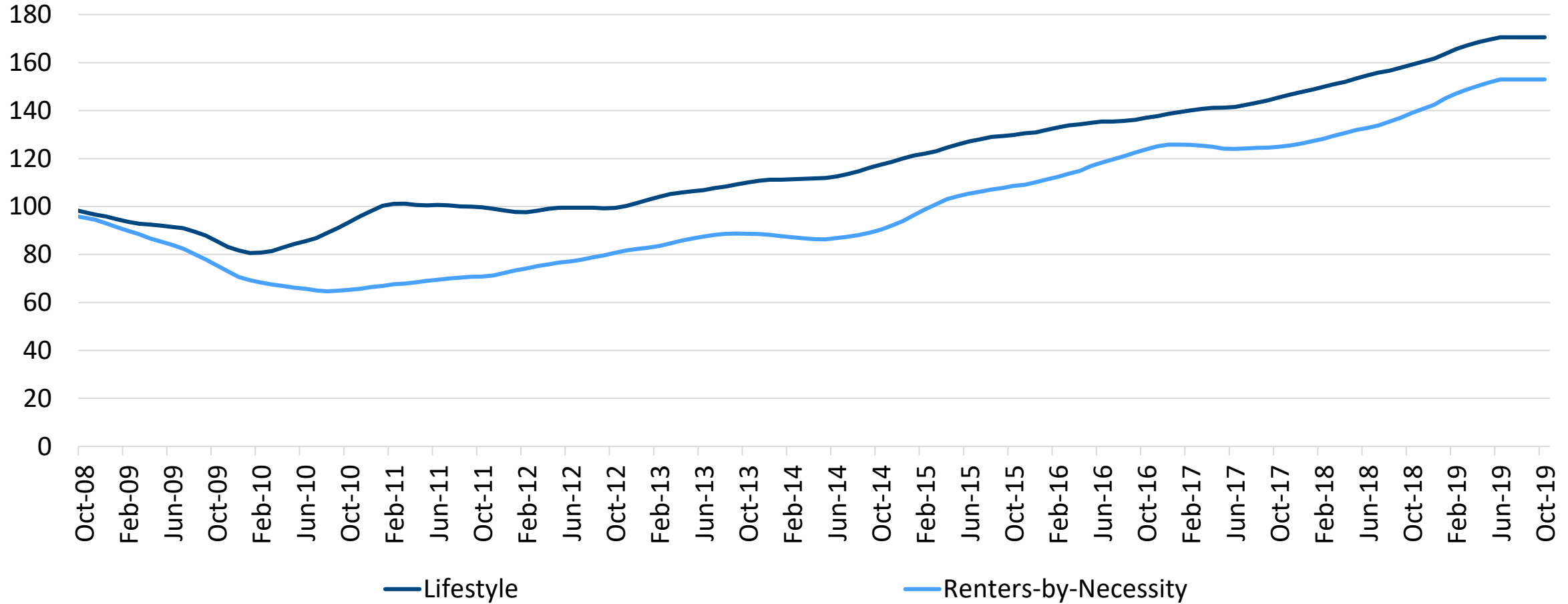




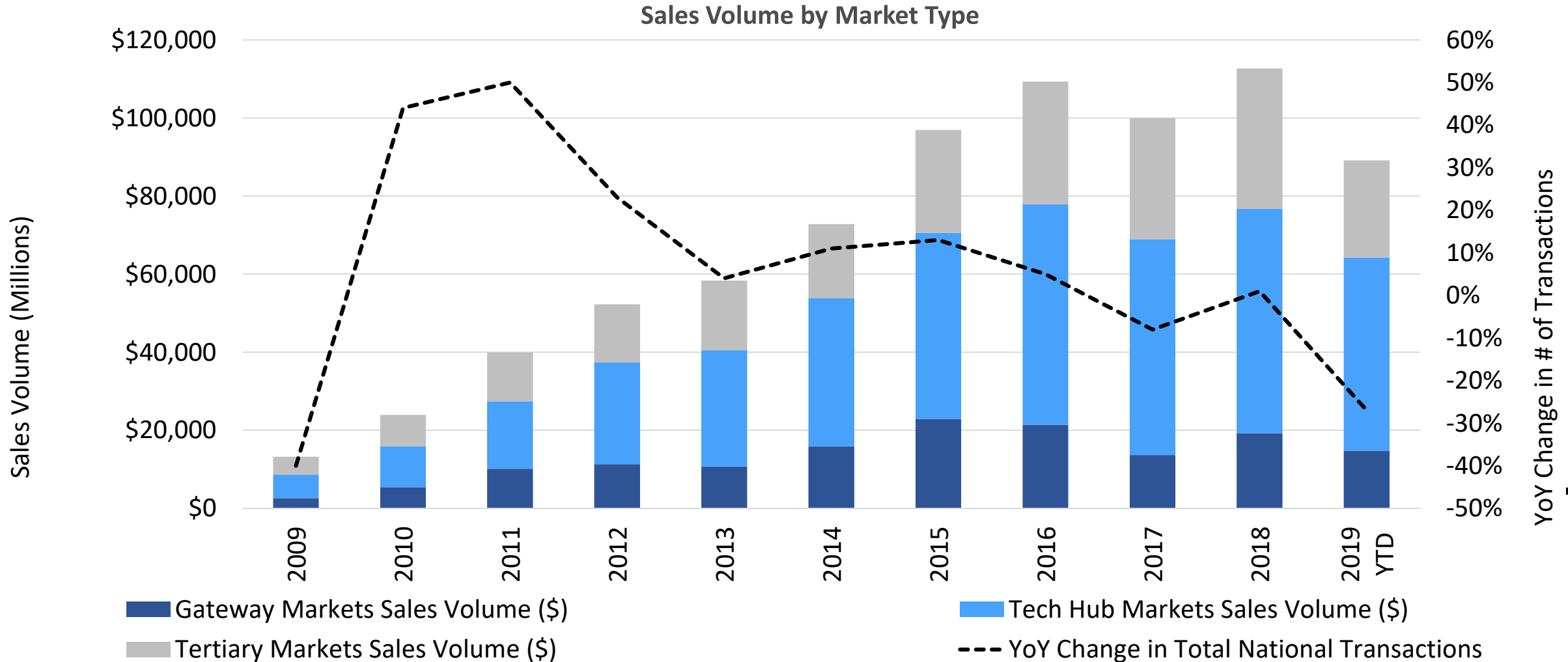
National Multifamily Values Keep Rising



Sales Price Per Units Index 2008 = 100

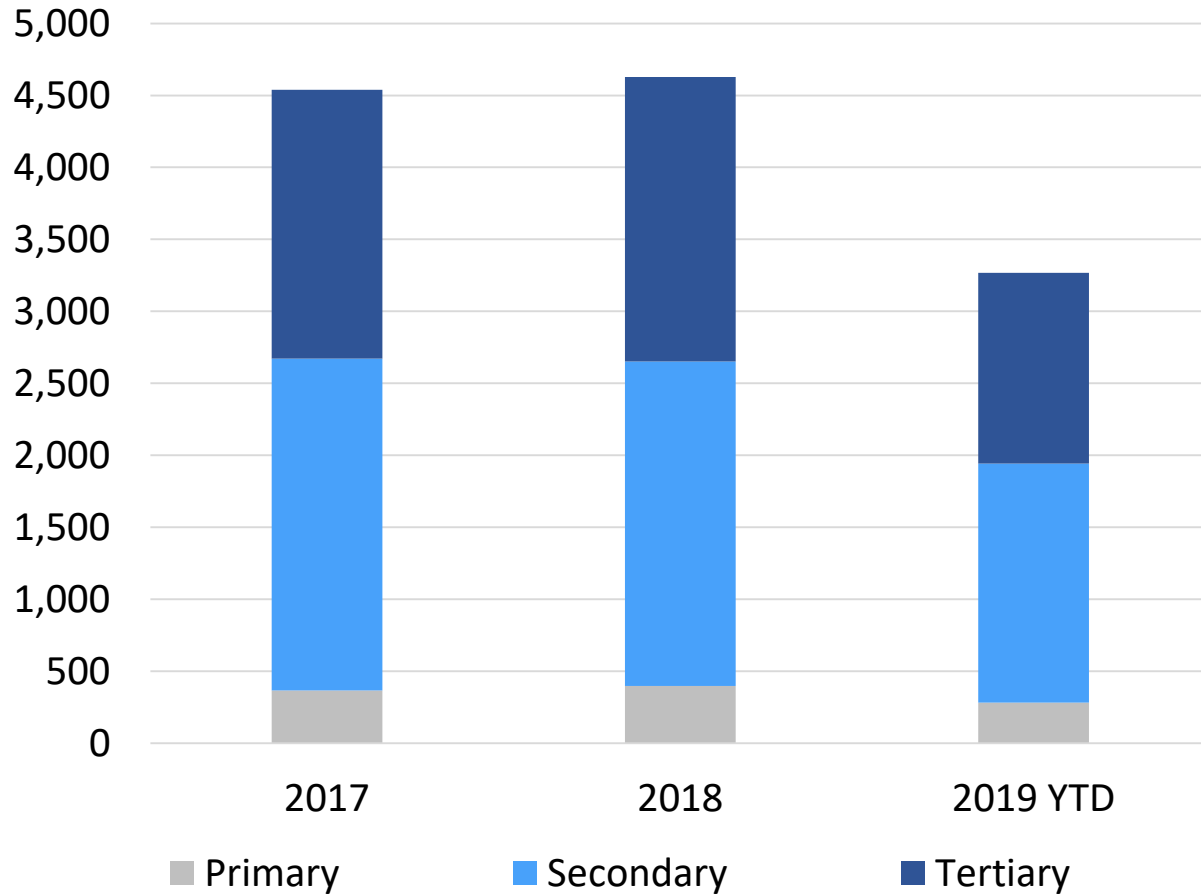


Multifamily Transactions Fairly Stable Over Past Five Years, but With Higher Dollar Amounts

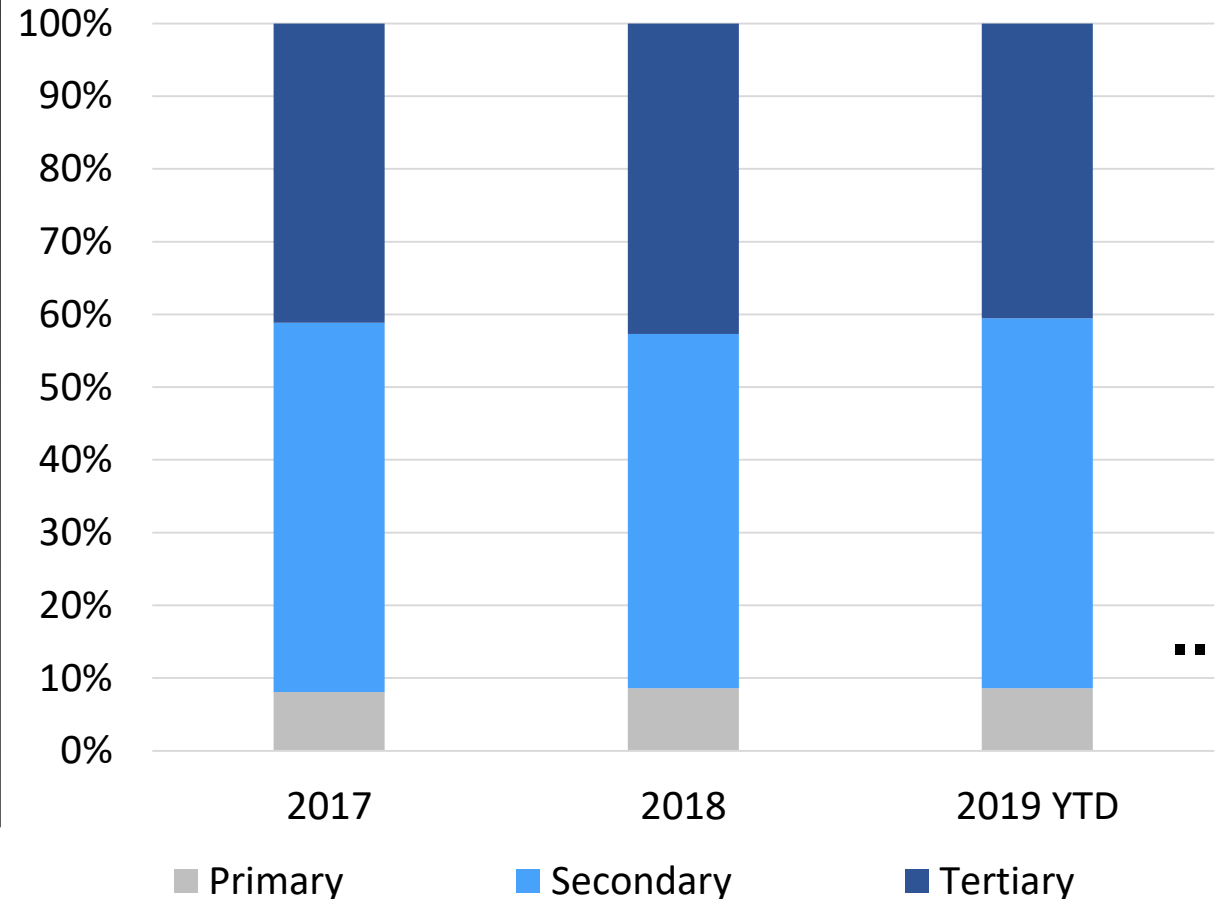


Multifamily Sales Are Concentrated in Tech Hub & Tertiary Markets

Properties Sold by Market Type

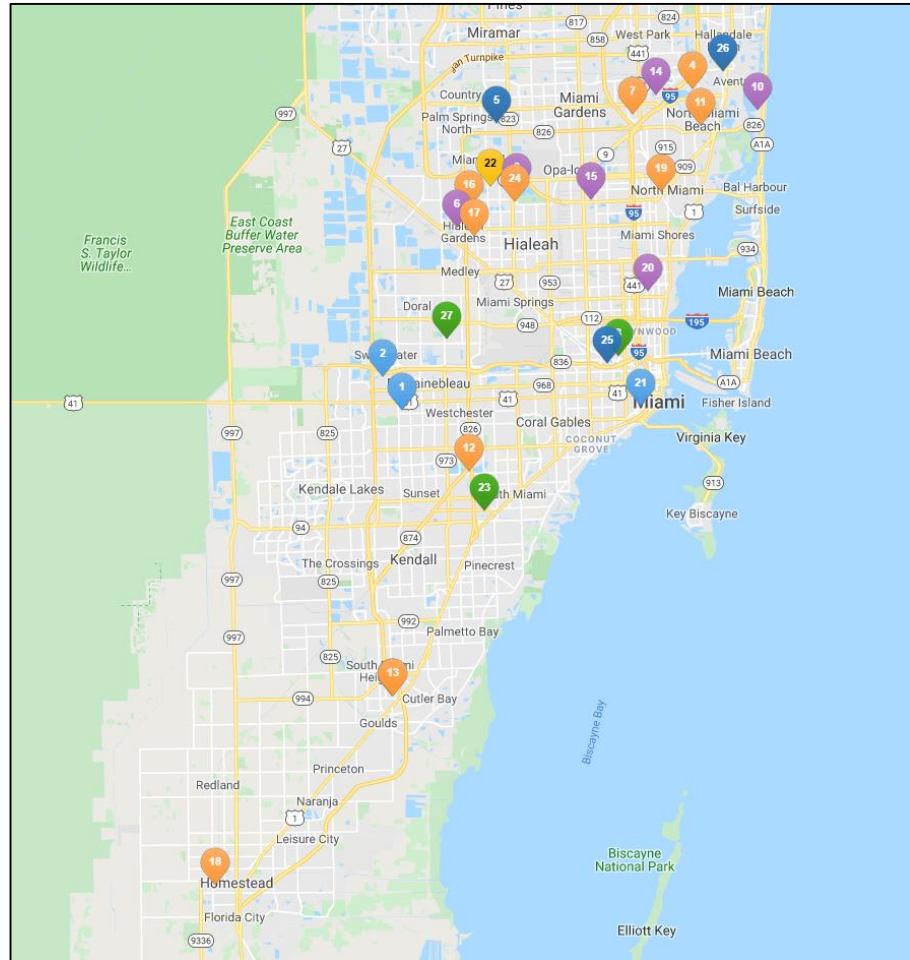


% of Properties Sold by Market Type





Miami Multifamily Transaction Composition in 2018



Property Asset Class:

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

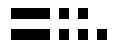


2018 Transactions

	#	% of Stock
Properties Sold	27	3.8%
Units Sold	5,048	4.2%

2018 Sales Prices

Avg. Sales Price per Unit	\$186,248
Avg. Sales Price per Unit for Low Mid-Range Assets	\$199,099
1-Year Sales Price Growth for Low Mid-Range Assets	34.2%
5-Year Sales Price Growth for Low Mid-Range Assets	89.8%

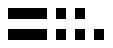


Population Growth Is in Non-Gateway Markets



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
Indianapolis	1.0%	1.1%	1.1%	Steady

Market	2016 Pop. Growth	2017 Pop. Growth	2018 Pop. Growth	Overall Trend
Sacramento	1.3%	1.2%	1.1%	Decelerating
Minneapolis	1.0%	1.1%	1.0%	Decelerating
Portland	1.9%	1.2%	0.9%	Decelerating
Washington DC	0.9%	1.0%	0.8%	Decelerating
Kansas City	1.0%	0.9%	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%	Accelerating
San Jose	0.7%	0.2%	0.3%	Accelerating
Detroit	0.1%	0.1%	0.1%	Steady
Cleveland	-0.1%	-0.1%	-0.1%	Steady/Negative
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

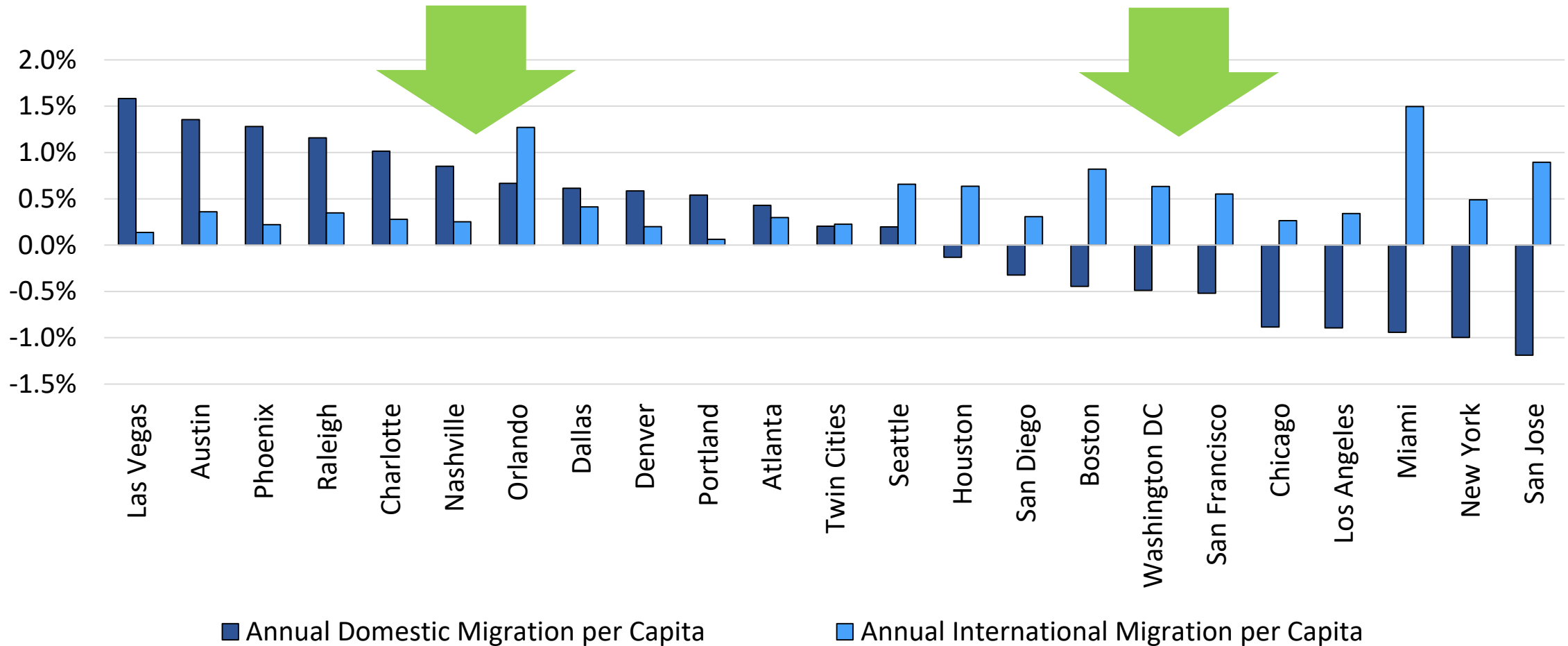


Immigration Is Key to Gateway Population Growth



Tech Hub Markets:
High Migration, Modest Immigration

Gateway Markets:
High Immigration, Low/Negative Migration



Tech Hub & Tertiary Markets Will Have Most Multifamily Rent Growth Over Next Couple Years

Market	2020 Forecast	2021 Forecast	2022 Forecast
Portland ME	5.9%	5.9%	5.5%
Spokane	5.9%	4.4%	3.7%
Huntsville	5.8%	5.1%	5.1%
Central Valley	5.8%	5.4%	5.5%
Seattle	5.8%	4.8%	3.9%
Pensacola	5.8%	6.8%	5.6%
Dayton	5.5%	4.3%	3.3%
Las Vegas	5.4%	5.0%	4.8%
Orlando	5.4%	4.9%	5.0%
Jacksonville	5.2%	4.5%	4.6%

Market	2020 Forecast	2021 Forecast	2022 Forecast
Portland	5.2%	4.2%	3.0%
Reno	5.0%	3.6%	2.8%
Eugene	4.9%	4.8%	4.6%
Central Coast	4.6%	4.6%	4.2%
North Central Florida	4.4%	4.2%	4.0%
Tri-Cities	4.4%	3.7%	3.4%
Colorado Springs	4.4%	4.7%	4.3%
Columbia	4.3%	4.7%	4.2%
Worcester-Springfield	4.2%	3.1%	3.1%
Boise	4.2%	3.9%	3.8%

*Full market forecast on 133 markets and submarkets available for clients

*Data ranked by 2020 forecast values

Source: Yardi® Matrix



Tertiary Markets Will Have Least Multifamily Rent Growth Over Next Couple Years



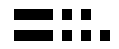
Market	2020 Forecast	2021 Forecast	2022 Forecast
Midland-Odessa	-5.9%	-3.2%	3.8%
Corpus Christi	0.2%	-0.3%	0.2%
Central East Texas	0.3%	0.3%	0.3%
Amarillo	0.4%	0.8%	1.3%
Tulsa	0.6%	1.3%	1.6%
Washington DC	0.8%	-0.1%	1.4%
Little Rock	0.8%	1.1%	1.1%
Anchorage	0.9%	0.8%	0.7%
Baltimore	1.0%	1.5%	1.5%
Raleigh-Durham	1.1%	2.3%	2.8%

Market	2020 Forecast	2021 Forecast	2022 Forecast
Northern Virginia	1.1%	2.2%	2.2%
Charlotte	1.2%	2.6%	2.7%
Lafayette-Lake Charles	1.2%	1.4%	1.4%
New Orleans	1.3%	2.7%	2.3%
Des Moines	1.4%	1.8%	1.7%
Sacramento	1.4%	1.6%	2.2%
Madison	1.5%	2.4%	2.1%
El Paso	1.5%	2.0%	1.5%
Buffalo	1.5%	1.4%	2.2%
Omaha	1.6%	2.2%	2.1%

*Full market forecast on 133 markets and submarkets available for clients

*Data ranked by 2020 forecast values

Source: Yardi® Matrix

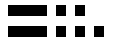


Matrix Expert Multifamily Operating Data Per Unit



12-month period Ending October 2019	Miami	Atlanta	Austin	Boston	Chicago	Denver	Los Angeles	Manhattan
Total Income	\$19,925	\$15,798	\$15,247	\$25,342	\$23,091	\$18,039	\$28,107	\$36,675
Total Operating Expense	\$8,319	\$7,181	\$7,640	\$10,358	\$10,664	\$6,298	\$10,935	\$17,536
Net Operating Income	\$11,605	\$8,617	\$7,606	\$14,985	\$12,427	\$11,741	\$17,172	\$19,139
Operating Margin	58.2%	54.5%	49.9%	59.1%	53.8%	65.1%	61.1%	52.2%
Cap Rate (October 2019)	5.5%	7.3%	5.3%	5.0%	4.6%	4.8%	4.1%	2.8%





SUMMARY



1

Demand is strong, but there are constraints on supply due to construction delays & financing

2

Rent growth continues to hum along, with lower asset classes outperforming

3

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

4

Rent growth will continue to grow the most in tech hub & tertiary markets with the support of strong population & employment fundamentals

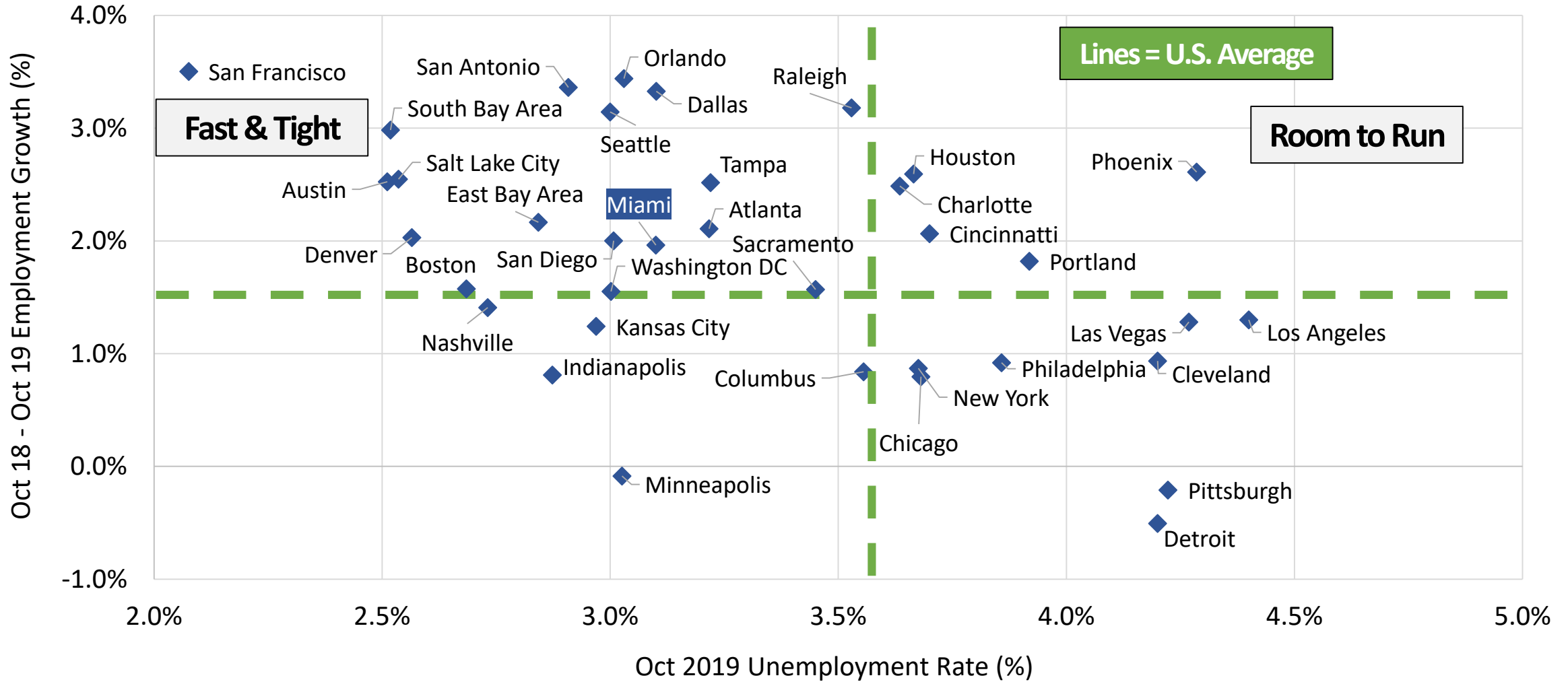


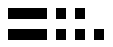


OFFICE FUNDAMENTALS



Tech Hub Markets Have Most Dynamic Job Growth

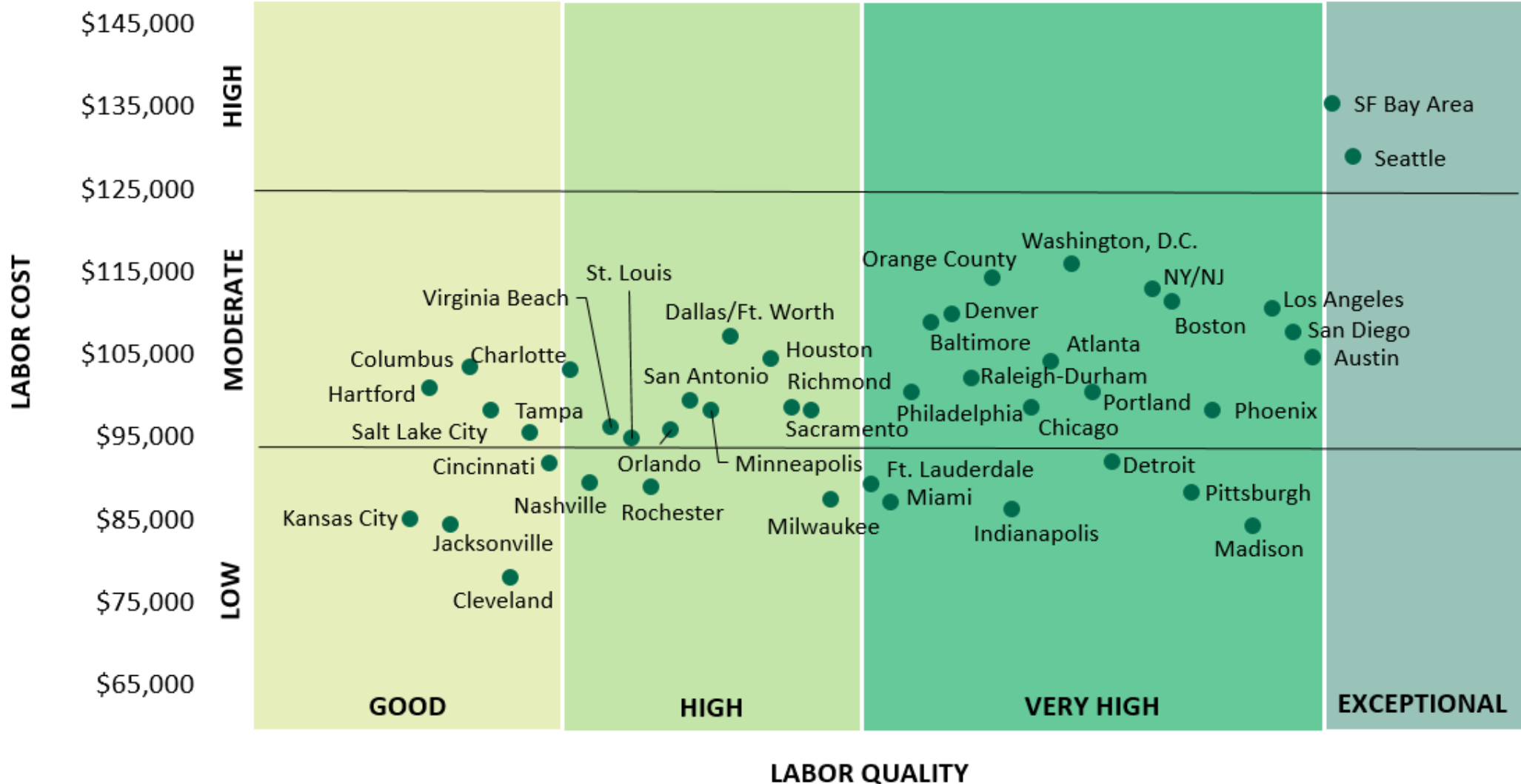


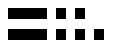


Tech Talent Quality vs. Cost Analysis



Average Annual Salary for Software Engineer (USD)

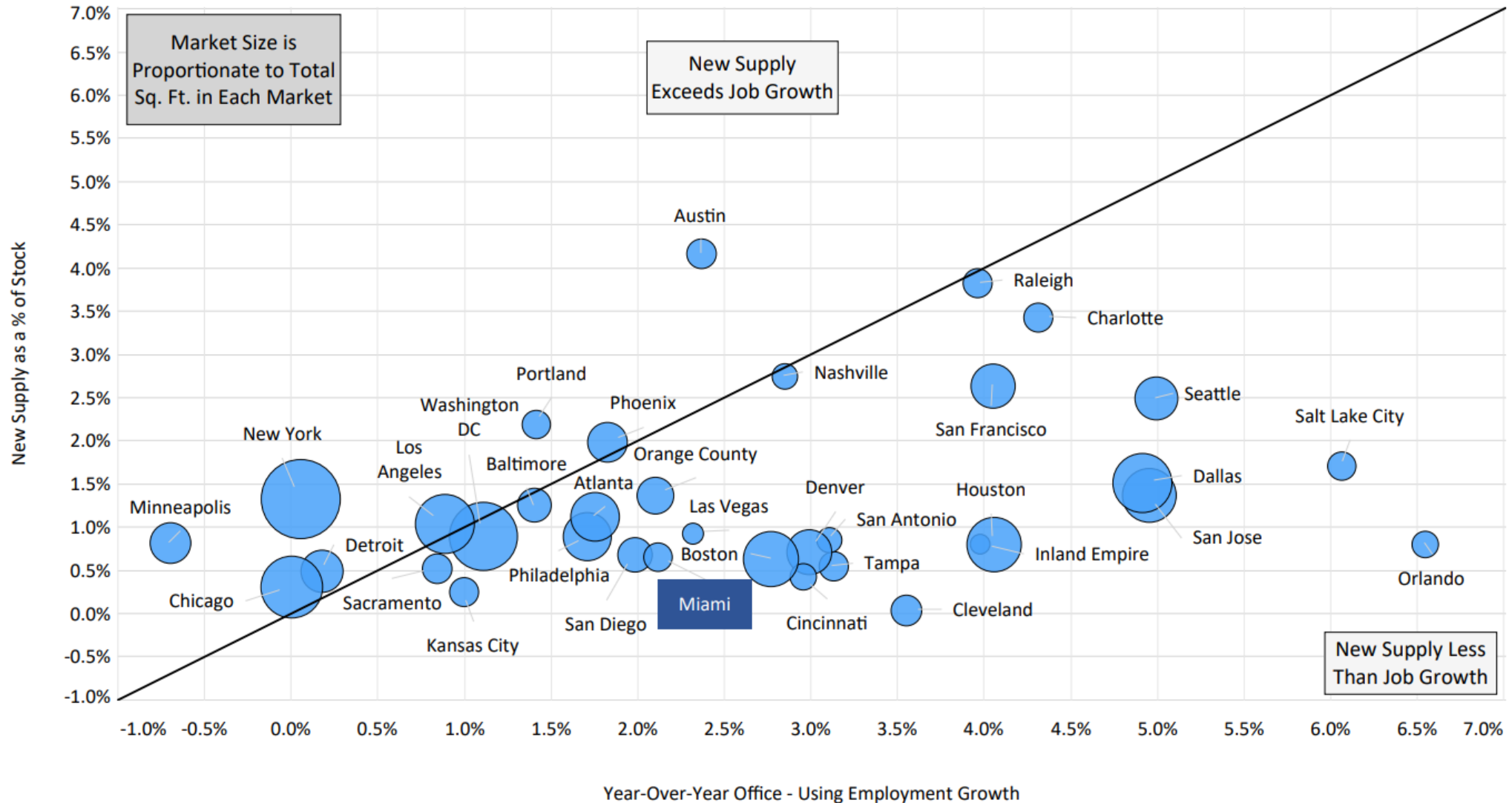




Most Markets Are Absorbing Office Space



Employment and Supply Growth: September 2018 - September 2019



Office Fundamentals Improving in Tech Hub Markets

Top 10 Markets					
Market	12-Month Change in Full-Service Equivalent Asking Rents	12-Month Change in Vacancy Rate	November Full-Service Equivalent Asking Rent	November Vacancy Rate	New Supply as a % of Stock Last 12 months
San Francisco	18.1%	-1.3%	\$71.0	7.7%	2.5%
Brooklyn	15.2%	3.4%	\$59.8	12.1%	8.1%
West Palm Beach	13.9%	0.6%	\$35.5	12.3%	0.7%
Manhattan	10.9%	-2.2%	\$85.0	7.7%	1.2%
Miami	10.8%	-2.0%	\$42.4	11.1%	0.8%
Bay Area	10.3%	-0.1%	\$48.1	14.0%	2.1%
Tampa	7.8%	0.1%	\$29.8	11.4%	0.9%
Fort Lauderdale	6.6%	-0.8%	\$30.4	11.7%	0.9%
Austin	4.6%	-2.8%	\$40.3	8.3%	3.6%
Atlanta	3.8%	0.3%	\$26.9	16.4%	1.3%

*As of November 2019

*Listings with high full-service equivalent rents that have been added over the last year in San Francisco, Tampa, Brooklyn, Bay Area and Manhattan are contributing to large YoY rent changes

Source: Yardi® Matrix

Office Fundamentals Improving in Tech Hub Markets

Bottom 10 Markets

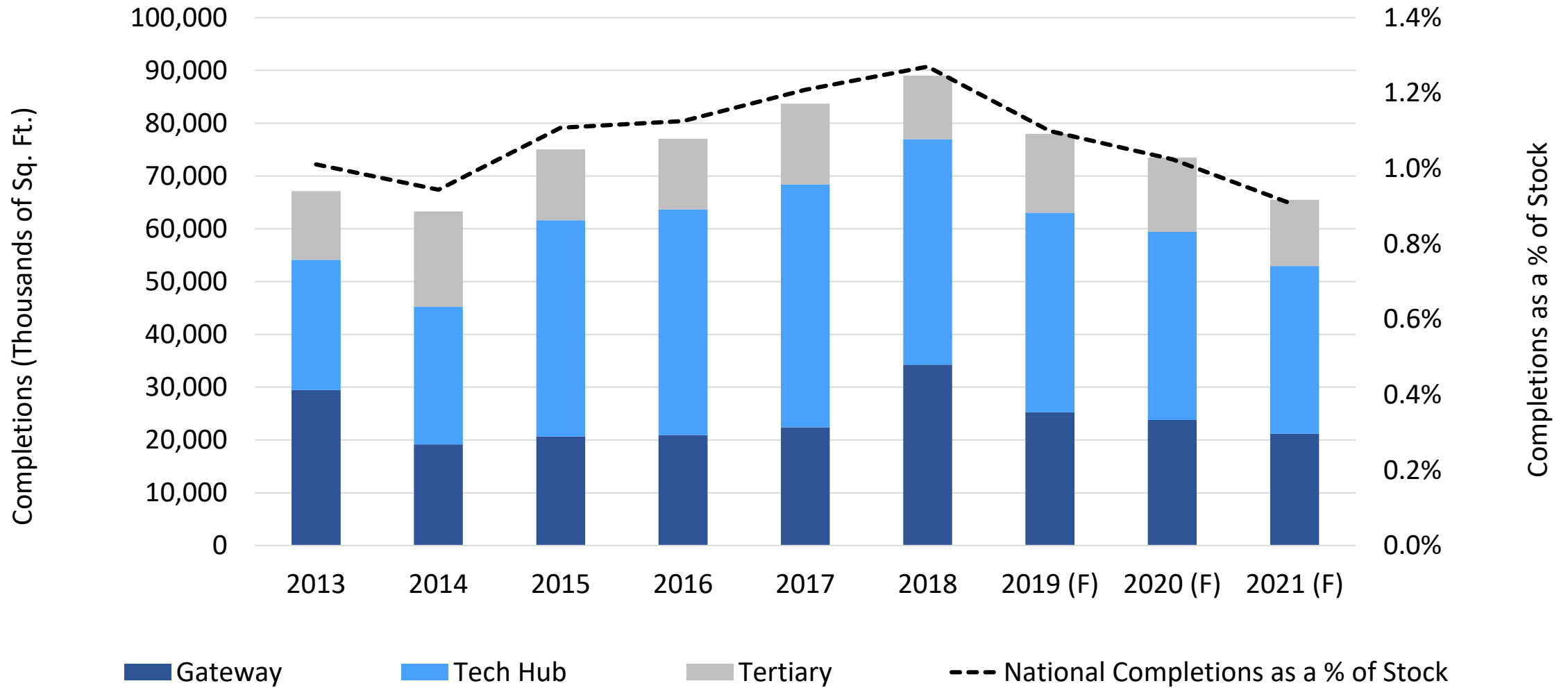
Market	12-Month Change in Full-Service Equivalent Asking Rents	12-Month Change in Vacancy Rate	November Full-Service Equivalent Asking Rent	November Vacancy Rate	New Supply as a % of Stock Last 12 months
Boston	-8.6%	0.6%	\$34.8	10.2%	0.8%
Chicago	-6.4%	1.1%	\$28.2	15.0%	0.4%
Central Valley	-4.5%	2.5%	\$24.0	10.0%	0.6%
Salt Lake City	-3.0%	2.7%	\$23.7	11.8%	1.6%
Seattle	-2.3%	-0.9%	\$37.4	8.1%	2.9%
New Jersey	-2.2%	0.3%	\$31.2	20.8%	0.2%
Orlando	-2.1%	0.8%	\$21.2	12.4%	0.4%
Cincinnati	-1.5%	-0.4%	\$17.6	19.5%	0.4%
Cleveland-Akron	-1.4%	3.8%	\$20.1	17.3%	0.0%
Southwest Florida Coast	-1.2%	1.9%	\$24.5	10.8%	0.6%

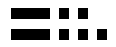
*As of November 2019

*Listings with high full-service equivalent rents that have been removed over the last year in Boston, Chicago, Seattle and Orlando are contributing to large YoY asking rent changes

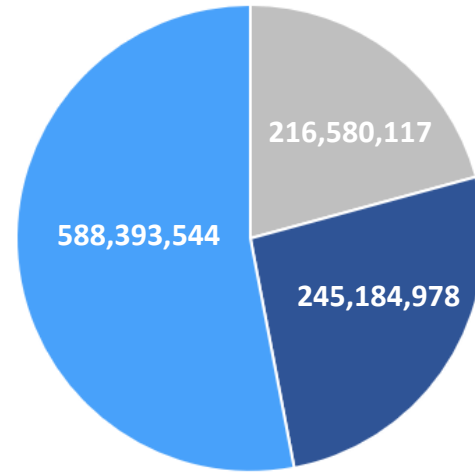
Source: Yardi® Matrix

Office Supply Additions Peaked in 2018





Where Is Future Office Supply Concentrated?



■ Under Construction Sq. Ft.

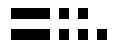
■ Planned Sq. Ft.

■ Prospective Sq. Ft.

Top 10 Markets	Sq. Ft. UC (MM)	UC as a % of Existing Stock
Queens	3.0	13.9%
Austin	10.4	13.0%
Brooklyn	4.3	11.5%
Nashville	5.0	8.5%
Seattle	10.7	6.4%
Charlotte	4.8	6.3%
San Francisco	10.7	6.1%
Allentown-Bethlehem	1.1	5.9%
El Paso	0.4	5.7%
Buffalo	1.4	5.5%

Top 10 Markets	Sq. Ft. Planned (MM)	Planned as a % of Existing Stock
Austin	14.2	17.7%
Wilmington	0.3	7.9%
Seattle	12.6	7.6%
Brooklyn	2.7	7.3%
Dallas-Fort Worth	22.7	7.3%
Nashville	4.2	7.2%
Mobile	0.5	7.2%
Fort Wayne	0.6	6.7%
Bay Area	17.2	6.6%
Long Island	3.6	6.6%

Top 10 Markets	Sq. Ft. Prospective (MM)	Prospective as a % of Existing Stock
Nashville	15.1	25.7%
Bay Area	50.9	19.6%
Austin	15.7	19.6%
Jacksonville	7.0	16.8%
Brooklyn	6.2	16.6%
Atlanta	31.3	14.9%
Washington DC	59.0	14.4%
West Palm Beach	5.0	13.7%
San Francisco	23.9	13.6%
Miami	9.7	13.5%

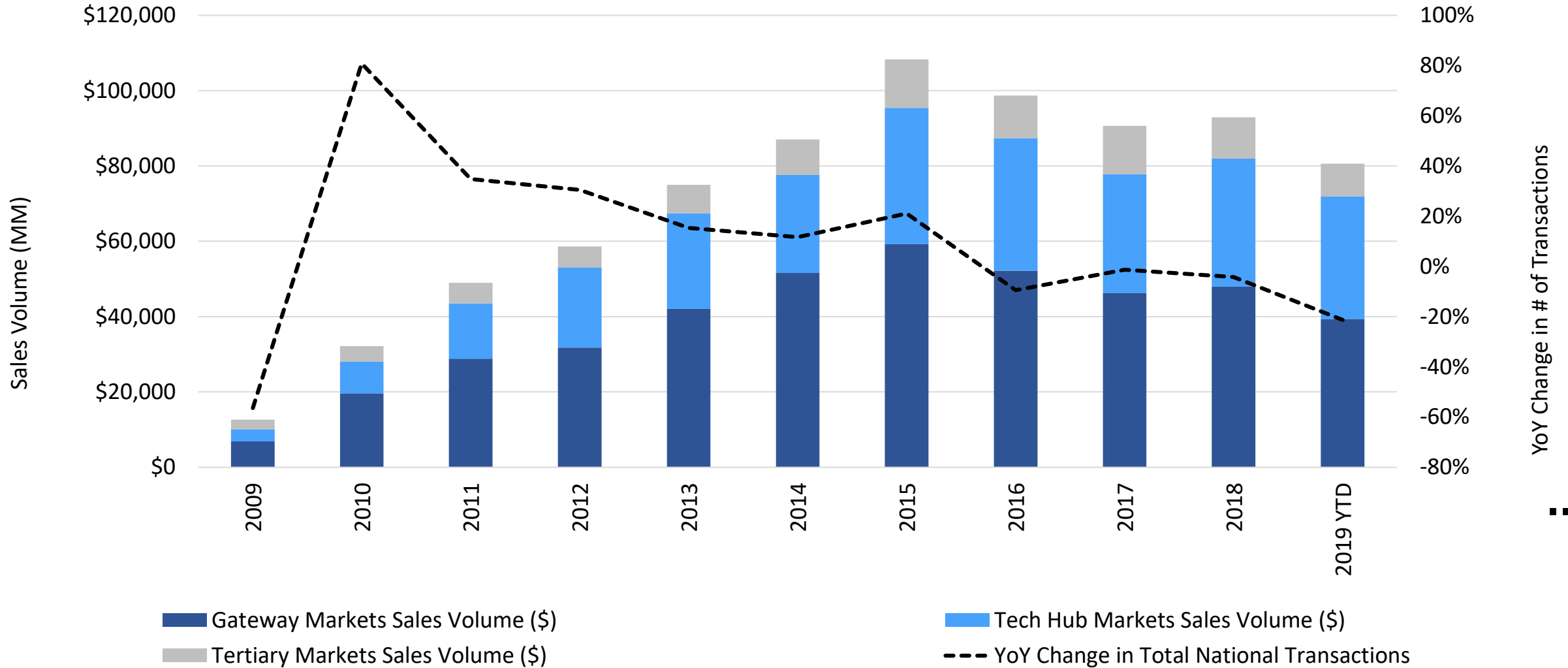


Top 20 Largest Office Projects Under Construction



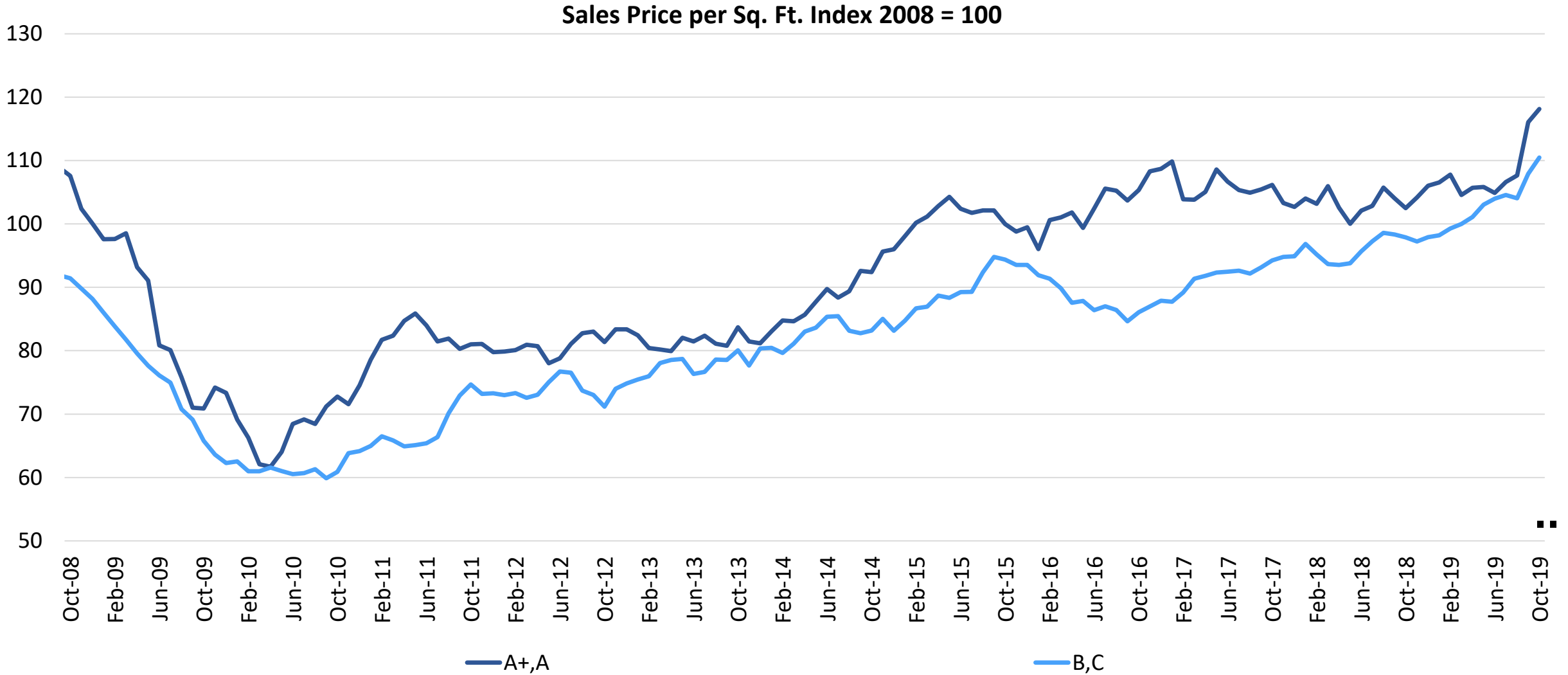
Property Name	Market	Square Footage
50 Hudson Yards	Manhattan	2,900,000
The Spiral	Manhattan	2,800,000
The Post Office	Chicago	2,800,000
Apple West Parmer Lane Campus	Austin	2,000,000
Two Manhattan West	Manhattan	1,840,000
One Vanderbilt	Manhattan	1,755,814
Winthrop Center	Boston	1,612,400
110 North Wacker	Chicago	1,565,909
3 Hudson Blvd	Manhattan	1,538,210
First Street Tower of Oceanwide Center	San Francisco	1,491,019
Seneca One Tower	Buffalo	1,348,964
Google Hudson Square - 550 Washington Street	Manhattan	1,300,000
California Market Center	Los Angeles	1,296,360
The Dayton's Project	Minneapolis - St. Paul	1,200,000
The Jacx	Queens	1,200,000
State Farm at Park Center - Phase II	Atlanta	1,160,000
Texas Tower	Houston	1,155,000
The David H. Koch Center for Cancer Care	Manhattan	1,153,000
Charlotte Metro Tower	Charlotte	1,025,000
Block 216 Tower	Portland	1,022,200

Expect 2019 Office Sale Volume to Be in Line With the Past Two Years

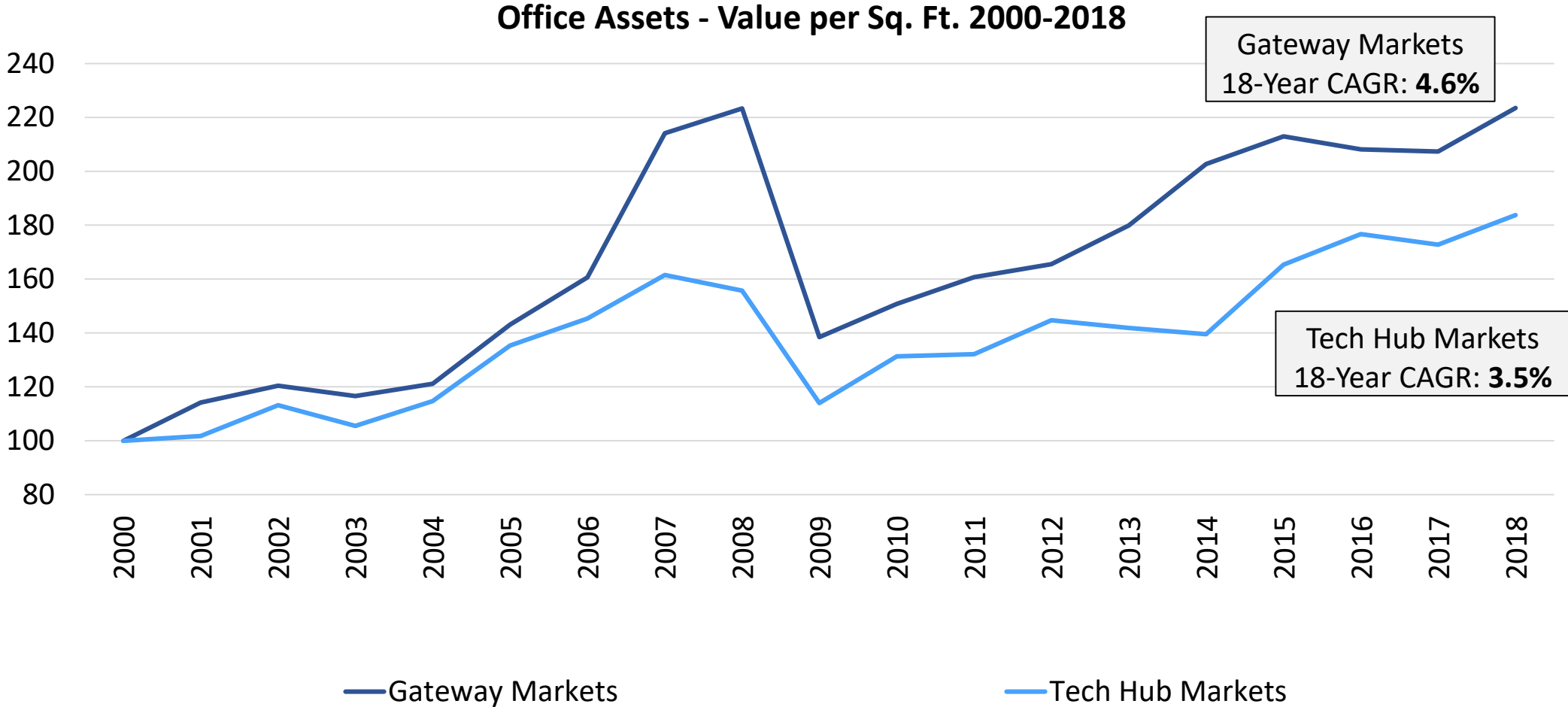




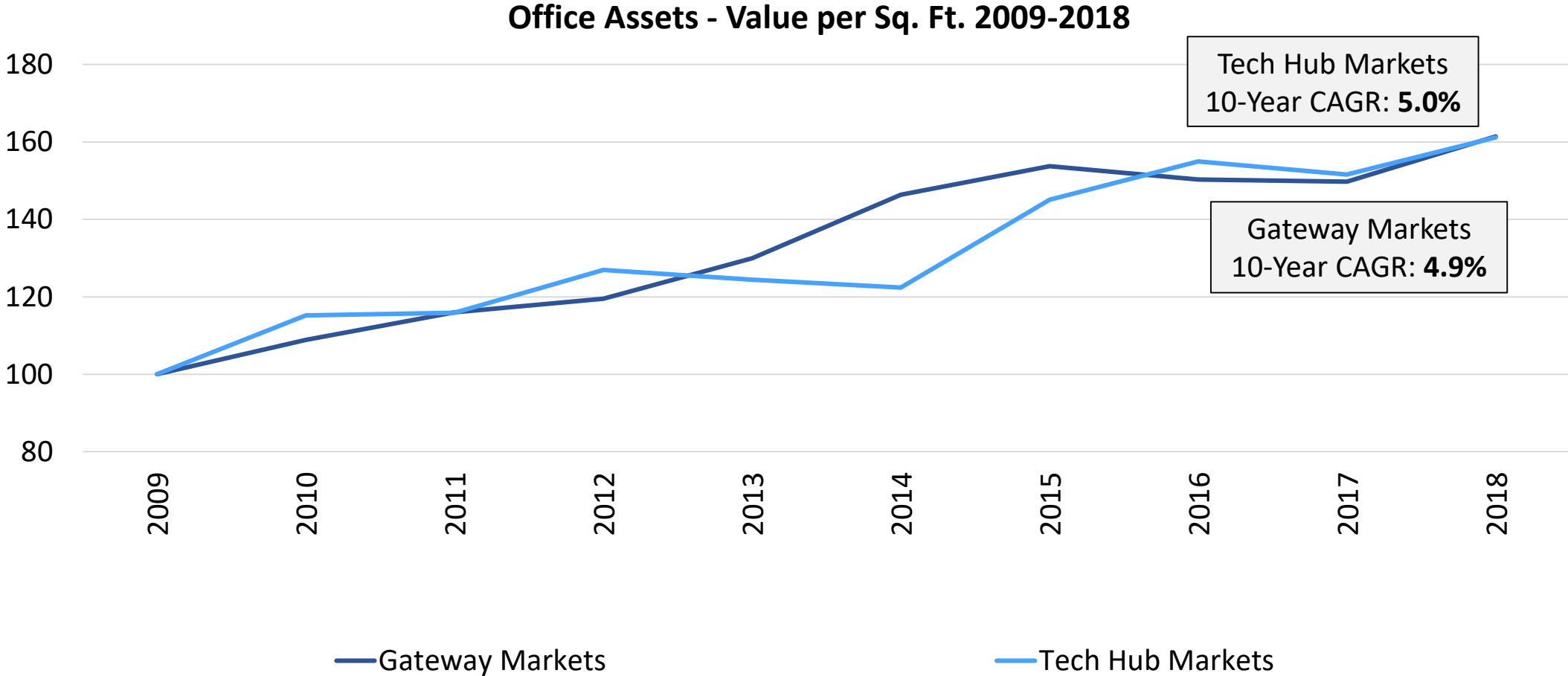
Since the Recession, Class A Has Outperformed B/C

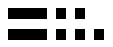


Office Assets in Gateway Markets Have Outperformed Since 2000, But...

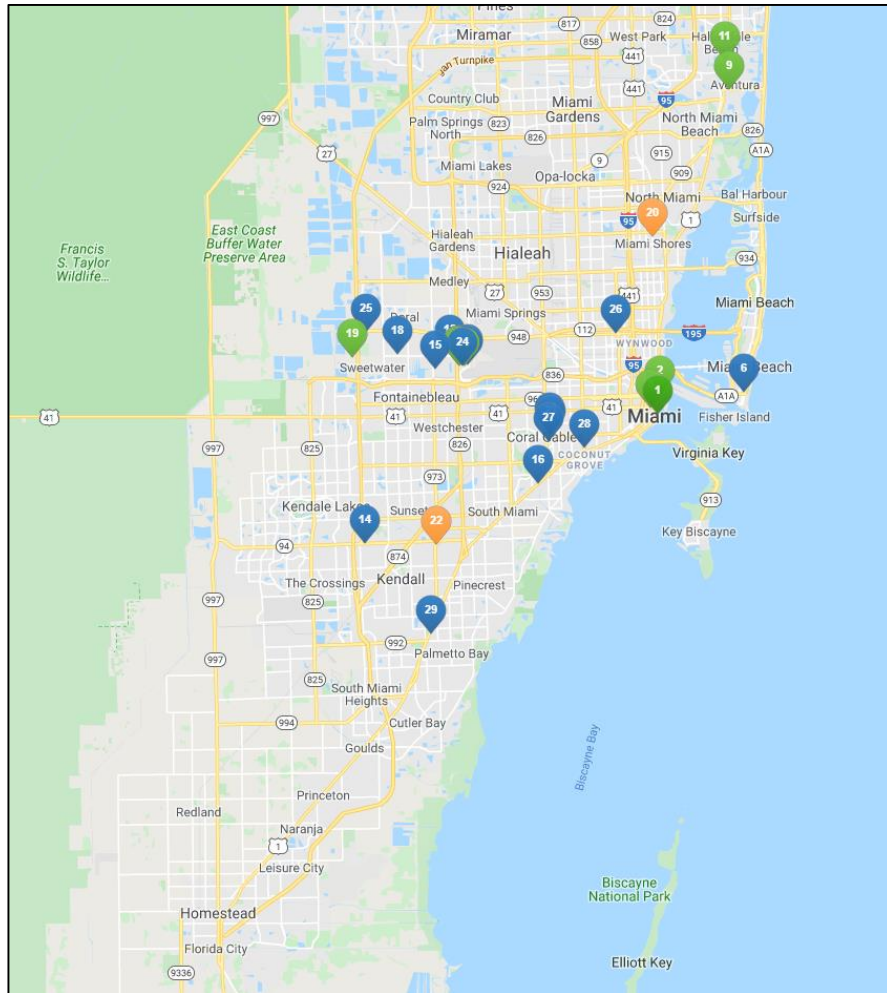


Office Assets in Tech Hub Markets Have Performed in Line With Gateway Markets Since 2009





Miami Office Transaction Composition in 2018



Building Class: A+ A B C

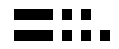
Legend: A+ (Green), A (Light Green), B (Blue), C (Orange)

2018 Transactions

	#	% of Stock
Properties Sold	31	4.5%
Sq. Ft. Sold	3,724,590	5.2%

2018 Sales Prices

Avg. Sales Price per Sq. Ft.	\$368.07
Avg. Sales Price per Sq. Ft. for Class A+/A Assets	\$407.13
1-Year Sales Price per Sq. Ft. Growth for Class A+/A Assets	-38.6%
5-Year Sales Price per Sq. Ft. Growth for Class A+/A Assets	27.9%



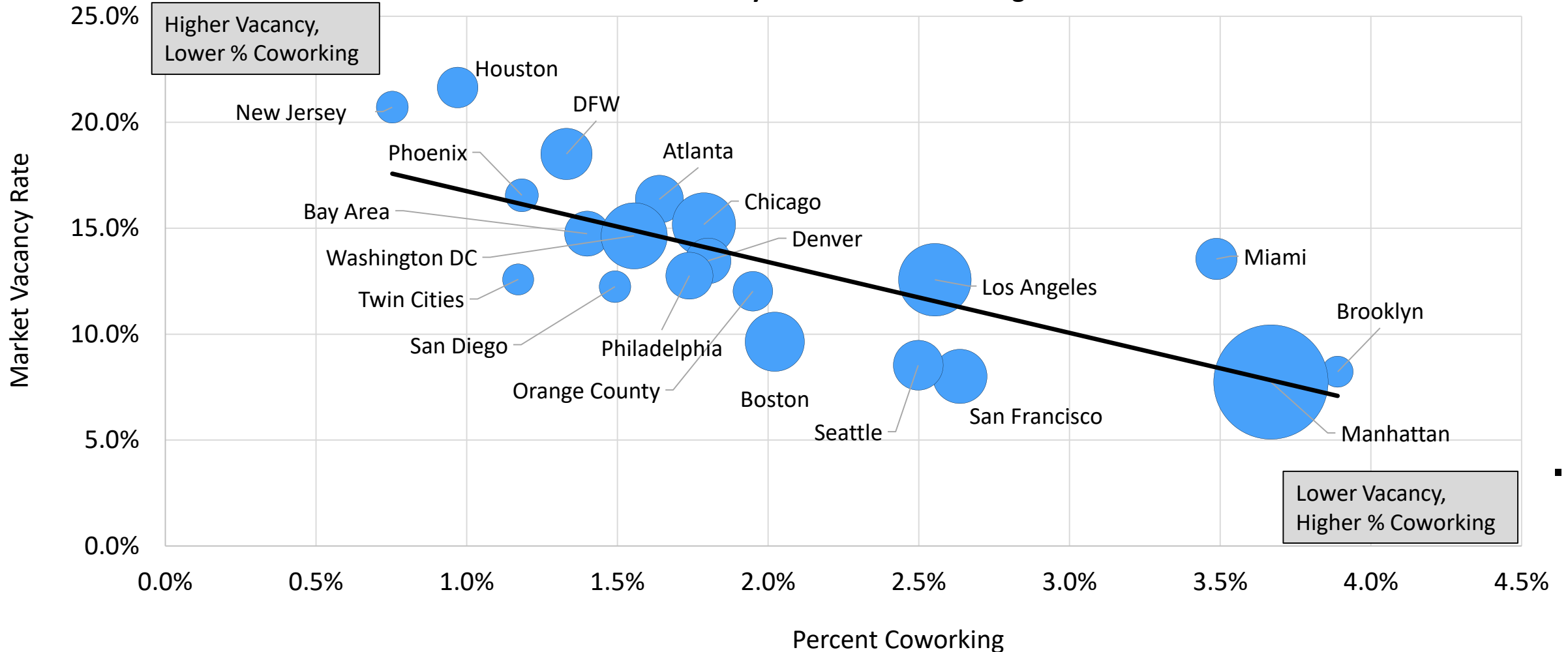
Secular Pressures Continue to Alter the Office Market

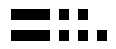


- Coworking
 - Pulls roughly 1-3% of market demand from traditional office leases
 - More highly concentrated in dense, high-cost gateway markets
 - More players have entered the market: CBRE, JLL, Tishman, Savills
- Decreasing square foot per employee
 - Specifically in CBD and high-cost metros
- Talent 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, and most markets still have a lot of space to absorb ..
- Technological advancements are coming that will change the way we invest in and manage office properties

Markets With Lower Vacancy Rates Have Higher Proportion of Coworking Space

Market Vacancy vs. Percent Coworking



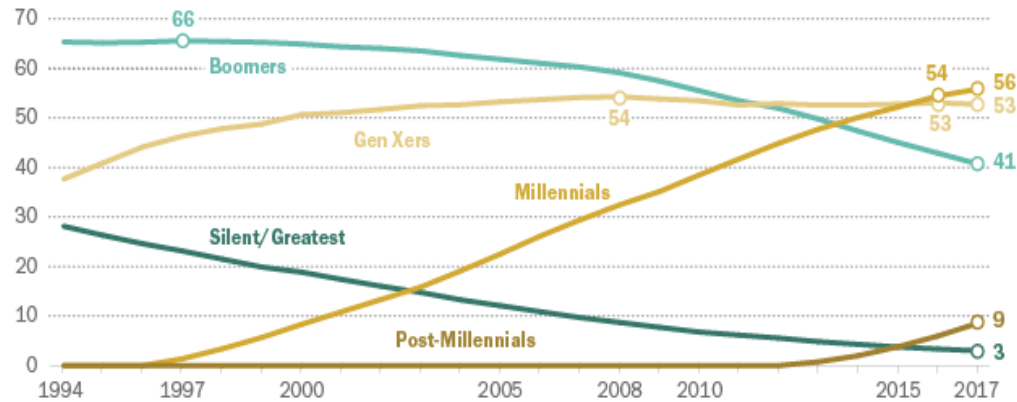


The Office Has Become an Experience Much Like Retail



Millennials became the largest generation in the labor force in 2016

U.S. labor force, in millions

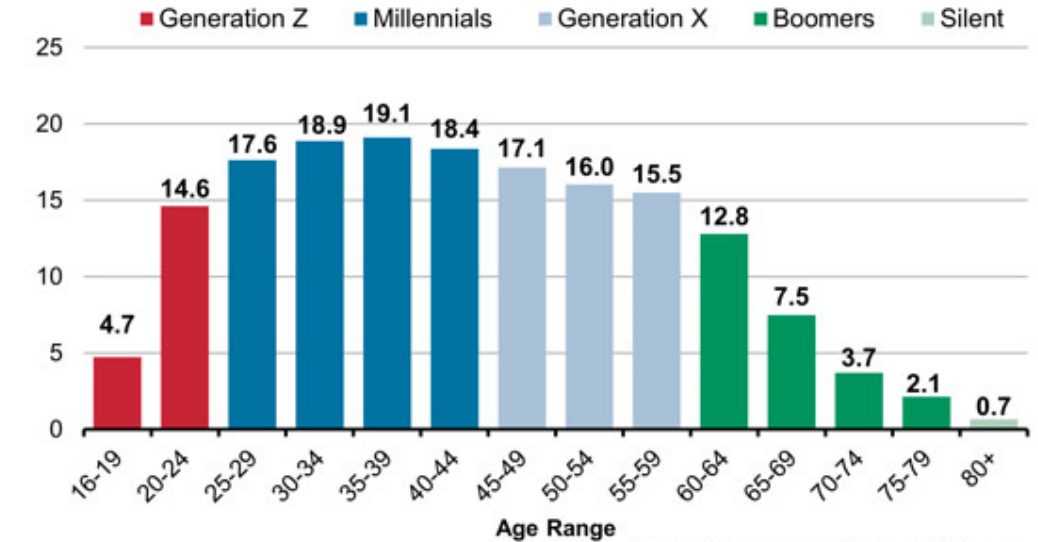


Note: Labor force includes those ages 16 and older who are working or looking for work. Annual averages shown. Source: Pew Research Center analysis of monthly 1994-2017 Current Population Survey (IPUMS).

PEW RESEARCH CENTER

The Workforce in 2025

Projected size of U.S. labor force (in millions) by age, for the year 2025



Source: Department of Labor | WSJ.com

From **Commercial Property Executive**: “Gen-Z’s Impact on Workplace Design”

- Gen-Z will comprise 30% of the workforce by 2030
- In the reception area, 100% of participants preferred a personal connection over a strictly digital one
- 86% of Gen-Z indicated that office setting would influence the acceptance of a job offer

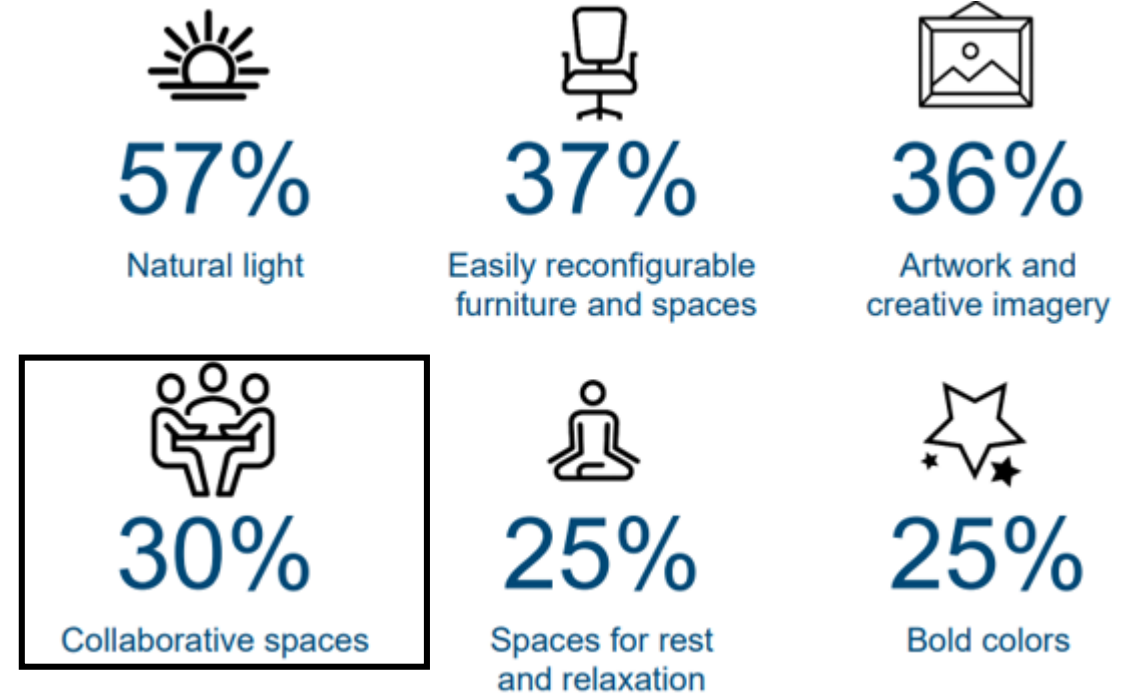
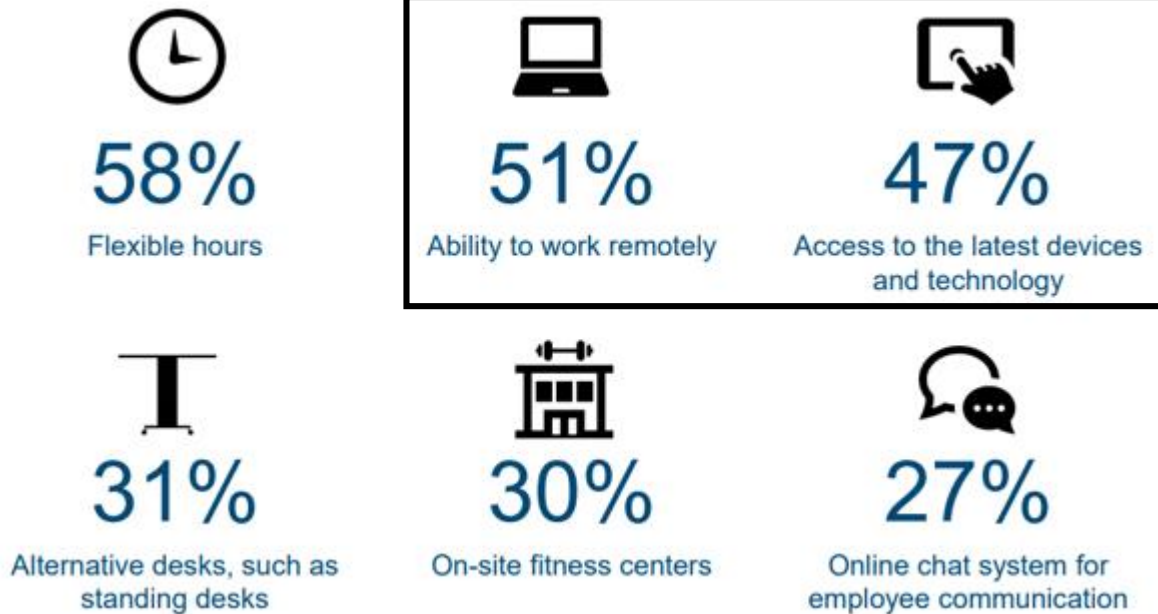


Capital One 2018 Work Environment Survey



Attracting Talent: Meeting Expectations

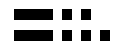
Office Design: Elements That Matter



Capital Expenditures Rising as Office Space Becomes Draw for Top Talent

MULTIFAMILY	Miami	Atlanta	Austin	Boston	Dallas	Manhattan	Phoenix	San Francisco	Washington D.C.
Net Operating Income	\$11,605	\$8,617	\$7,606	\$14,985	\$7,342	\$19,139	\$8,029	\$20,911	\$11,417
CapEx	\$1,346	\$2,115	\$1,527	\$2,100	\$1,667	\$1,900	\$1,778	\$1,466	\$1,655
CapEx as a % of NOI	11.6%	24.5%	20.1%	14.0%	22.7%	9.9%	22.2%	7.0%	14.5%

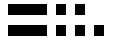
OFFICE	Miami	Atlanta	Austin	Boston	Dallas	Manhattan	Phoenix	San Francisco	Washington D.C.
Net Operating Income	\$18.25	\$13.31	\$18.80	\$21.40	\$10.92	\$31.87	\$11.86	\$36.53	\$20.51
CapEx	\$4.85	\$4.43	\$4.87	\$5.00	\$4.07	\$5.82	\$3.64	\$6.59	\$5.16
CapEx as a % of NOI	26.6%	33.3%	25.9%	23.4%	37.3%	18.3%	30.7%	18.0%	25.2%



Matrix Expert Office Operating Data Per Sq. Ft.



12-month period Ending October 2019	Miami	Atlanta	Austin	Boston	Chicago	Denver	Los Angeles	Manhattan
Total Income	\$32.15	\$22.87	\$32.50	\$37.34	\$26.21	\$24.05	\$34.45	\$61.21
Total Operating Expense	\$13.90	\$9.56	\$13.69	\$15.95	\$13.97	\$11.34	\$14.05	\$29.34
<i>Net Operating Income</i>	<i>\$18.25</i>	<i>\$13.31</i>	<i>\$18.80</i>	<i>\$21.40</i>	<i>\$12.24</i>	<i>\$12.71</i>	<i>\$20.40</i>	<i>\$31.87</i>
Operating Margin	56.8%	58.2%	57.8%	57.3%	46.7%	52.8%	59.2%	52.1%
Cap Rate (October 2019)	5.3%	7.1%	6.4%	5.9%	6.5%	5.8%	5.4%	6.3%



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 San Francisco, Brooklyn, West Palm Beach, Manhattan & Miami

3

Transactions are falling nationally, but sales prices have been increasing

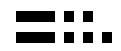
- Sales prices per sq. ft. increased the most in gateway markets since 2000, however, tech hub markets have performed in line with gateways since 2008, further indicating that the timing of investment is key





CITY SPOTLIGHT





What Helps a City Reach Its Critical Point to Succeed?



ALL EXISTING TECH MARKETS HAVE THESE CHARACTERISTICS TO SOME DEGREE

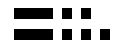
PUBLIC & PRIVATE
PARTNERSHIPS

FRIENDLY BUSINESS
ENVIRONMENT

COMMUNITY & AMENITIES THAT
RETAIN & DRAW IN TALENT

EDUCATED WORKFORCE





What's Going on in Miami?



PUBLIC & PRIVATE PARTNERSHIPS

- Two public-private partnerships between Adler Group, 13th Floor Investments & Miami-Dade County:
 - Link at Douglas: \$600 million, mixed-use transit-oriented development in Coconut Grove will include 1,400 residential units, 280K sq. ft. office space, 25K sq. ft. public plaza & 25K sq. ft. retail
 - Motion at Dadeland: 25-story building features 294 luxury apartments & 8K sq. ft. of retail space

FRIENDLY BUSINESS ENVIRONMENT

- State Rank #7
- Qualified Target Industry (QTI) Tax Refund – companies that create high-wage jobs are eligible for tax refund up to \$3,000 per new job created
- Miami-Dade County Targeted Jobs Incentive Fund (TJIF)
 - Retain existing businesses & encourage business expansions – provides up to \$3,000 per new job created and \$9,000 per job in an Enterprise Zone

COMMUNITY & AMENITIES THAT RETAIN & DRAW IN TALENT

- Miami Worldcenter
 - Will include 1,875 residential units, open-air mall with 300K sq. ft. of retail, 45-story mixed-use tower with 500K sq. ft. of Class A office space, 500K sq. ft. of exhibition & meeting space, 1,700 hotel rooms, 2 public parks
 - 27 acres & expected to be completed by 2021

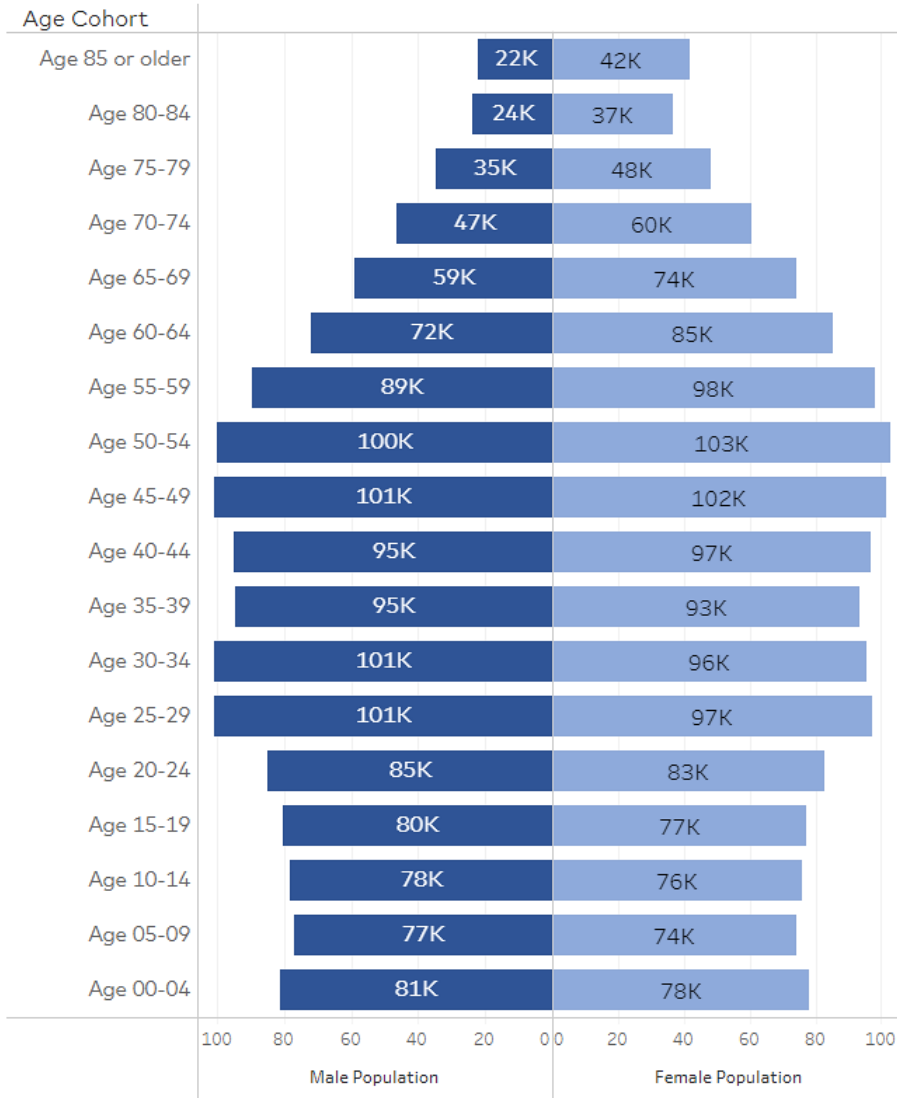
EDUCATED WORKFORCE

- 26% of adults in the City of Miami have a bachelor's degree or higher

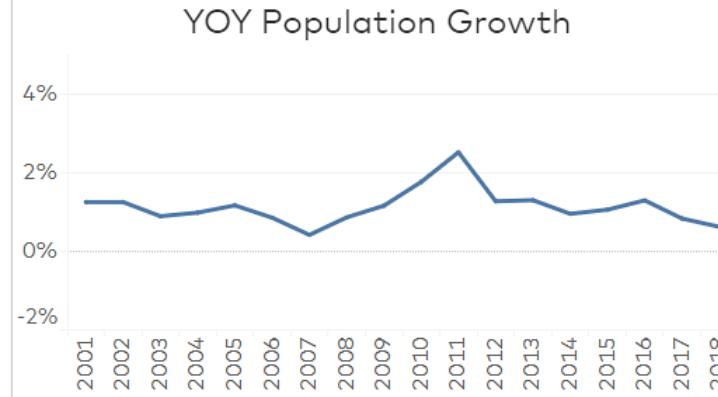
University	Approx. Enrollment 2018
University of Miami	17,331
Miami Dade College	56,001
Florida International University	56,718



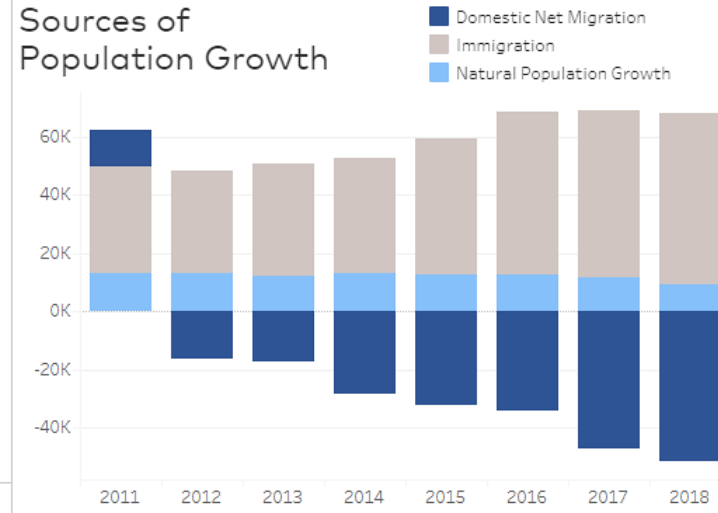
Miami Demographics Overview



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 Miami

Coming From	Count
Florida	28,005
Texas	5,702
New York	4,873
New Jersey	2,091
California	1,975
Georgia	1,242
Illinois	844
Virginia	805
North Carolina	803
Pennsylvania	760

Total Inbound Residents

54,728

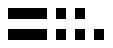
Domestic Migrants Leaving Miami

Heading to	Count
Florida	50,320
Texas	4,523
Georgia	2,882
New York	2,814
California	2,538
North Carolina	1,388
New Jersey	1,141
Colorado	817
Massachusetts	800
Illinois	769

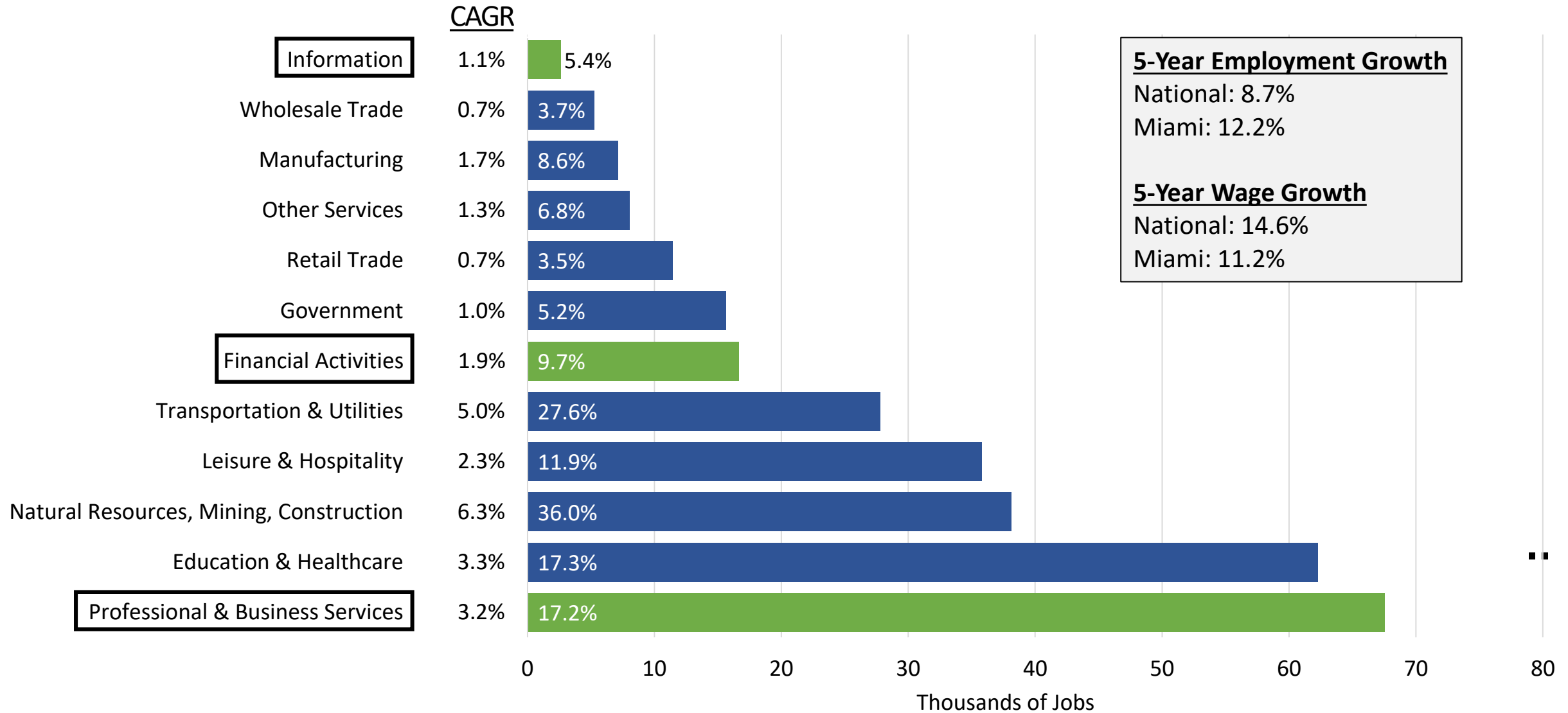
Total Outbound Residents

74,833

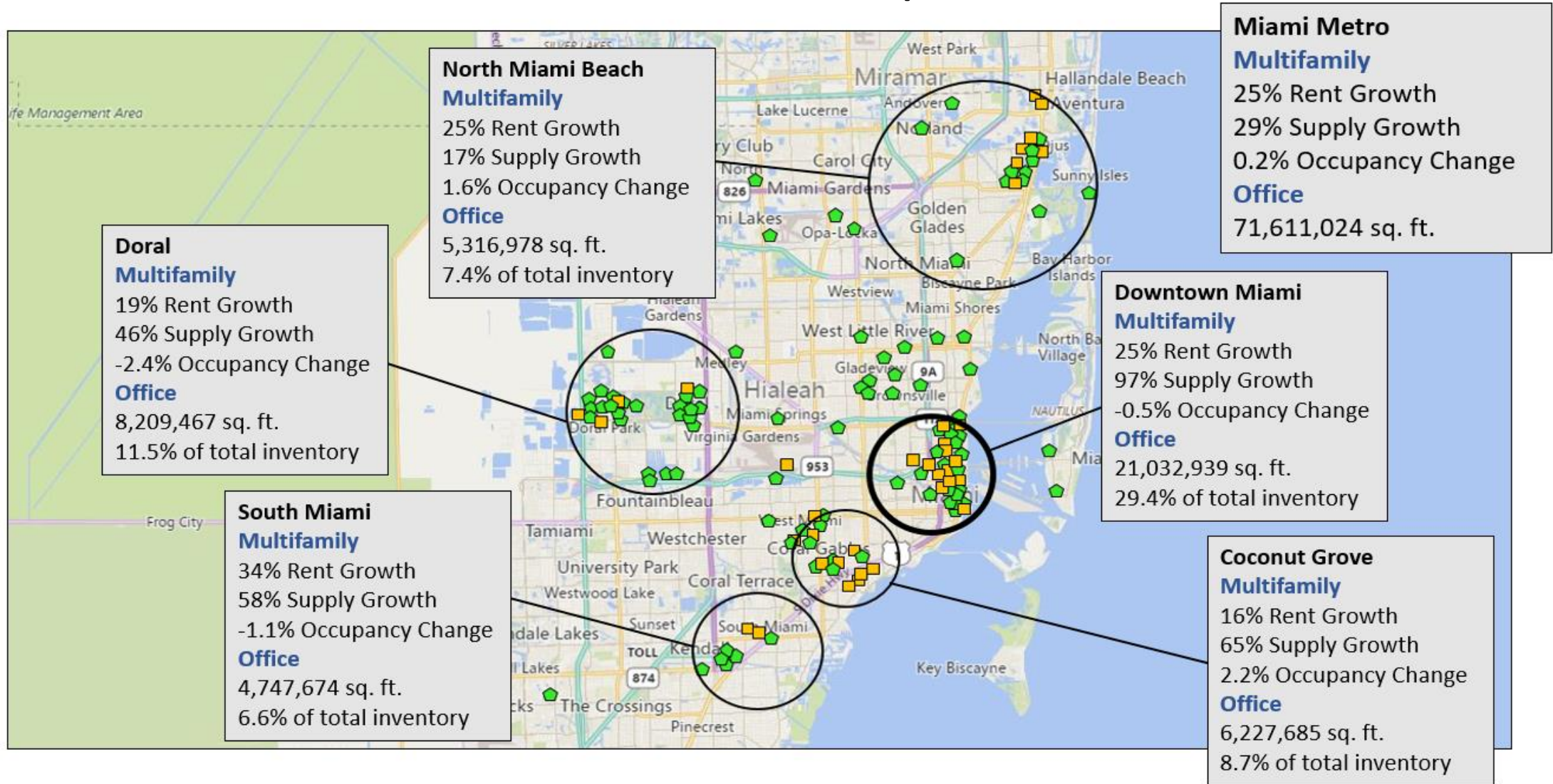
Source: IRS Statistics of Income (SOI); Moody's Analytics



Miami Employment Growth Oct 2014 – Oct 2019



Miami Intellectual Capital Nodes



■ Office Development

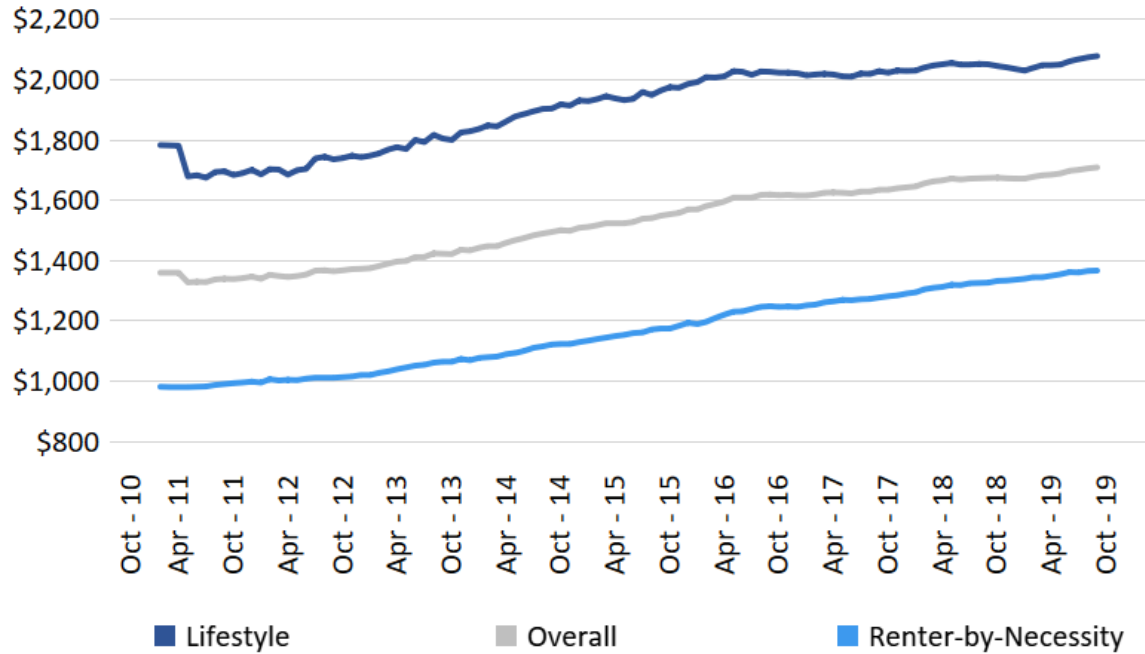
■ Multifamily Development

*Multifamily rent growth, supply growth and change in occupancy based on Oct. 2014 through Oct. 2019.
Office inventory as of Nov. 2019.

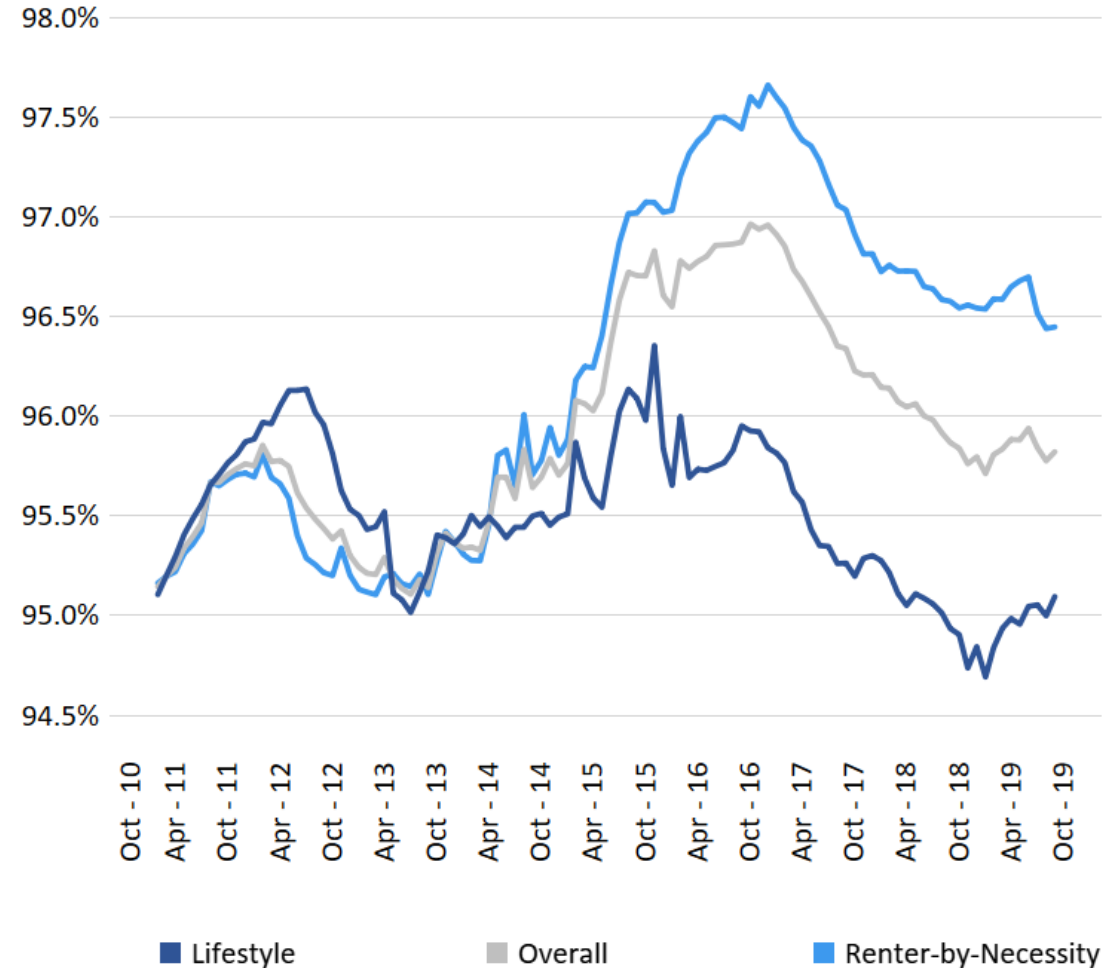
Source: Yardi® Matrix

Multifamily Rents & Occupancy: Miami

Average Rents



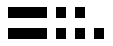
Average Occupancy



Asset Class	Rent CAGR 2011-2019	Rent Growth 2018-2019
Lifestyle	1.9%	1.3%
Renter-by-Necessity	4.2%	2.9%
Overall	2.9%	2.0%

*Rent and occupancy data March 2011 – October 2019

Source: Yardi® Matrix

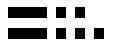


Miami Top 5 Submarkets Multifamily Rent & Occupancy Forecasts

	2018			2019 Forecast			2020 Forecast		
Submarket	Rent Growth	Avg Rent	Occupancy	Rent Growth	Rent	Occupancy	Rent Growth	Rent	Occupancy
Miami - Liberty City	4.5%	\$1,110	95.8%	10.0%	\$1,221	94.2%	2.1%	\$1,246	94.5%
Miami - Overtown	2.3%	\$1,681	97.9%	6.6%	\$1,793	98.0%	1.4%	\$1,818	98.2%
Homestead	1.8%	\$1,258	94.7%	5.9%	\$1,332	96.6%	1.6%	\$1,354	96.9%
Opa-locka	5.9%	\$1,137	96.9%	5.3%	\$1,197	96.7%	1.8%	\$1,218	96.9%
Miami - Edgewater	2.8%	\$2,080	96.5%	5.0%	\$2,184	97.5%	1.1%	\$2,207	97.7%
Miami	2.0%	\$1,673	95.8%	2.8%	\$1,711	95.7%	1.7%	\$1,740	95.9%

Miami 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+	209	36,946	3,325	114	3,439	\$43.06	\$47.27	10.4%	0.4%	10.8%
B	390	25,602	1,876	73	1,948	\$29.30	\$29.10	11.6%	0.5%	12.1%
C	99	3,863	50	0	50	\$29.71	\$29.71	4.6%	0.0%	4.6%
TOTAL	698	66,411	5,251	187	5,437	\$38.77	\$42.40	10.7%	0.4%	11.1%

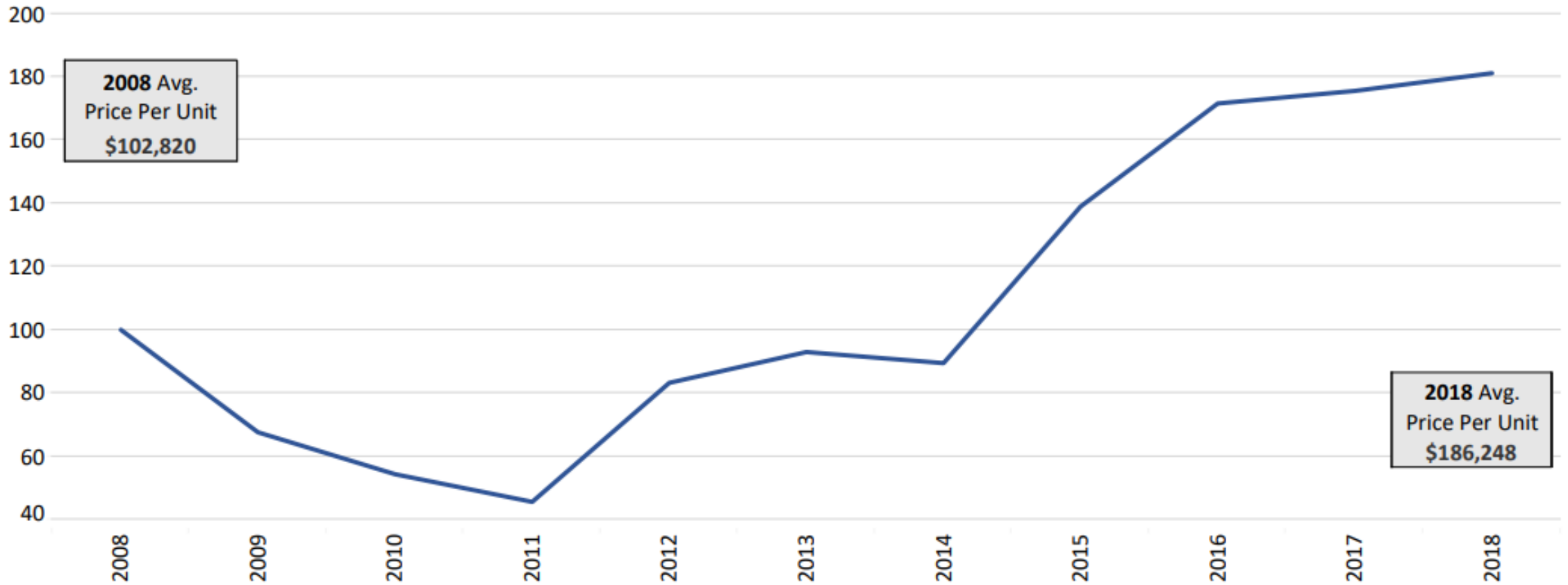


Multifamily Sales Prices: Miami



Price Per Unit Index 2008 = 100

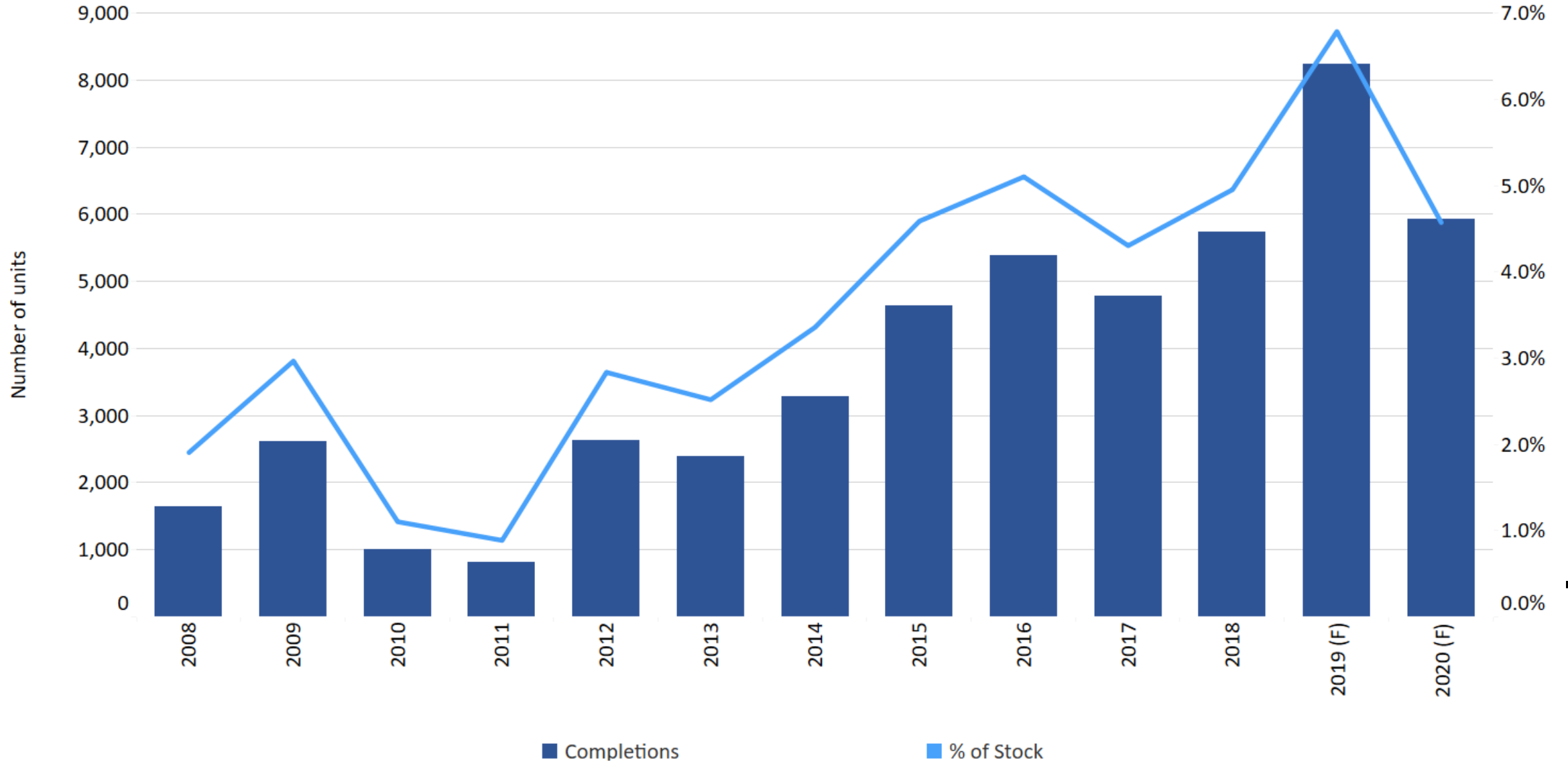
10-Year Growth: 81.1%
10-Year CAGR: 6.1%



2008 Avg.
Price Per Unit
\$102,820

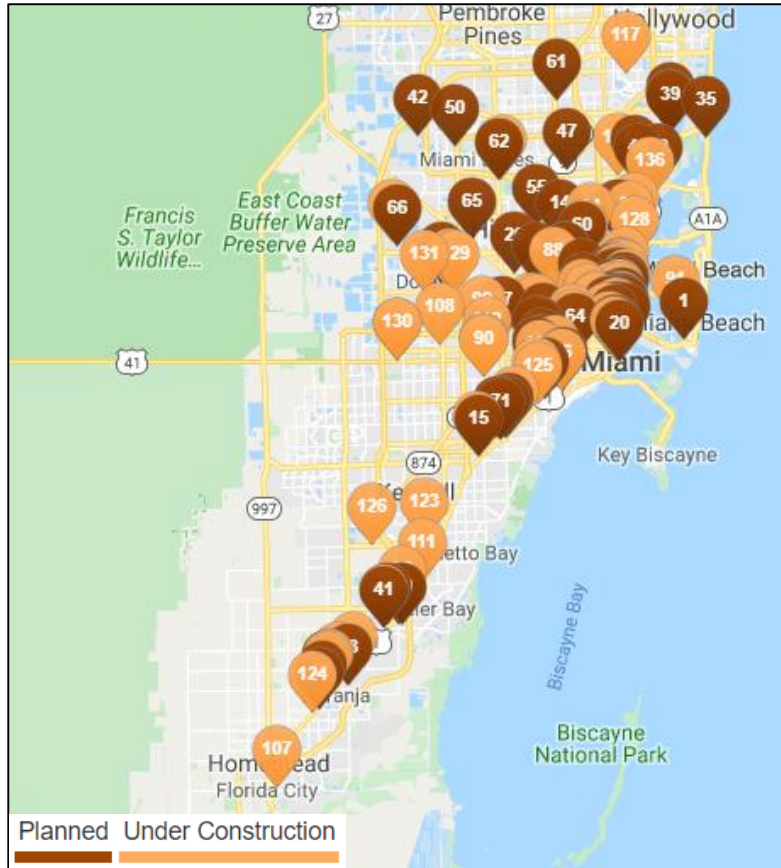
2018 Avg.
Price Per Unit
\$186,248

Multifamily Supply Pipeline: Miami



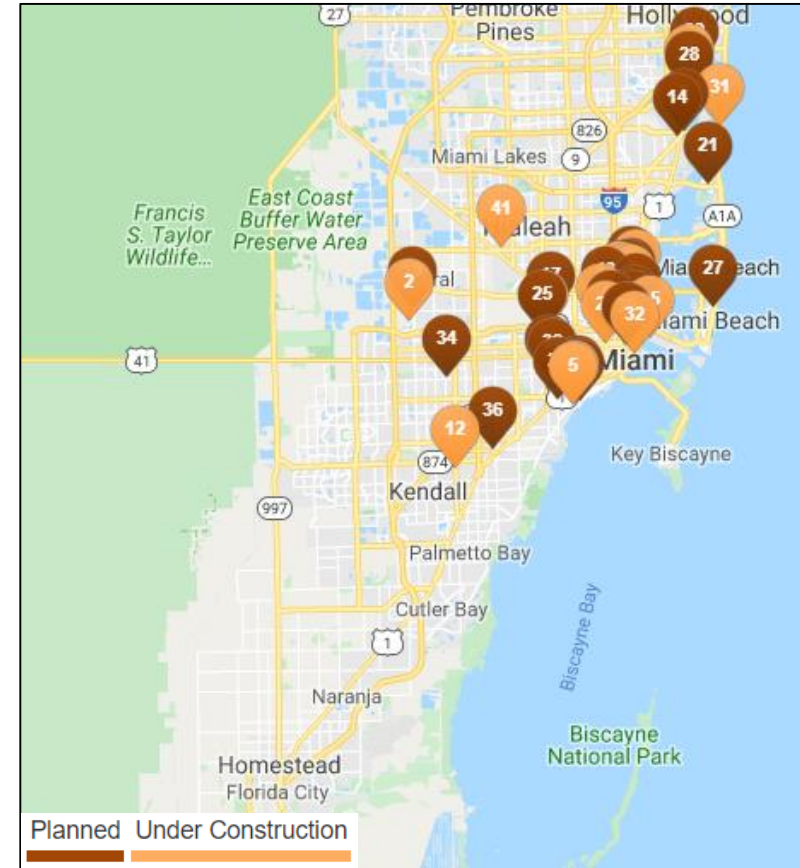
Miami Development Pipeline

Multifamily



Property Status	# of Units	% of Existing Stock
Under Construction	16,708	13.0%
Planned	27,529	21.5%

Office



Property Status	Sq. Ft.	% of Existing Stock
Under Construction	3,298,277	4.6%
Planned	6,188,570	8.6%

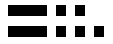
Top 5 Miami Submarkets With Construction Activity

Multifamily

Submarket	Units Under Construction	% of Existing Stock
Coral Gables	948	74.5%
Miami – Edgewater	1,954	70.6%
Miami – Upper East Side	822	58.3%
Miami – Downtown	2,563	52.8%
Airport	272	52.4%
Miami	16,708	13.0%

Office

Submarket	Sq. Ft. Construction	% of Existing Stock
Miami North	1,210,345	34.9%
Biscayne Corridor	107,274	9.2%
Coral Gables – Downtown	392,568	6.7%
Miami Coconut Grove	180,368	6.1%
Brickell	505,031	5.3%
Miami	3,298,277	4.6%



SUMMARY



1 Domestic migration out of Miami has been steadily increasing over the last few years, but has been offset by immigration. Employment growth in Miami is above the national average, but wage growth is below the national average.

2 Multifamily rents are rising, primarily in the lifestyle asset class. Occupancy for Renter-by-Necessity assets is outpacing the Lifestyle assets by about 1.5%. Overall occupancy has hovered between 95%-97% for the last 10 years. Multifamily completions are expected to peak in 2019 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 & C assets. Miami has about 4.6% of office sq. ft. under construction as a percentage of existing stock and most of that new supply will be added in the Miami North and Biscayne Corridor submarkets.





NEW TECHNOLOGIES EMERGING





Technology's Impact on Commercial Real Estate



ALREADY IN PROGRESS

UTILITY OPTIMIZATION

Independent monitoring of HVAC and all associated system and independent correction, optimization and fault notification

SMART HOME/BUILDING

Automate locks, rekeying, maintenance, guest entry

VIRTUAL & AUGMENTED REALITY

Sell, inspect, repair pre-completion and post completion

AI: MACHINE LEARNING

Prescriptive recommendations based on learned patterns and predicted outcomes

COMING SOON

DIGITAL ASSISTANTS

Alexa, Google Home, Smart AI that will enable digital actions: pay bills, appointments, etc.

MACHINE LEARNING: EVERYTHING

Everything that is developed and deployed will have some form of machine learning behind it: investments, asset management, operations, maintenance, construction

CHAT BOTS

Artificial intelligence natural language interactions: calls, emails, chat, helpers

RESEARCH & DEVELOPMENT

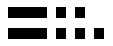
AUTONOMOUS TRANSPORTATION

Deliveries, parking, ride-sharing

ENERGY

Batteries and solar energy



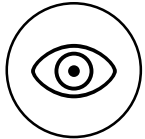


Technology Risks to Keep in Mind



Security

Regulatory burden is so high, people will look to third party providers to manage security of their IoT and AI networks

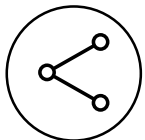


Privacy

What is considered “private” and what isn’t?

- It’s a fluid definition

Need to default to a conservative view of privacy



Operational Management

Who’s going to manage all the connected devices?

Who fields support calls?

What happens when something gets disconnected?

**ALTHOUGH TECHNOLOGY ENABLES A
PLUG AND PLAY ABILITY:**

Selecting, implementing and managing an enterprise wide “smart” technology platform needs a planned, thoughtful and process-oriented approach to be successful.





2019 OUTLOOK



- GDP growth will be slow moving into Q4, with a lot more noise.
- 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 your existing assets.
- The use of new technology is already impacting commercial space in help with costs, especially around **utility consumption**. This will accelerate as the technologies are more widely adopted.



THANK YOU

FOR ANY QUESTIONS PLEASE FEEL FREE TO CONTACT ME


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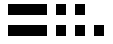
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