

US Multifamily Strategy & 2017 Update

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Today's Agenda – 2017 US Multifamily Strategy Update

1. Economic Overview & Policy Impacts
 1. Demand Drivers
 2. Policy Impacts – Real and Imaginary Impacts
2. The State of the Real Estate Economy
3. Long Term Issues – Demographics and Technology

Macroeconomic Outlook



The Yardi Matrix House View....

We have made a consistent very positive case for US Multifamily Investment for several years- But hold on tight now, bumps ahead!

1. US macroeconomic conditions, while not great, are solid and generating job growth of ~150-200K jobs per month

- Enough to maintain MF occupancy and good, but decelerating, rent growth vs 2012-2015

2. MF Demand is a big tailwind, both Short and Long Term

- Job Formation, Demographics, Affordability, and Technological change are all combining for a positive perfect storm for the next 10-20 years

3. MF Supply is peaking in 2017 - which will slow, but not stop, continued rent growth

- Supply surges are focused in major urban hubs of a select number of gateway and top tier cities, at very high rents
- Tighter regulatory oversight of banks has restricted new construction financing of all types
- Housing is in shortage in mid-priced apartments- **and the opportunity in value add has attracted institutional capital to such an extent that leading edge players are culling and waiting to lean back into Core assets**

4. Oil price decline has bottomed, with regional pain on the slow mend - Houston, OKC, to a lesser extent Denver & Pittsburgh

- Currently ~\$50/bbl off a ~\$38 low in early '16.

5. Major Top 30-40 Non-gateway markets, and their emerging intellectual capital nodes represent one strategy for institutional investors to target a position in US Multifamily that have good odds of generating capital appreciation with income

- Opportunistic or yield investors need to move to "unloved" markets away from institutional investors, following
- Value Add has good odds of success, on fundamentals- price gap between Luxury and Middle Market rents

How Do Things Look Now?....

The Outlook remains positive, but guarded for the next 18-24 months as supply gets absorbed ; the extent of which is based upon the balance of pro-growth vs. immigration/trade policy emphasis

1. US Macro Conditions

- The move in long term rates has flattened out at ~40 bp, clipping IRR's by <1%; but offsets from revenue, expense and debt actions are available... Getting US GDP growth from 2% up to 3% is the heavy lift
- Potential for Pro-Growth policies come in two forms:
 - Executive: loosening of regulations- which can come quickly, once departments are staffed
 - Legislative: (tax reform, education reform, health care re-reform, infrastructure spending) may take some time to play out and are not without some risk in “the sausage factory” that is Congress
- Immigration and trade restriction policies impact is currently minor- “more heat than light”
 - Our recent work here highlight that the 6 Int’l Gateway Cities are Exposed the most; the rest much less so
 - Extractive (mining) and transformative (manufacturing) regions may benefit vs. those dependent on technology and global export of ideas—but long term wealth creation is still intellectually based
 - There are ripple effects in the construction trades, raising costs/delaying completions
- Yet, in a still low yield Environment Where Can An Investor Find Yield?
- Monetary Policy, and the Debt Surge it has engendered in the Gov’t & Publicly Traded corporate sector, has reached its limits (or very near its limits)— Pro-growth Fiscal policy is the way forward
- US Multifamily, and US Commercial Real Estate, is ***still the place to be***, but the ride is going to be bumpy

How Do Things Look Now?....

The Outlook remains positive; the extent of which is based upon the balance of pro-growth vs. immigration/trade policy emphasis

2. Apartment market conditions

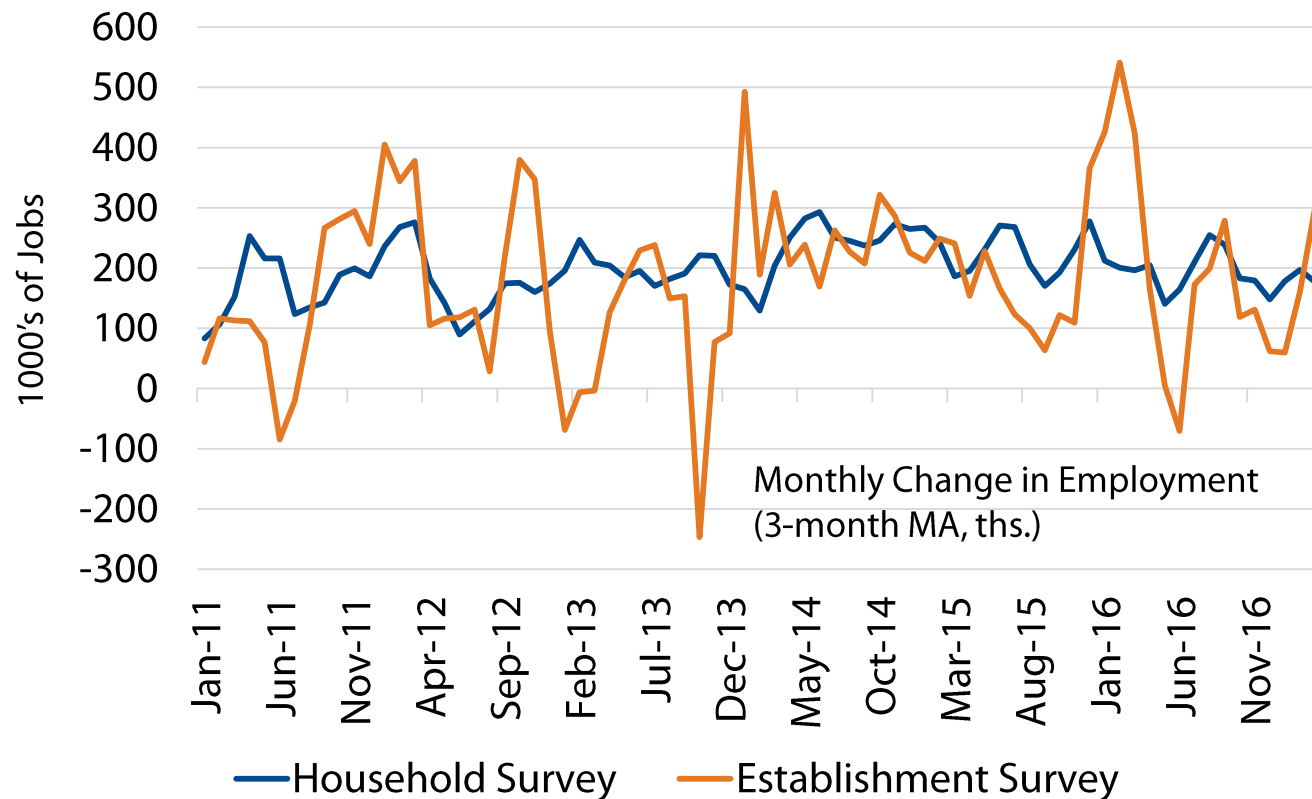
- High occupancy on stabilized properties, but sliding; Mkts/Sub-mkts with new supply impacted the most
- Decelerating rent growth- ~2-3% ; extent based on new supply impact; Upper end impacted much more
- Structural components of demand are still big tailwinds as before
- Wage pressures in the US are growing, finally catching up to rent increases in some US Markets
- Supply is peaking in '17- total pipeline has leveled off

3. Dislocation in Comm'l Real Estate Debt Markets, driven by regulatory influences, is restraining growth in new construction financing

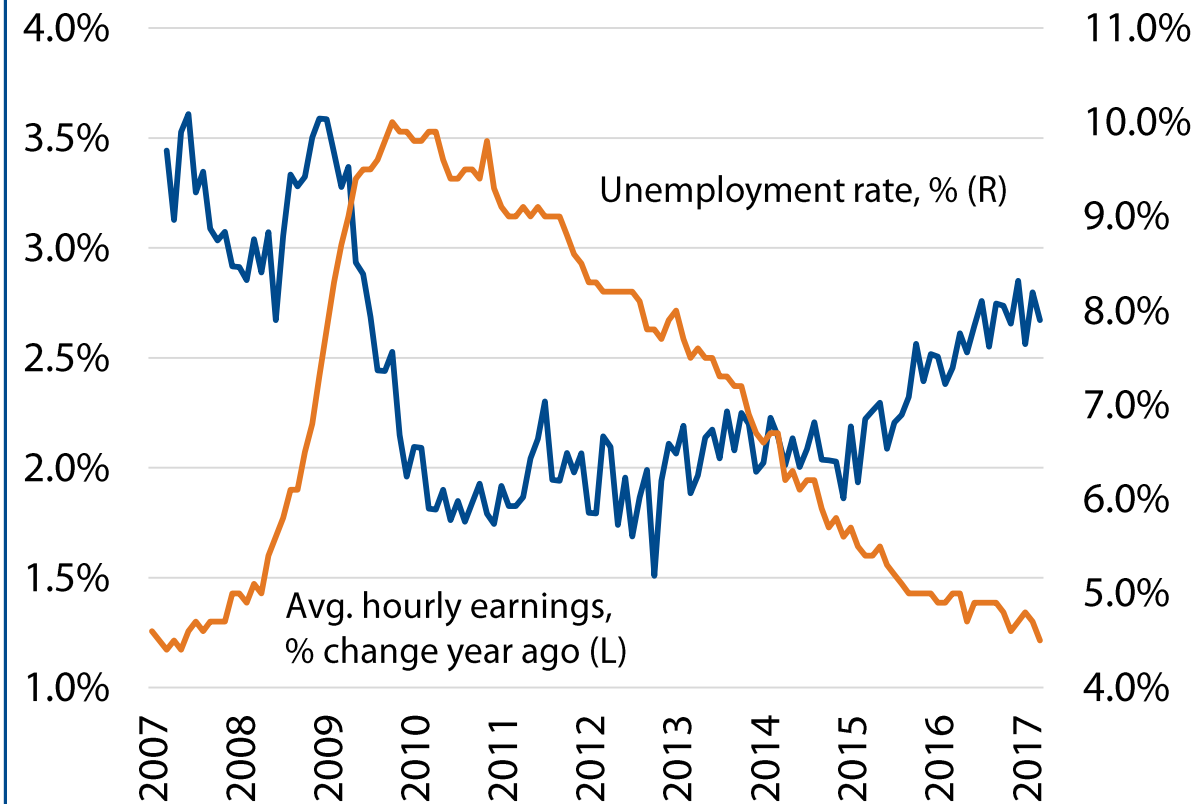
- Dislocations in Bank and CMBS debt markets will extend the apartment rental growth up-cycle
- Debt availability and cost is more tied than ever to global financial markets, despite the steadying influence of the GSEs (50% debt market share, and able to do more with Green/Affordable/Small Balance/ Variable Rate Programs).
- Long-term rates are not moving at the same pace that is expected in short-term rates
 - Yield Curve bears close watching;
- Asset Value growth will be restrained, but not stopped, due to these cross-currents
 - Depends on pace of income growth relative to upward interest rate movements
 - **But watch out below if fiscal policy stalls, and job growth stalls with it in the next 24 months**

Job Growth and Wage Growth

Job formation good, but a tad more volatile

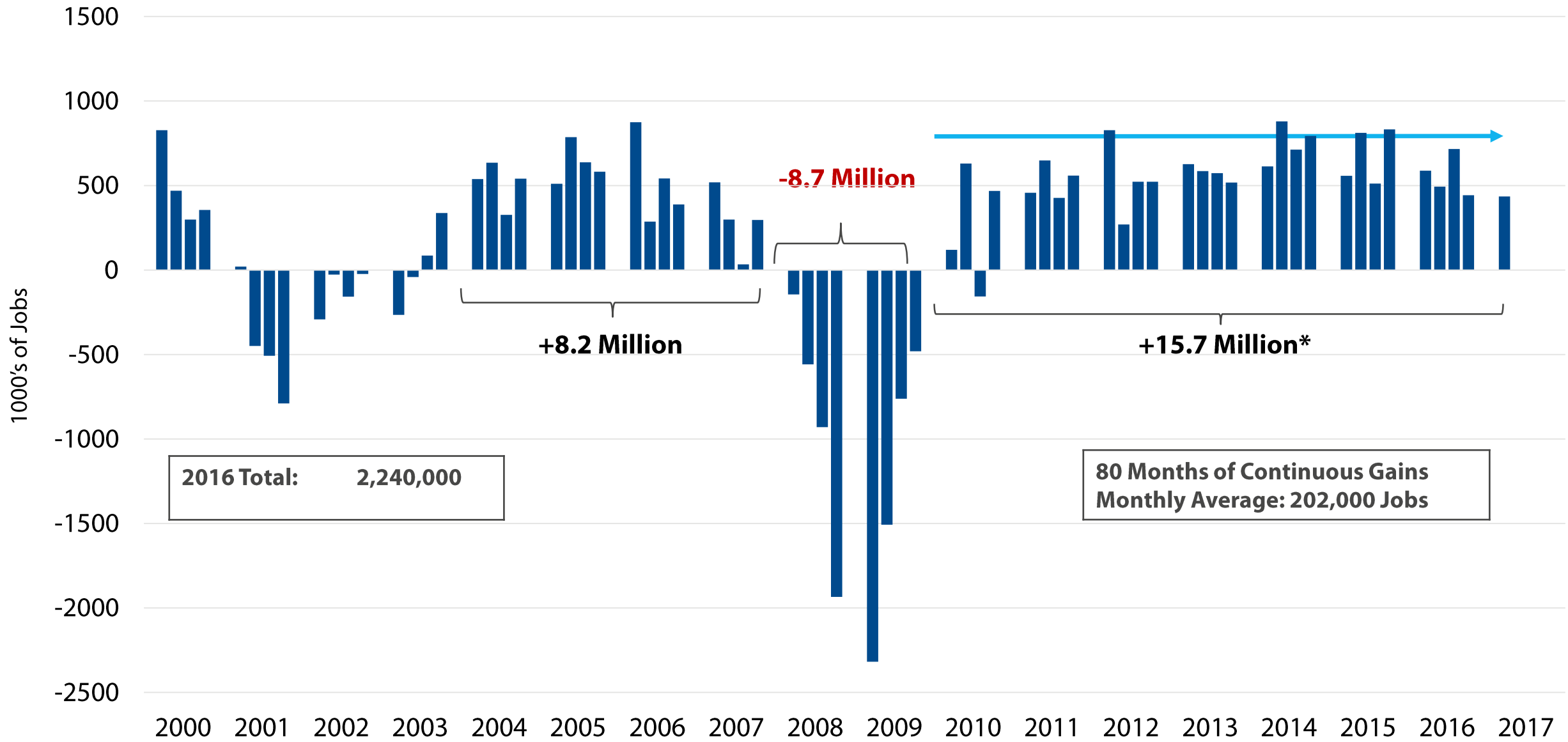


US Wage Pressure Increasing



Source: Moody's Analytics; Bureau of Labor Statistics (BLS); CPS

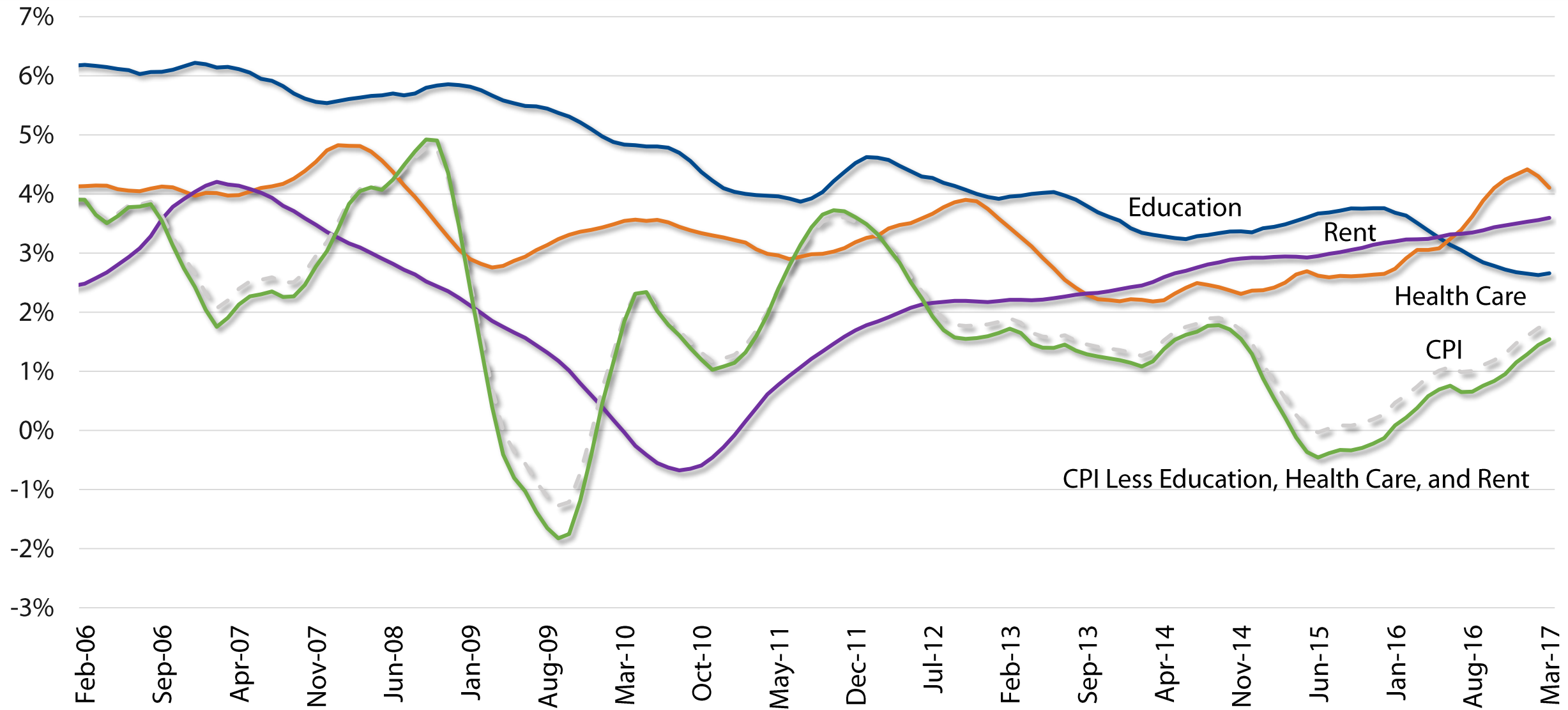
Quarterly Job Growth



Source: Bureau of Labor Statistics (BLS)

*Through February 2017

Inflation Rising – but unlikely to break out >2.5%

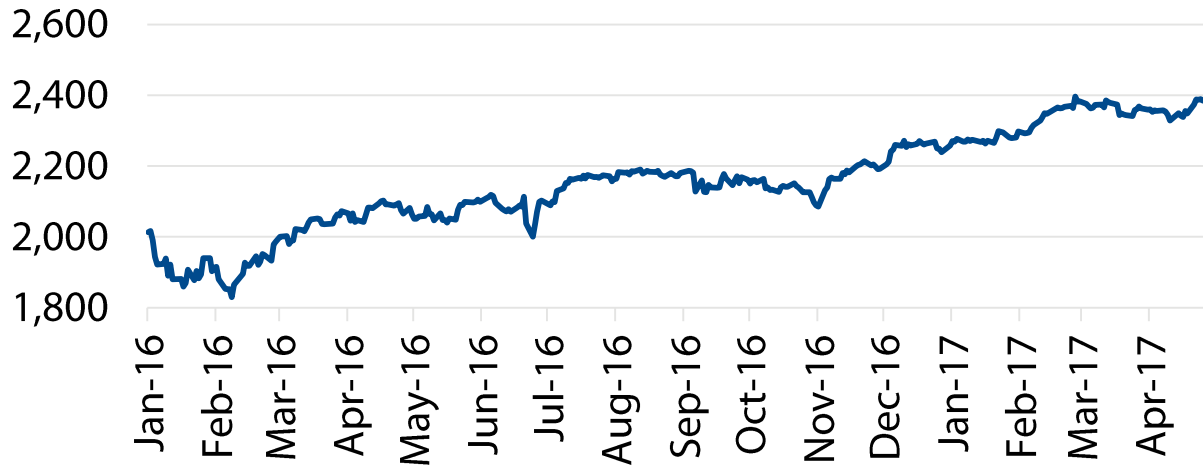


*Growth numbers are YOY 6 month moving averages. CPI Less Health Care, Education and Rent is an estimate using the BLS document "Math calculations to better utilize CPI data"

Source: Moody's Analytics; Bureau of Labor Statistics (BLS)

U.S. and International Financial Market Performance

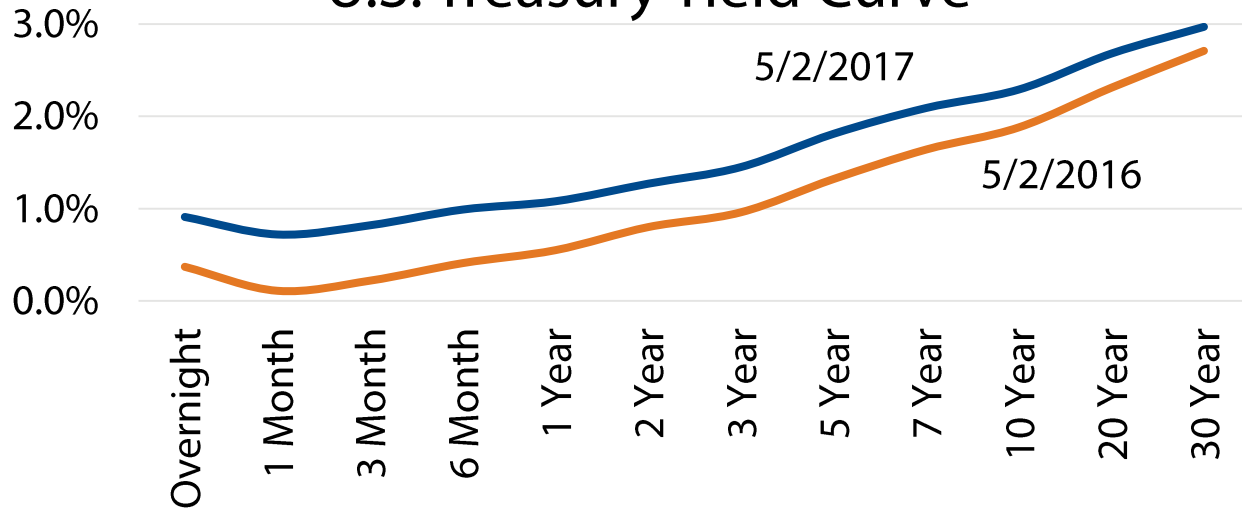
S&P 500



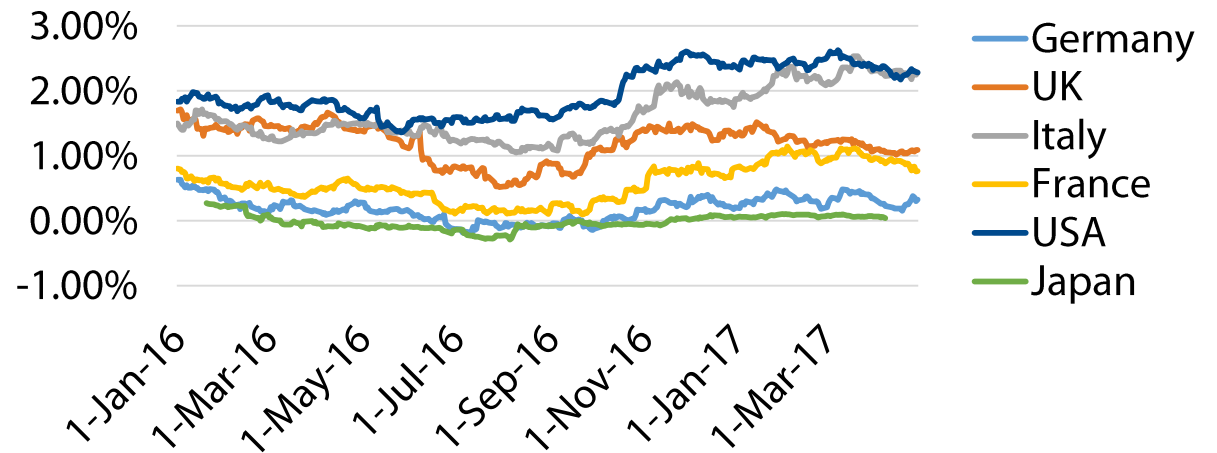
10 -Year Treasury Note



U.S. Treasury Yield Curve



10-Year Treasury Bond Yields



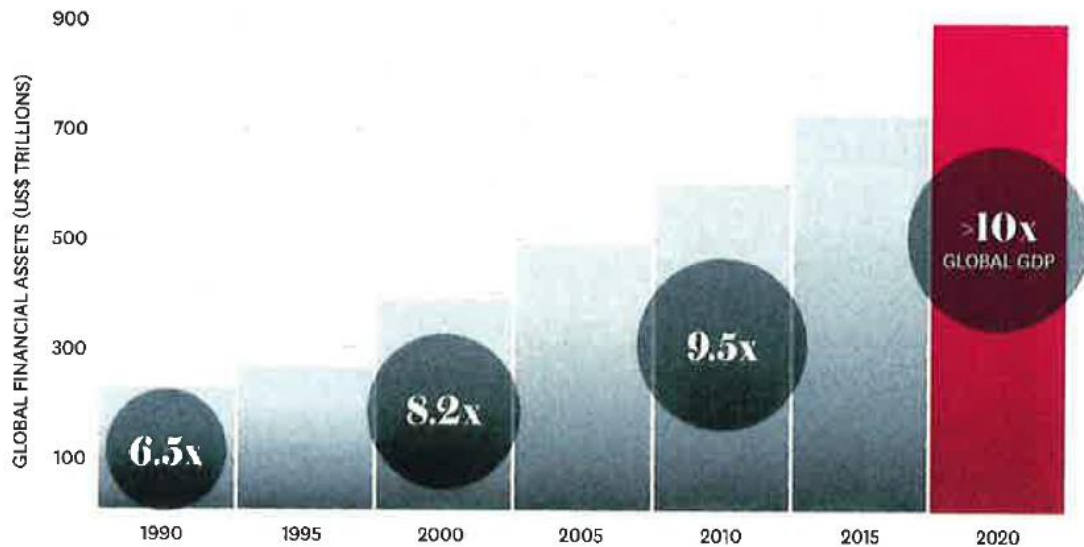
Long-Run Cost of Capital May Be Low for Longer Than We Think

Demographic aging of developed world population and excess production capacity in China means the cost of capital may be low for a very long time, maybe as long as 20 years.

Mid term range is probably a move up =< 75bp on 10Yr to =< 3%

GROWTH IN THE GLOBAL BALANCE SHEET

Worldwide financial assets keep building up—faster than global GDP.

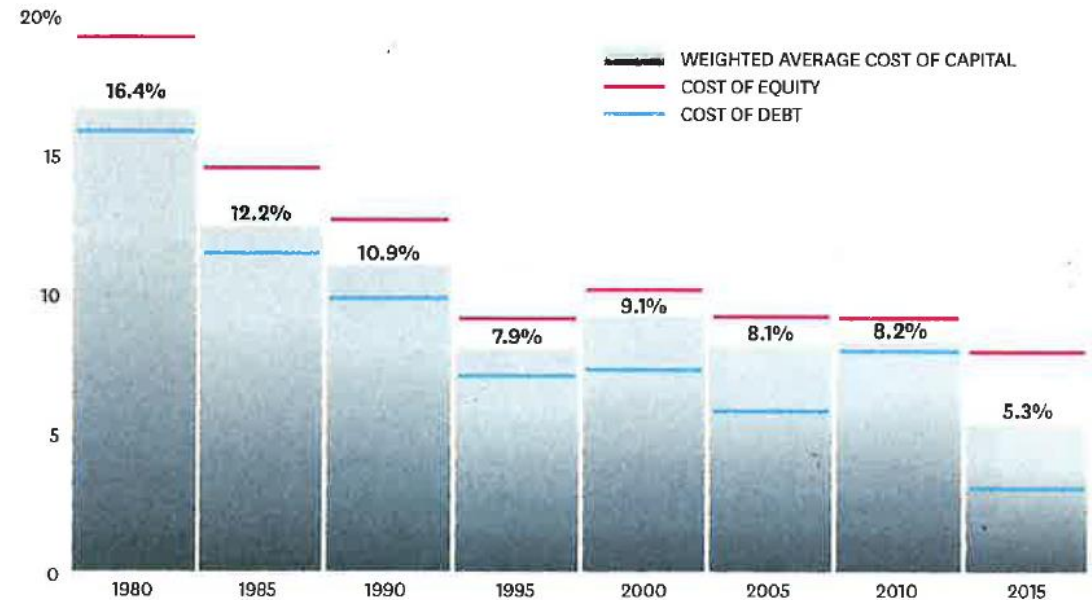


SOURCE BAIN MACRO TRENDS GROUP. NOTE: ASSETS AND MULTIPLES OF GLOBAL GDP WERE CALCULATED USING 2010 PRICES AND EXCHANGE RATES. DATA IS ESTIMATED FOR 2015 AND PROJECTED FOR 2020.

Source: Bain Macro Trends Group

HOW THE COST OF CAPITAL HAS EVOLVED

The cost of capital for most large U.S. companies is at its lowest level in decades.



SOURCE BAIN & COMPANY. NOTE: DATA IS FOR COMPANIES IN THE VALUE LINE INDEX.

GSE “Green” Programs- a Boost to Value Add

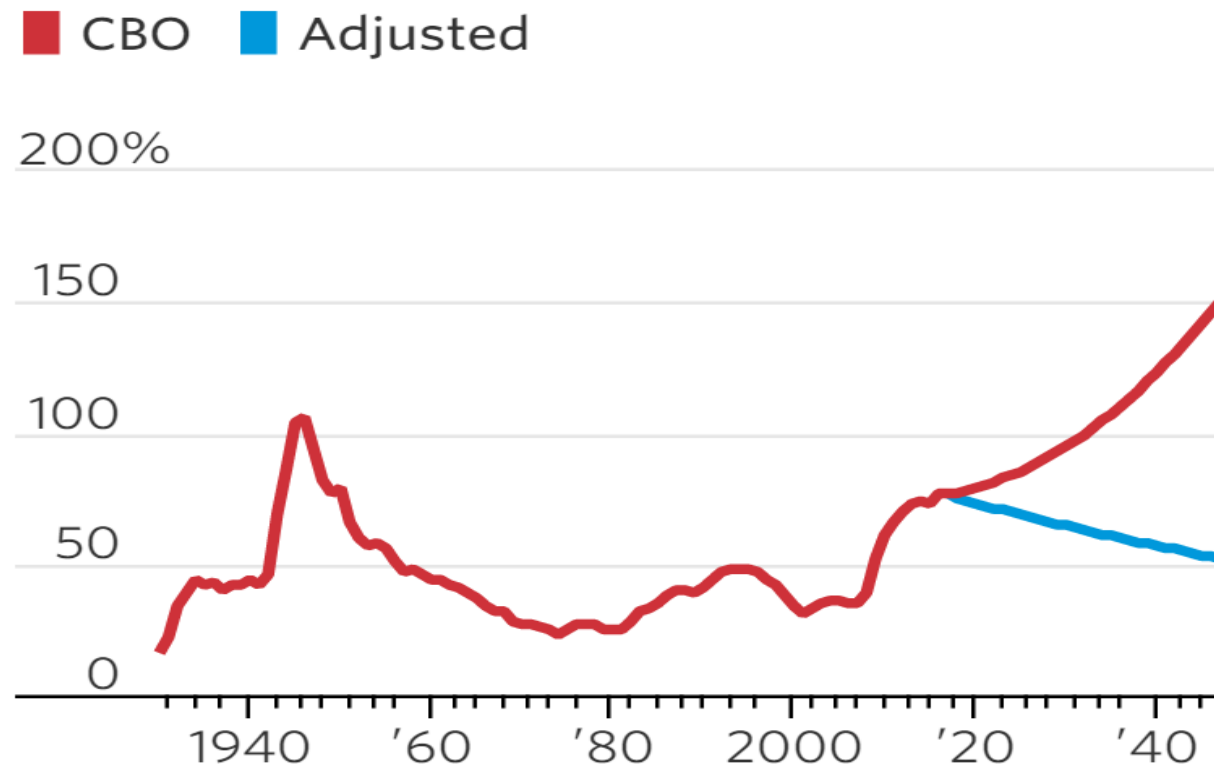
Major Program Elements-

- 30 - 35 bp reduction in Interest rate
- 15%-20% reduction in Energy and/or Water (GSEs are “or”, FHA is “and”)
- Cost of Energy Plans reimbursed by Agencies
- 75% of Pro-forma savings written into UW NOI
- Loans NOT subject to volume caps
- 100% audit of owner bills, 10% audit of Resident bills

- Impact is ~5 - 6% of value on a typical deal – blunts impact of T-bill 10 Yr increases
- **Originators & GSEs report most/all value adds have been qualifying**

The Future of National Debt Depends on GDP Growth

- Raising long-term GDP growth from 2% to 3% drives just about everything
 - US government debt, equity markets, corporate debt, etc.
 - That's what matters

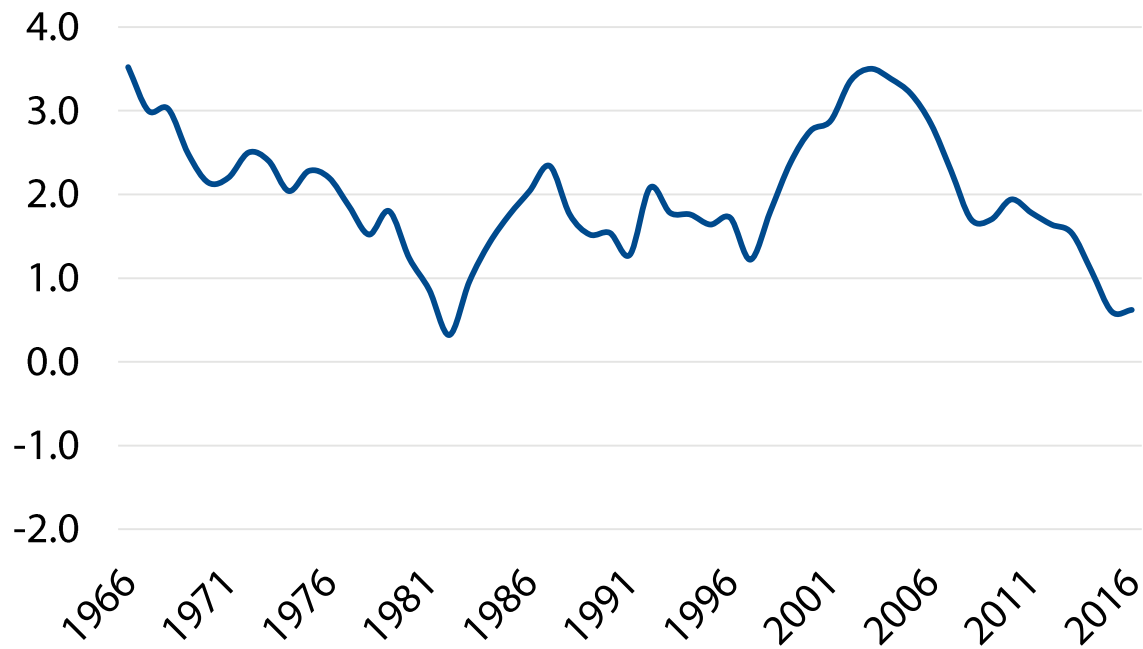


Source: Congressional Budget Office; Wall Street Journal

Getting US GDP to Grow Means Swimming Upstream

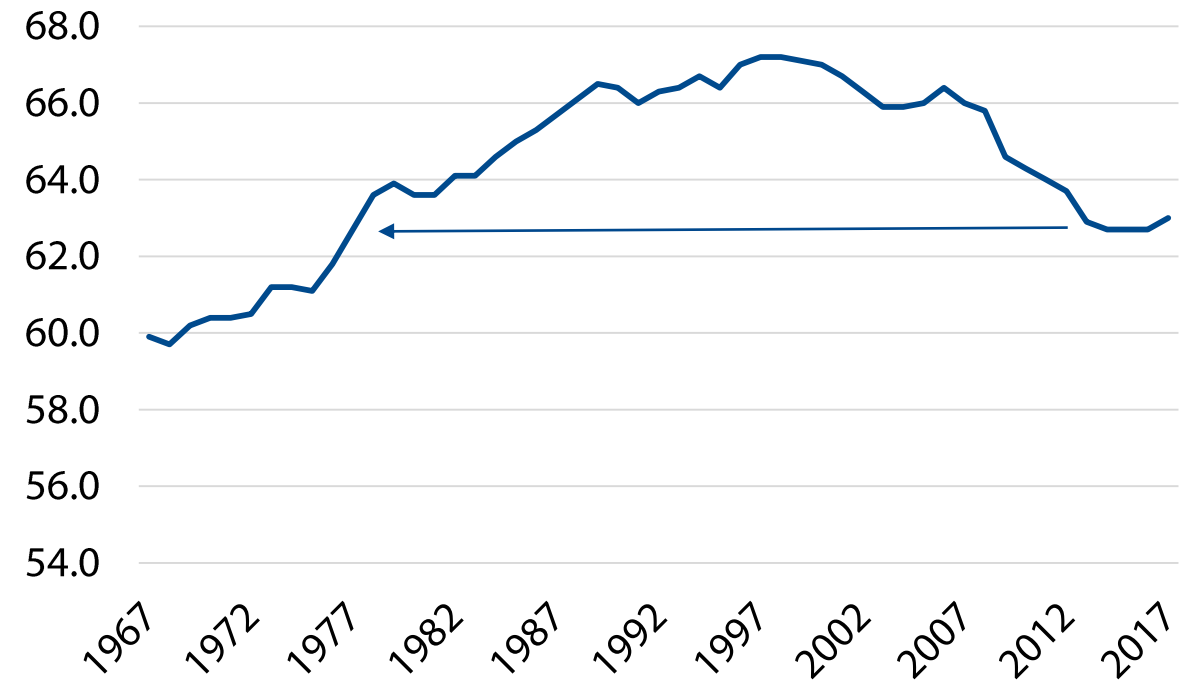
Where will US GDP Growth come from?

Labor Productivity Annual Change – 5 Year Rolling Average



2001-2016 mirrors 1966-1981- ugh!

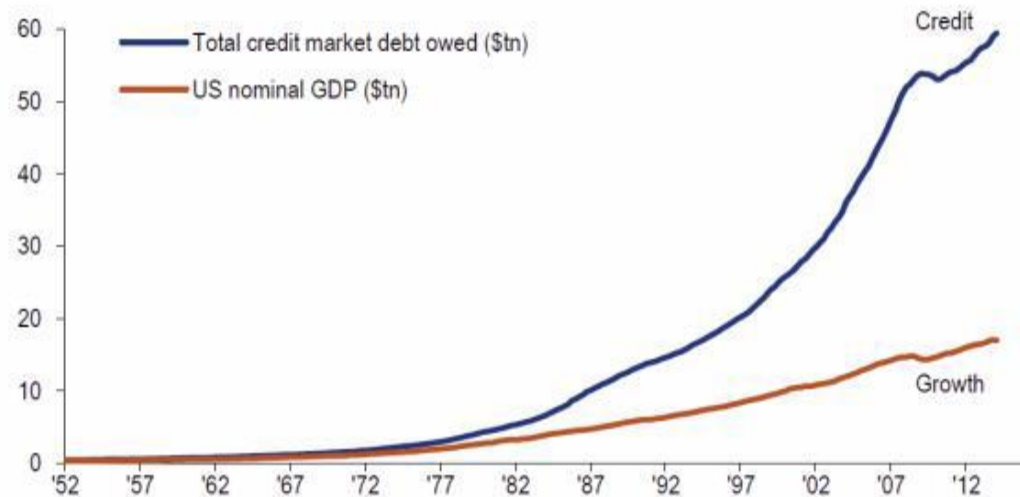
Labor Force Participation Rate



Back to the 70's- ugh!

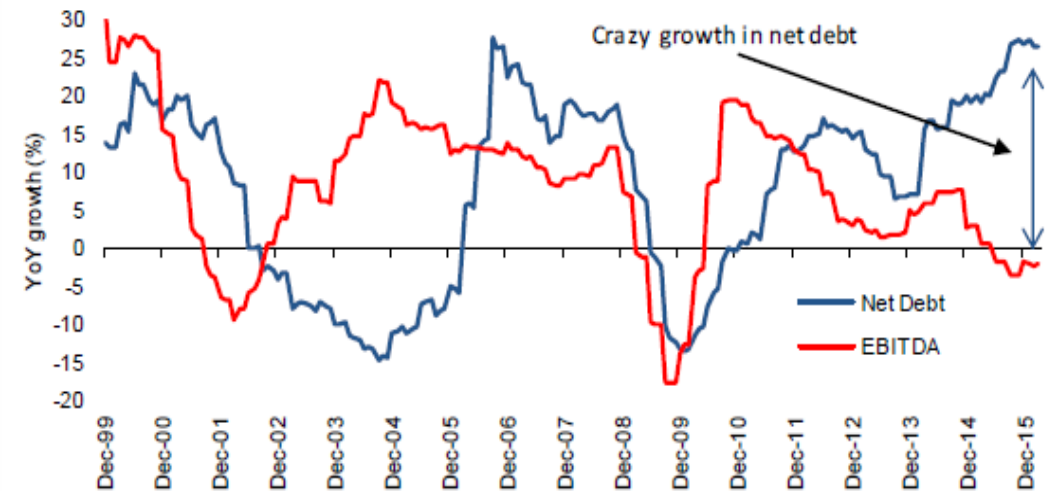
Increasing Debt Burdens Increase Financial System Risk

- Government & Publicly Traded Corporate Debt Loads are High and Increasing
- Tech and Healthcare had been the stimulus to private sector employment, both are moderating
- Low Interest Rates have allowed a rapid growth in unsustainable gov't transfer payments
- Gov't Policy had been anti-growth and credit rationing had raised hurdles to small business growth
- Global Pro-Growth Gov't Fiscal policies are needed; at least the discussion is in the right direction



Source: Moody's Analytics; Bureau of Labor Statistics (BLS); CPS

US non-financials yoy change in net debt versus operating cash flow



Source: SG Cross Asset Research/Equity Quant, Factset, company reports and accounts

US Federal Policy Mix

Pro-Growth

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



Generally Positive
Progress

Pro-Growth but Slow

- Tax Reform
- Healthcare Reform
- Infrastructure
- Education Reform
 - German Model



Progress in Tone, but
Not Yet Substantive

Anti-Growth

- Immigration Control
- Trade Renegotiation

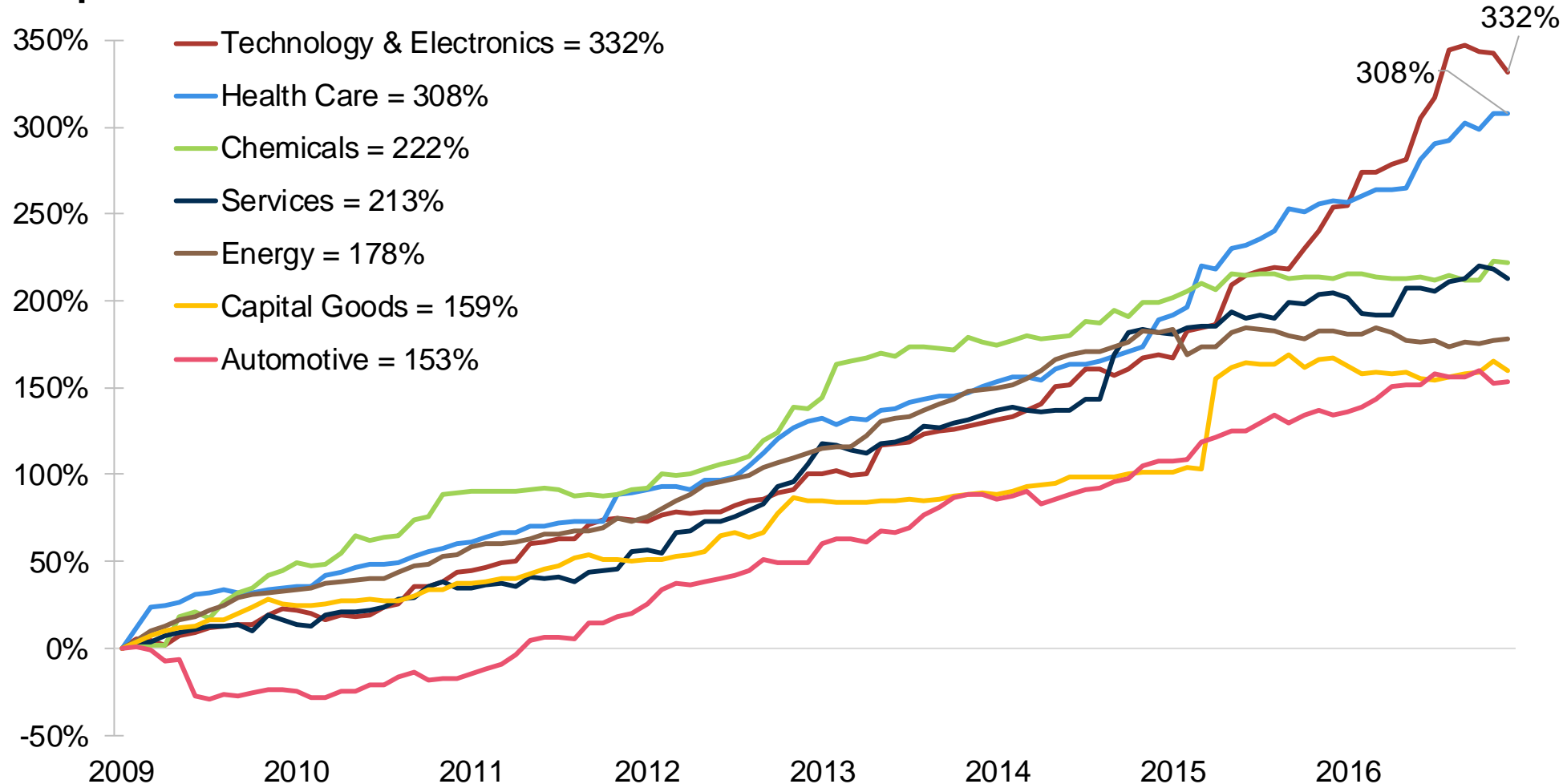


Noise but no real
action

Corporate Debt Levels for Tech and Health Care Surge

Tech and Health Care Industries' Corporate Debt Up 300%+ Since 2009, Topping All Other Industries

Corporate Debt Growth since 2009



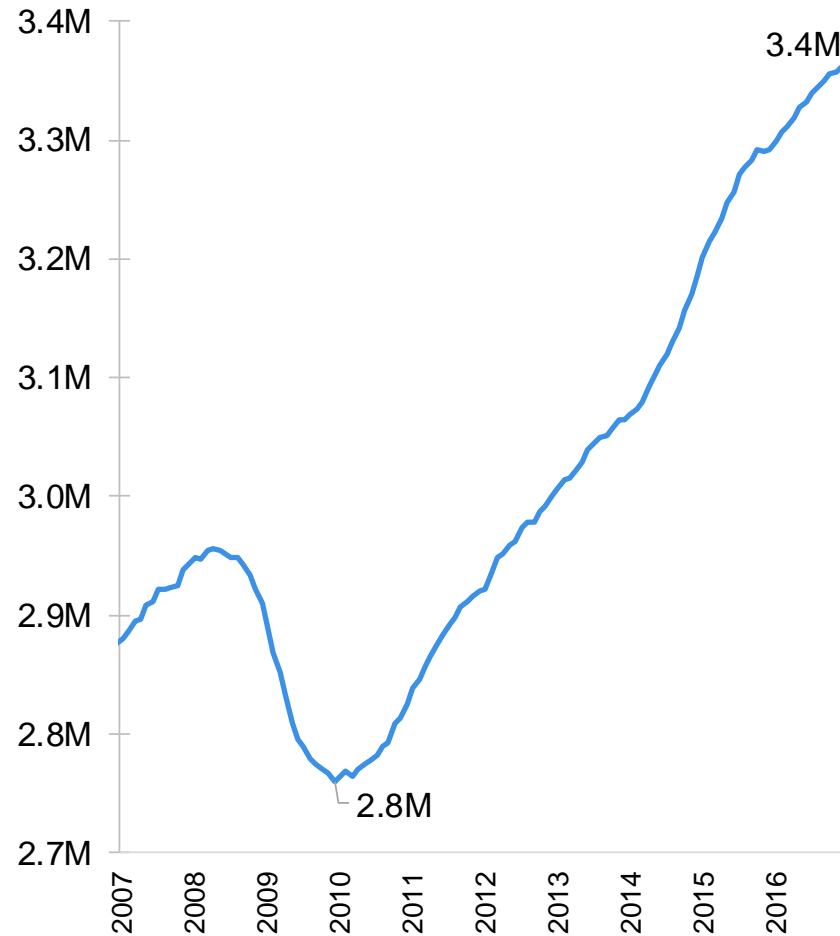
*Services does not align with BLS definition of Professional and Business Services. Debt is denominated in USD

Source: John Burns Real Estate Consulting, LLC; Bank of America Merrill Lynch (Data: Dec-16, Pub: Feb-17)

Technology Sector: Employment Up, With Job Growth Slowing

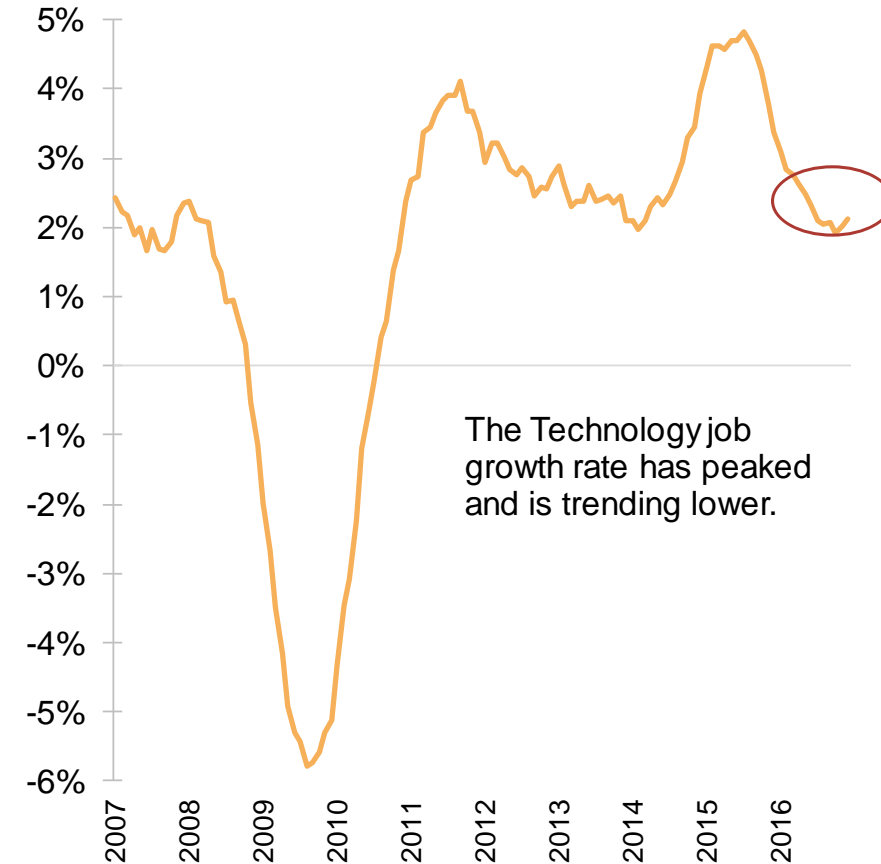
Employment is up 21% since bottoming in late 2009, and job growth is slowing

Technology Sector Employment



Technology Sector Employment

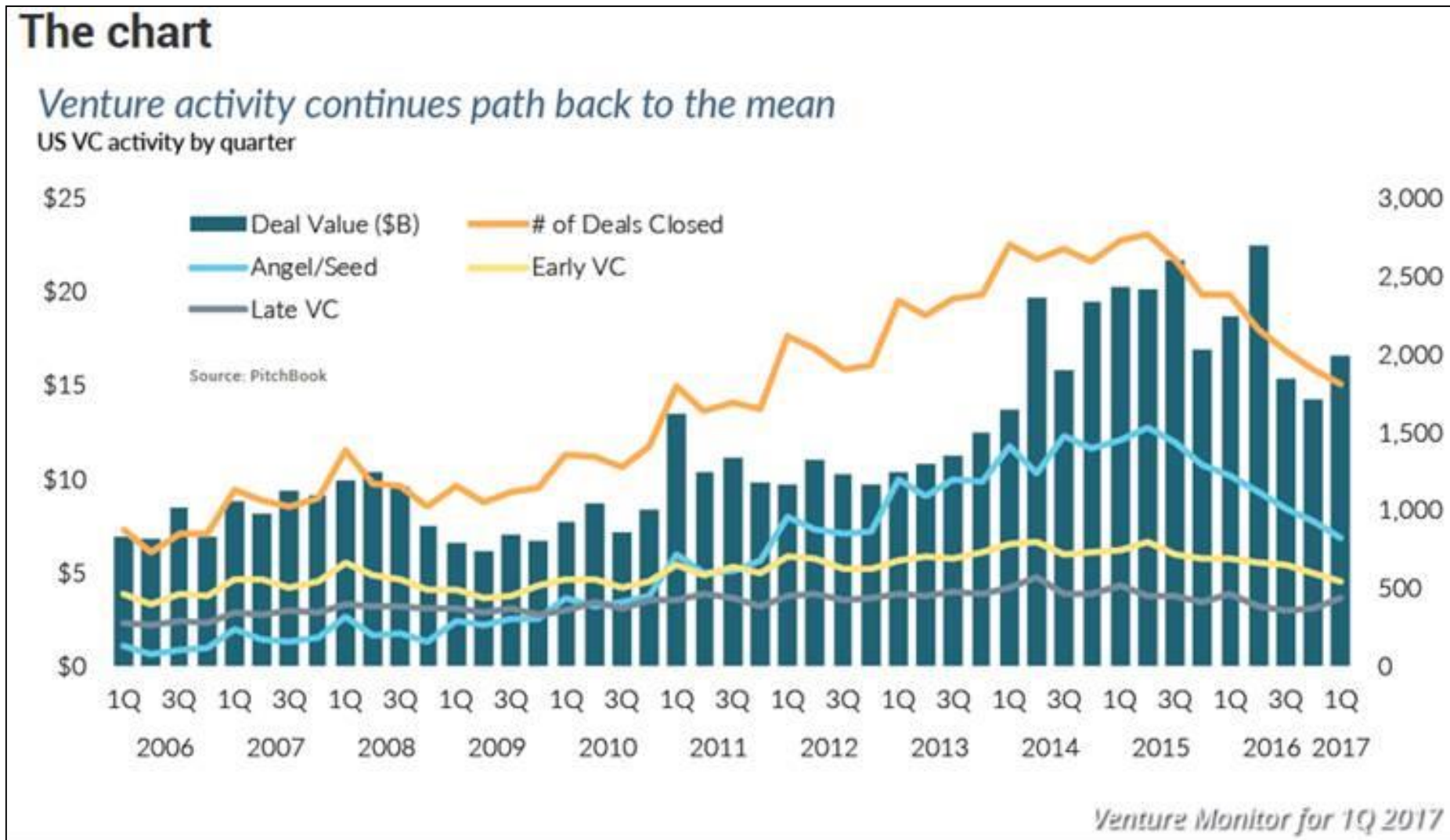
YOY growth



The Technology job growth rate has peaked and is trending lower.

*Technology jobs are defined as Bureau of Labor Statistics (BLS) NAICS codes: Computer and Electronic Products, Data Processing & Hosting, Computer Systems Design and Related Services

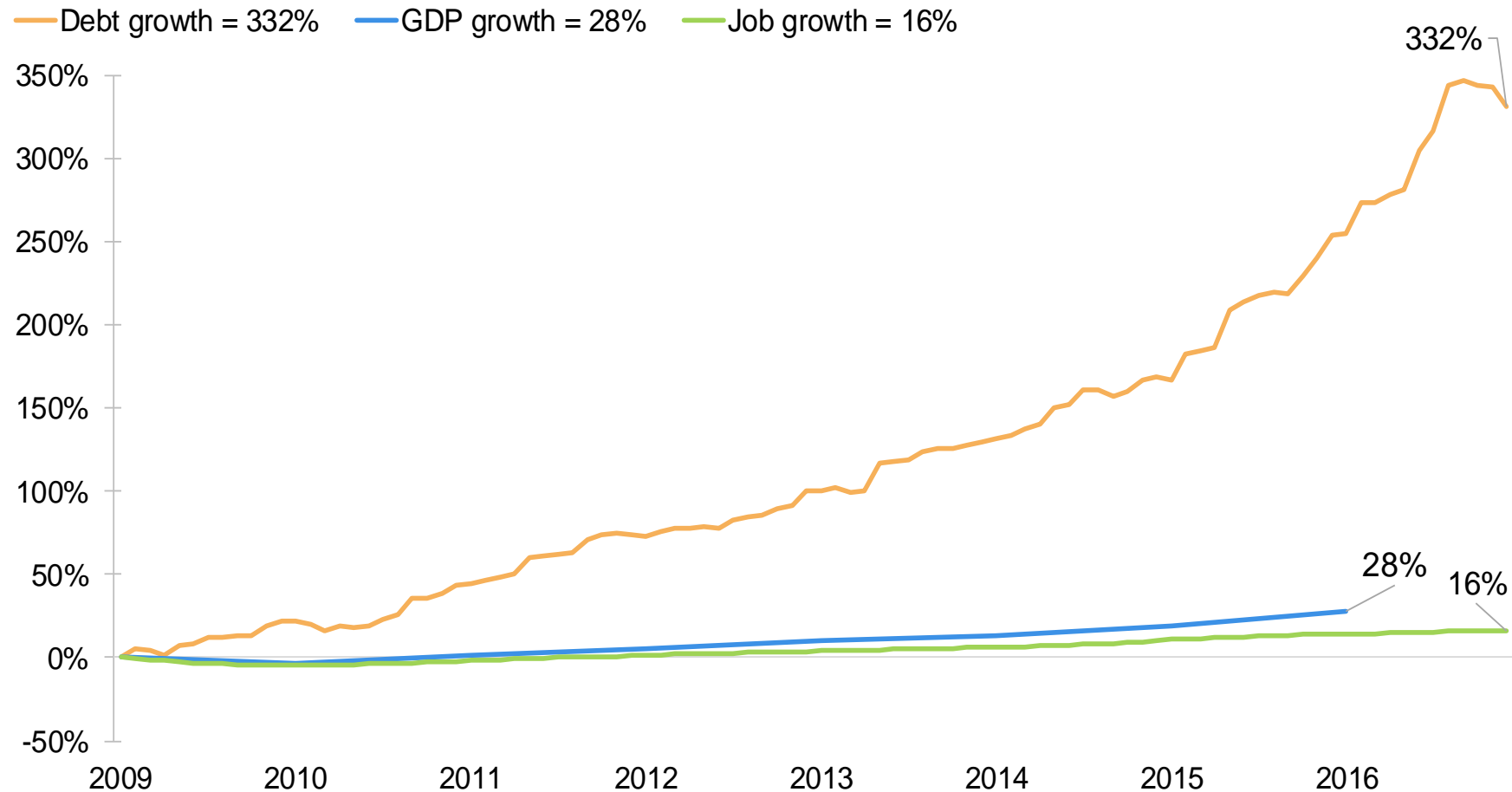
Venture Capital Funding is a Precursor for the Overall Economy



Current Technology Industry Boom

Corporate Debt +322%, 20 Times More than Industry Job Growth and 12 Times More than Industry GDP Growth

Technology Sector Growth (2009–Current): Debt, GDP, Jobs



*GDP data at sector level is annual and only goes through 2015

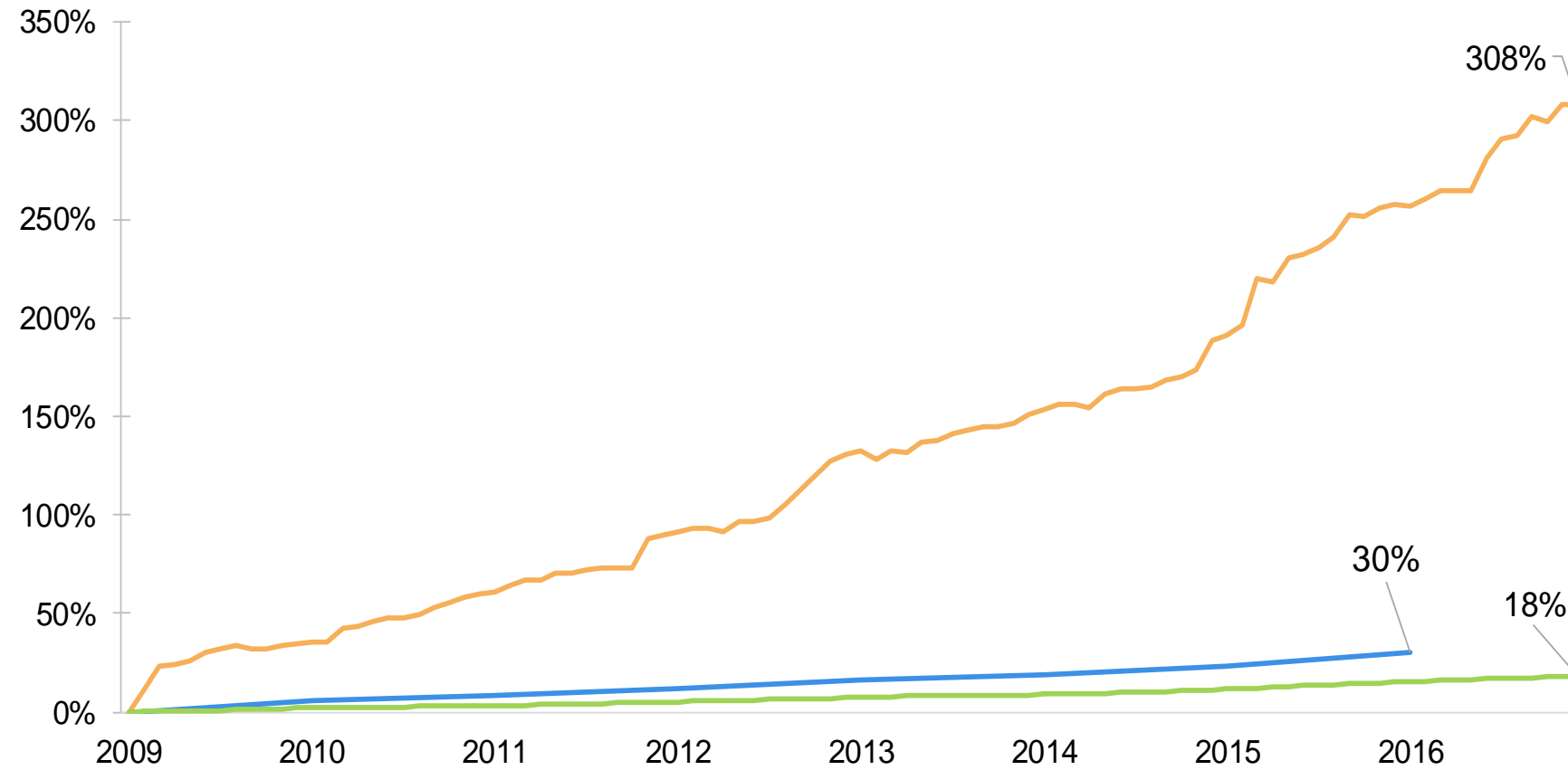
Source: John Burns Real Estate Consulting, LLC; Bank of America Merrill Lynch; Bureau of Economic Analysis (BEA), Bureau of Labor Statistics (BLS) (Data: Dec-16, Pub: Feb-17)

Current Health Care Industry Boom

Corporate Debt +308%, 17 Times More than Industry Job Growth and 10 Times More than Industry GDP Growth

Health Care Sector Growth (2009–Current): Debt, GDP, Jobs

— Debt growth = 308% — GDP growth = 30% — Job growth = 18%



*GDP data at sector level is annual and only goes through 2015

Source: John Burns Real Estate Consulting, LLC; Bank of America Merrill Lynch; Bureau of Economic Analysis (BEA); Bureau of Labor Statistics (BLS) (Data: Dec-16, Pub: Feb-17)

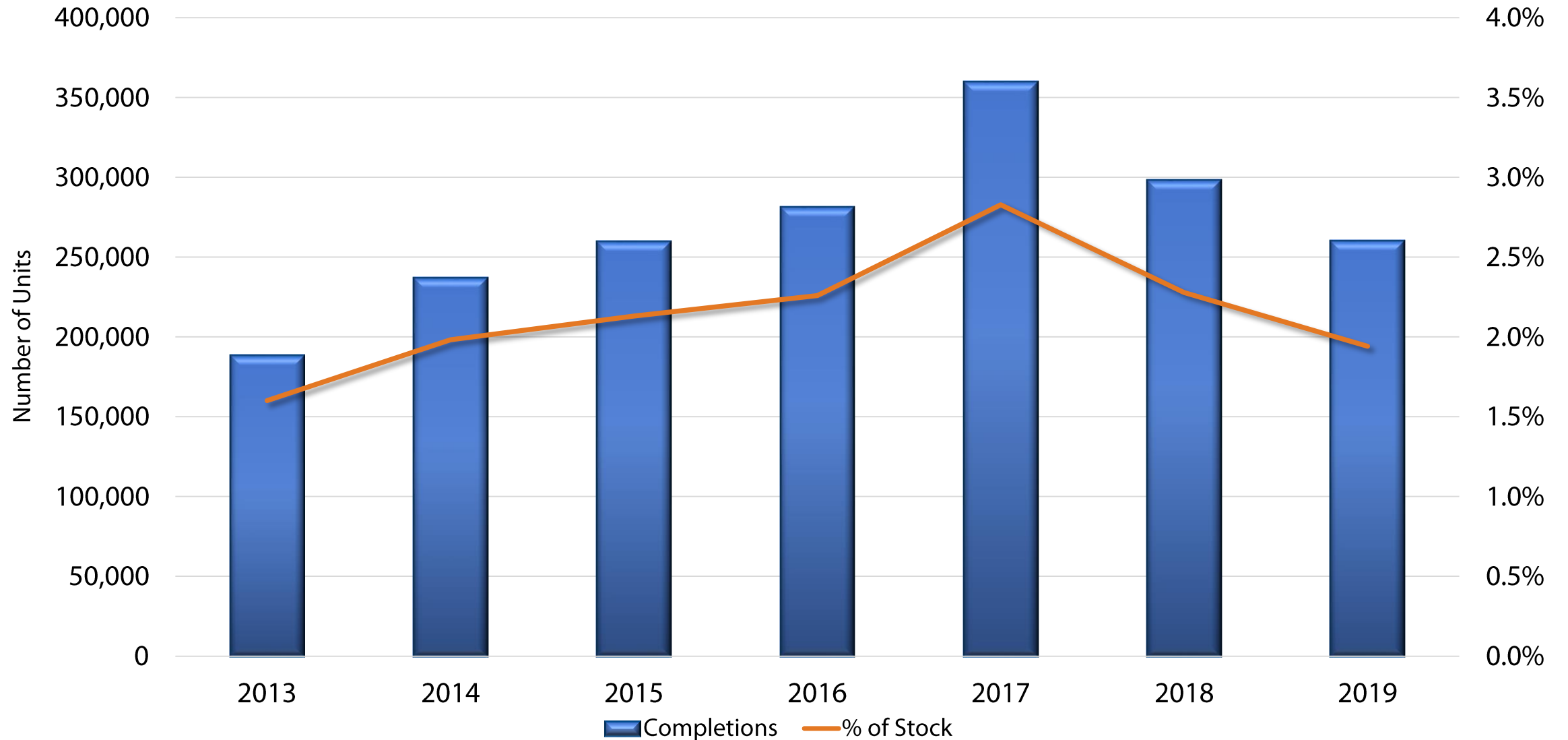
So What ?- Economy & Federal Policy

1. Job growth overall looks good and reasonably steady
2. Inflation is range bound and unlikely to break out – either up or down
3. Cost of capital may be low for quite a while due to retiring “saver” cohorts (Gen X and Boomers)
4. Near term (12-24 months) pressures are building in the sectors that led us out of the last recession: Technology and Healthcare – could be mitigated by pro-growth fiscal policy
5. Coincides with current multifamily supply surge in some markets
6. Long term demographics still look great
7. Positive public policies can get us out of this situation

Commercial Real Estate Fundamentals



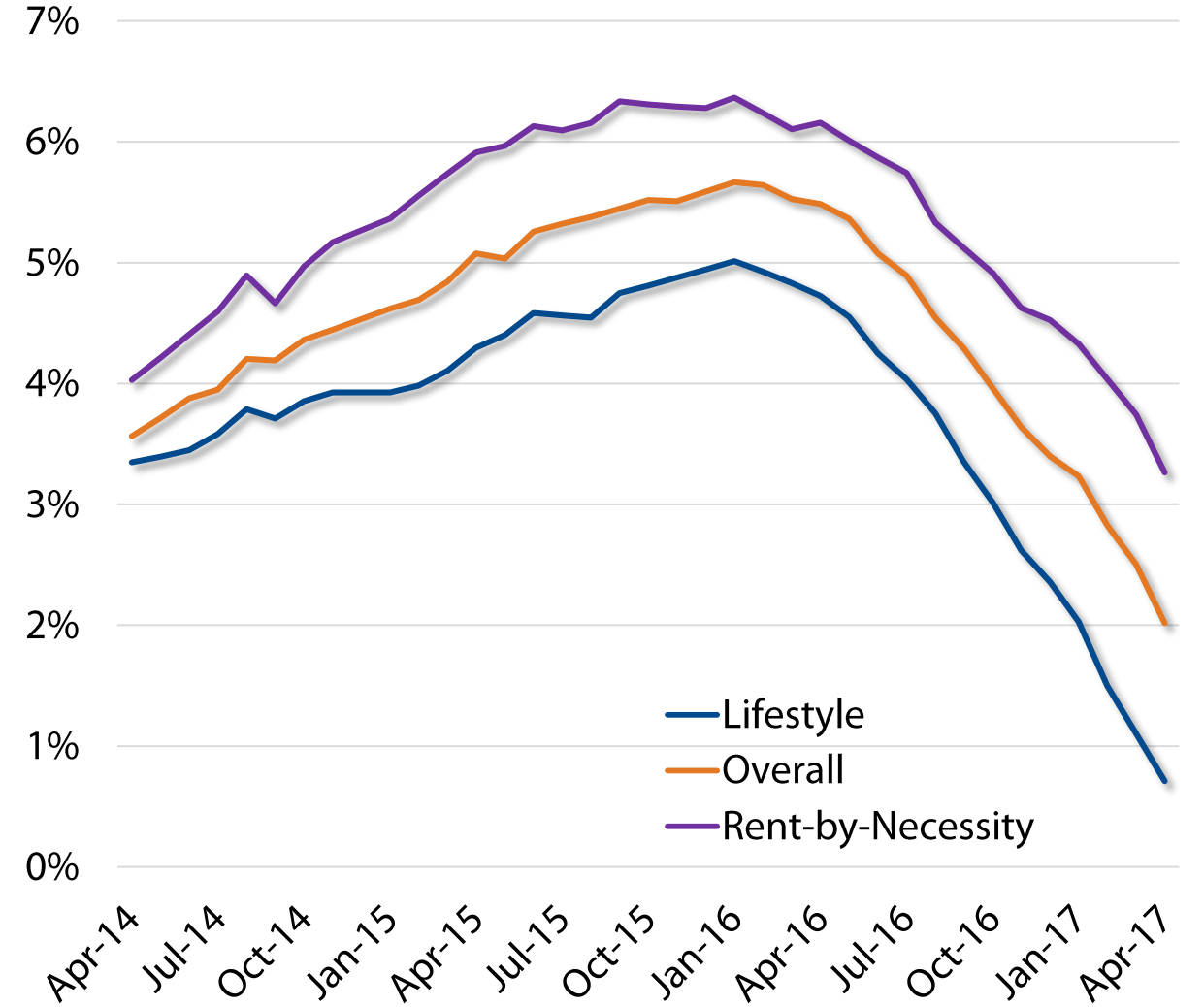
Supply Continues to Grow, but will Likely Peak in 2017



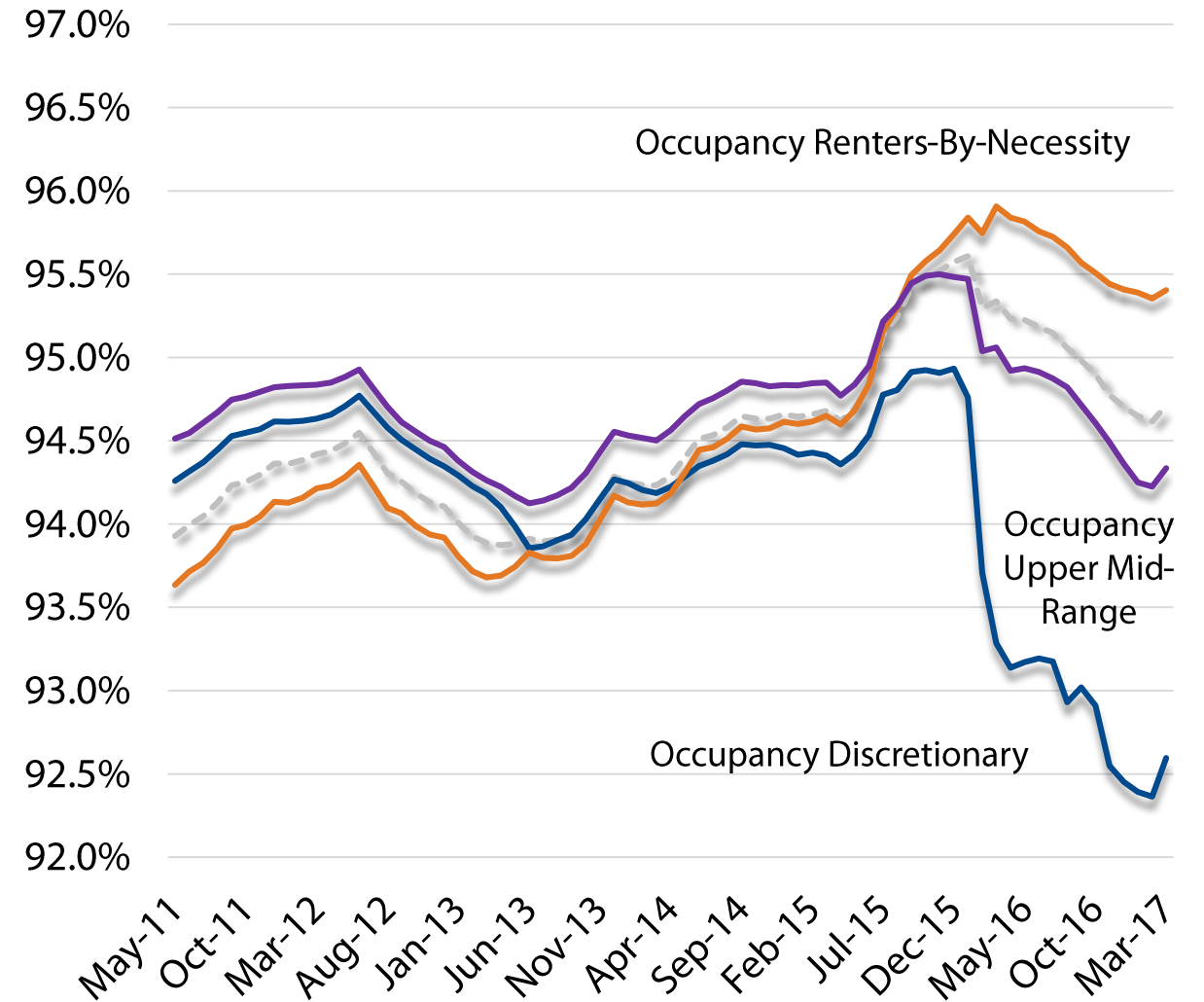
Source: Yardi® Matrix

Rent Growth and Occupancy Have Crested

Year-over-Year Rent Growth, Current Month



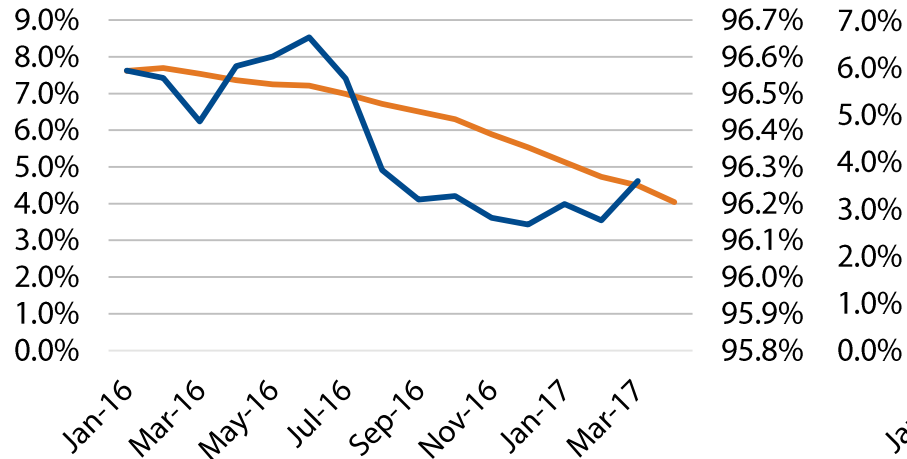
Occupancy Rate by Asset Class



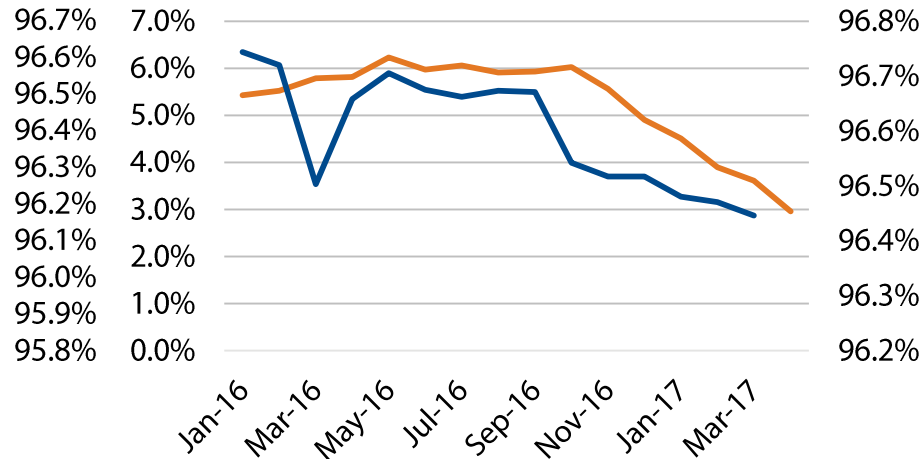
Source: Yardi®Matrix

Rent Growth and Occupancy: California

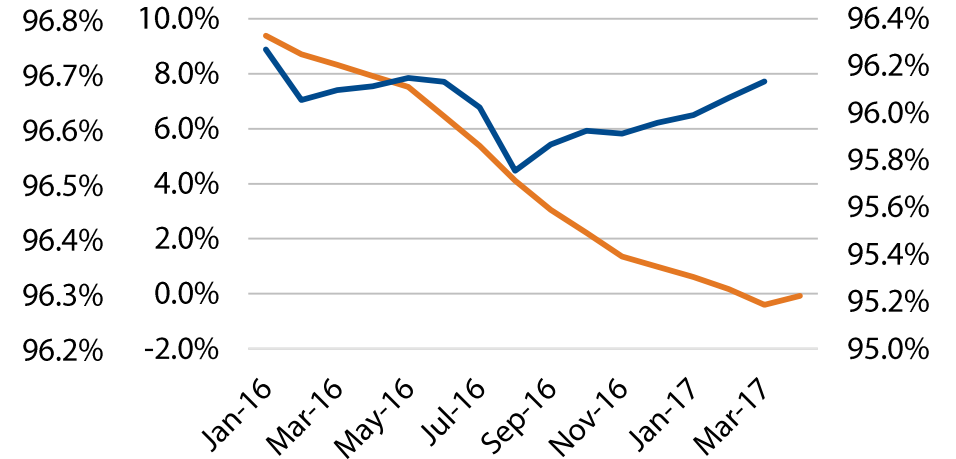
Los Angeles



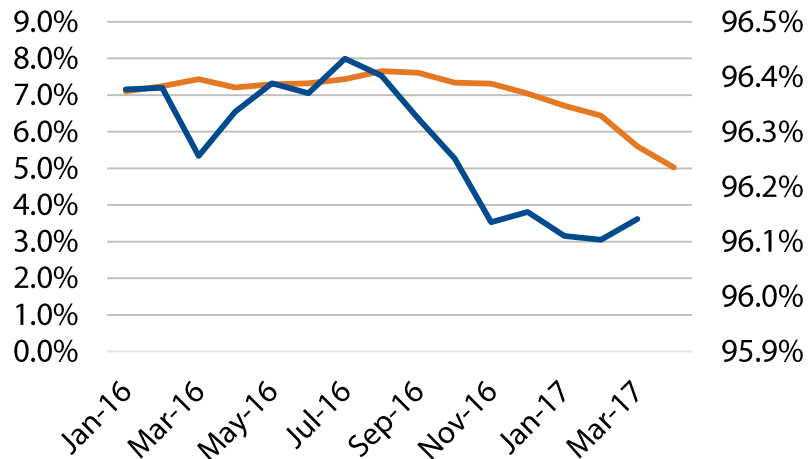
Orange County



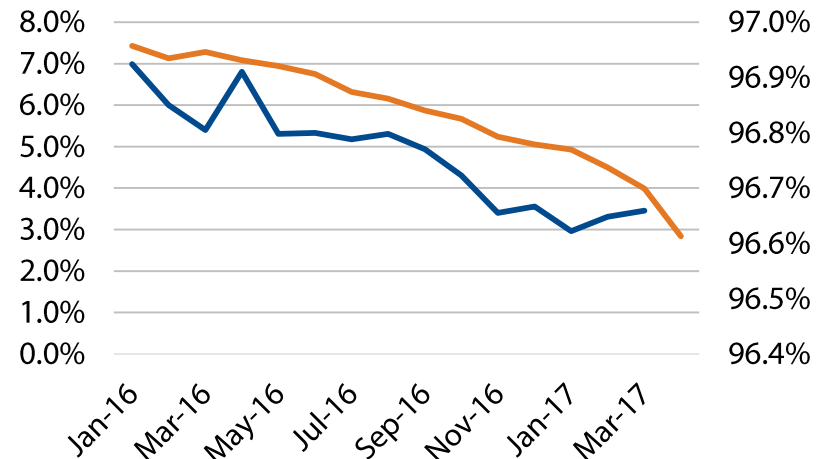
San Francisco



Inland Empire

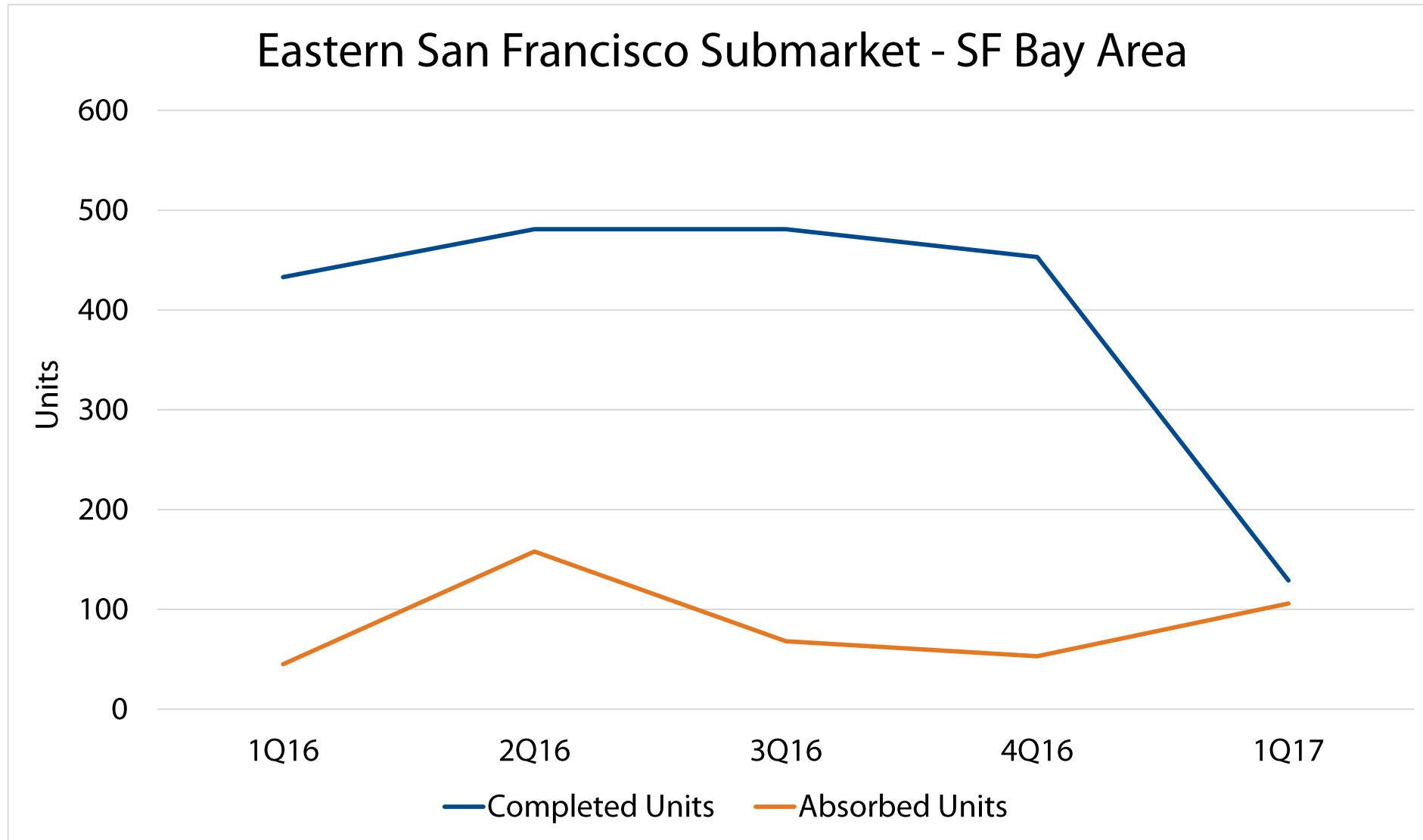


San Diego



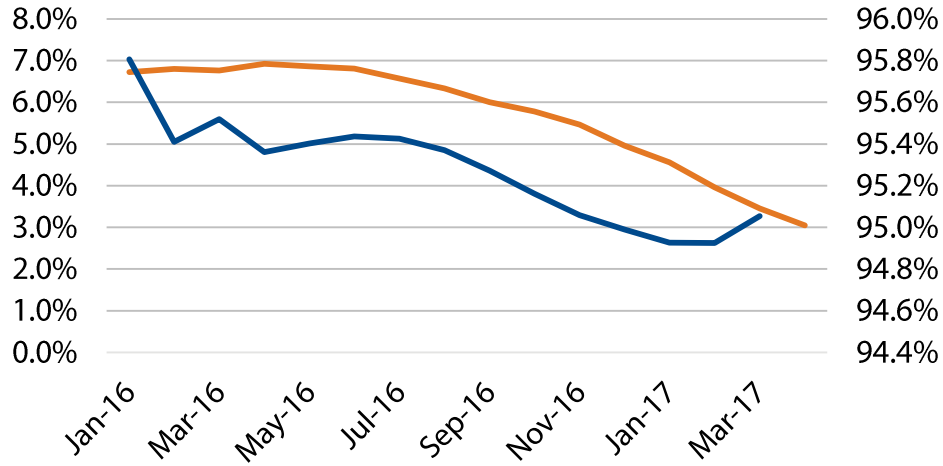
— Year-Over-Year (MTH) Rent Growth — Overall Occupancy Rate

Pre-Lease Occupancy Analysis

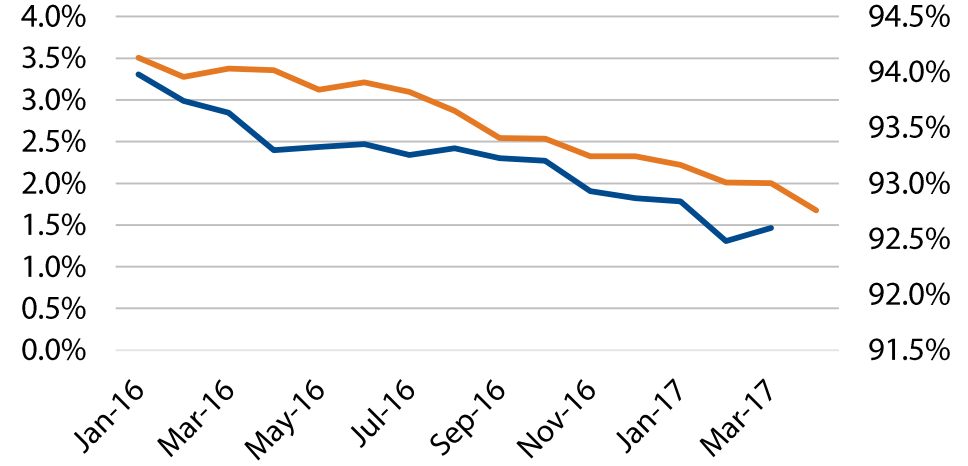


Rent Growth and Occupancy: Texas

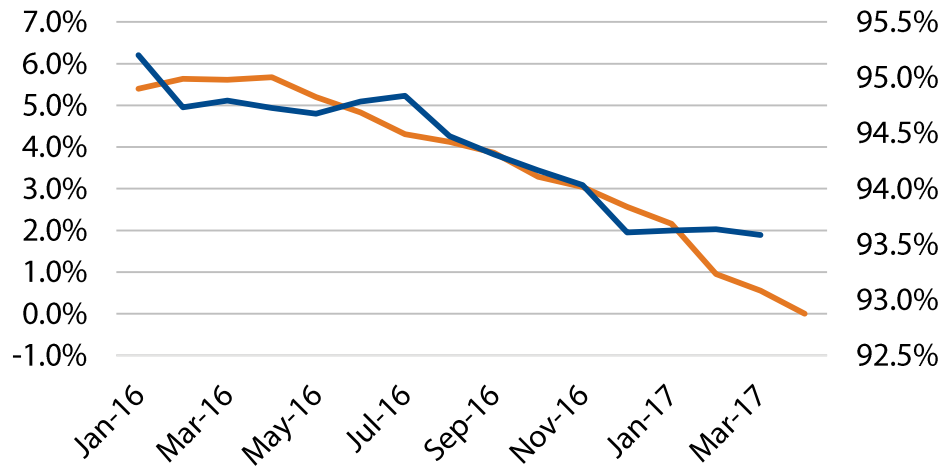
Dallas



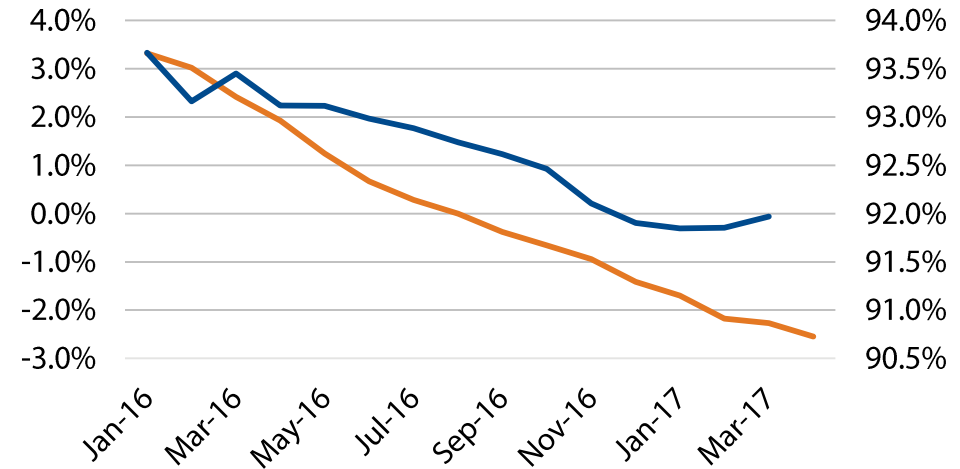
San Antonio



Austin



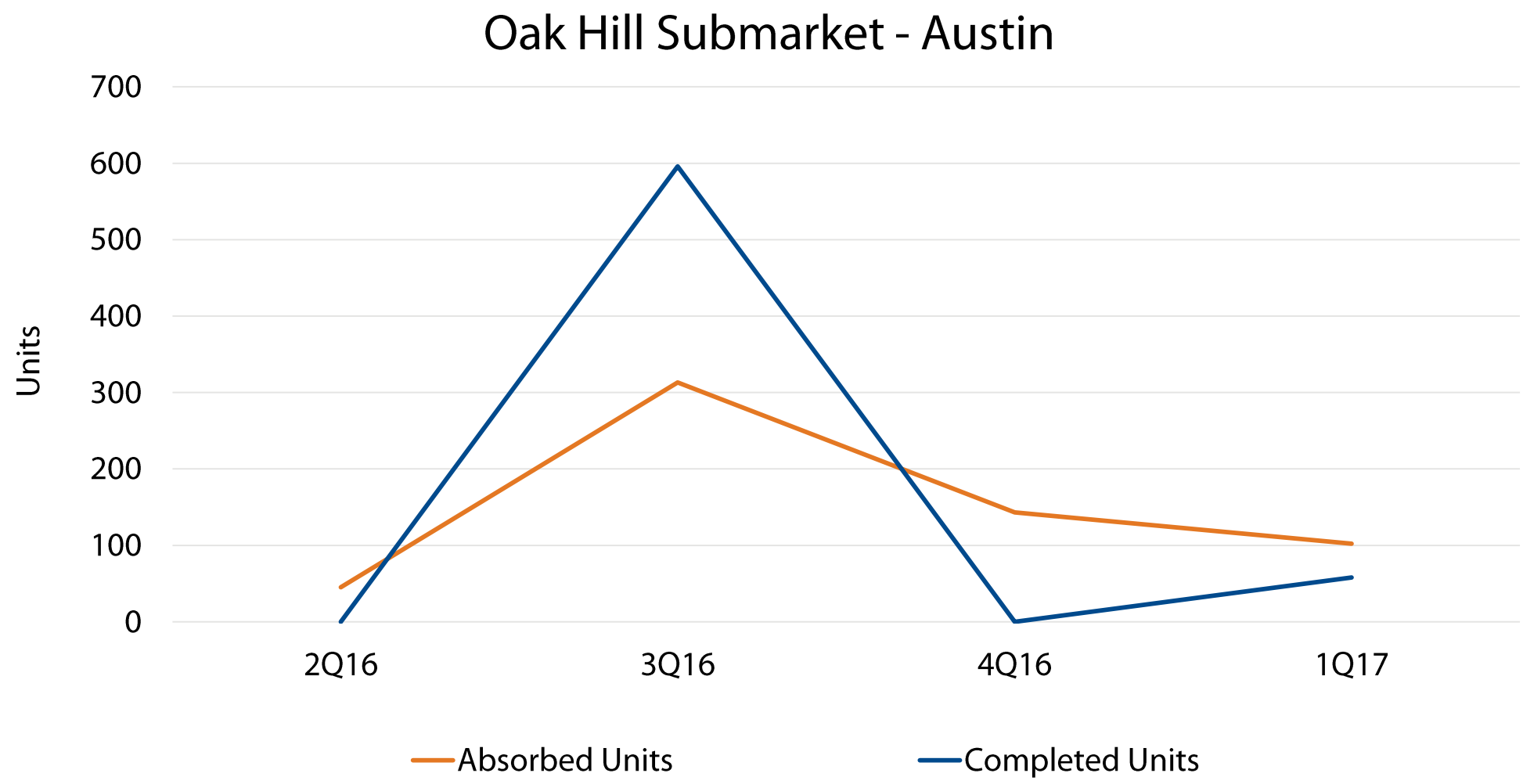
Houston



— Year-Over-Year Rent Growth

— Overall Occupancy Rate

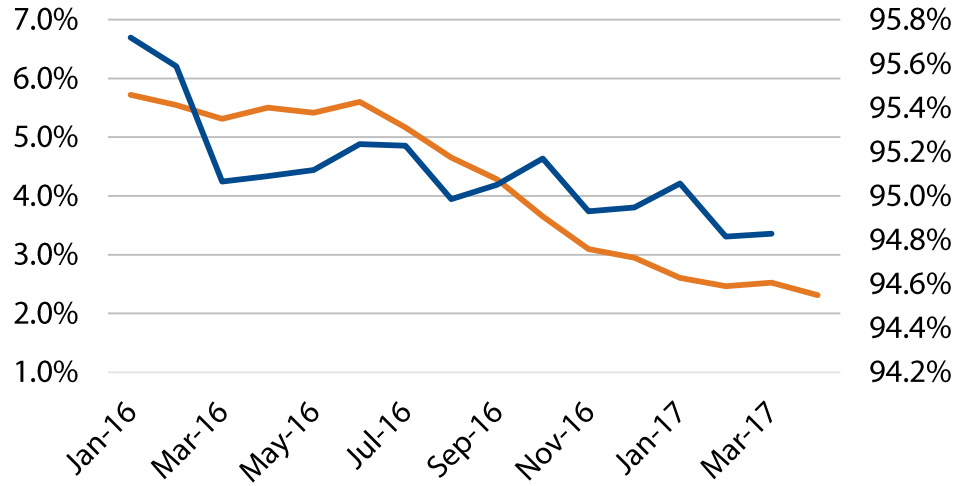
Pre-Lease Occupancy



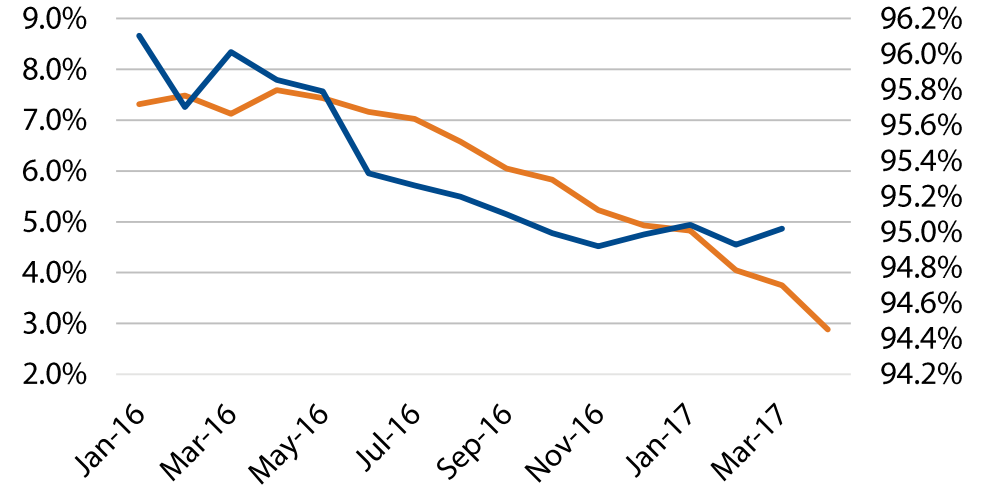
Source: Yardi® Matrix

Rent Growth and Occupancy: Florida

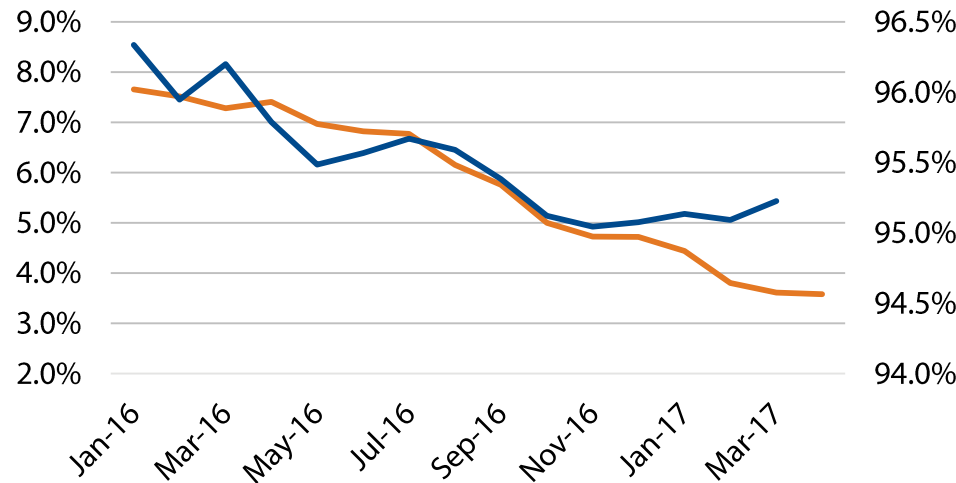
Miami



Tampa - St. Petersburg



Orlando

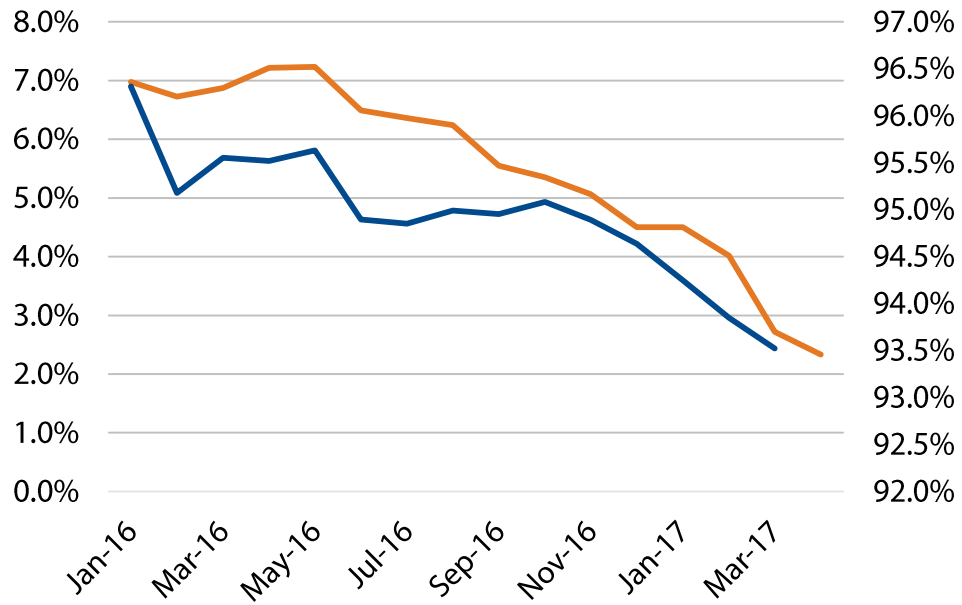


— Year-Over-Year Rent Growth

— Overall Occupancy Rate

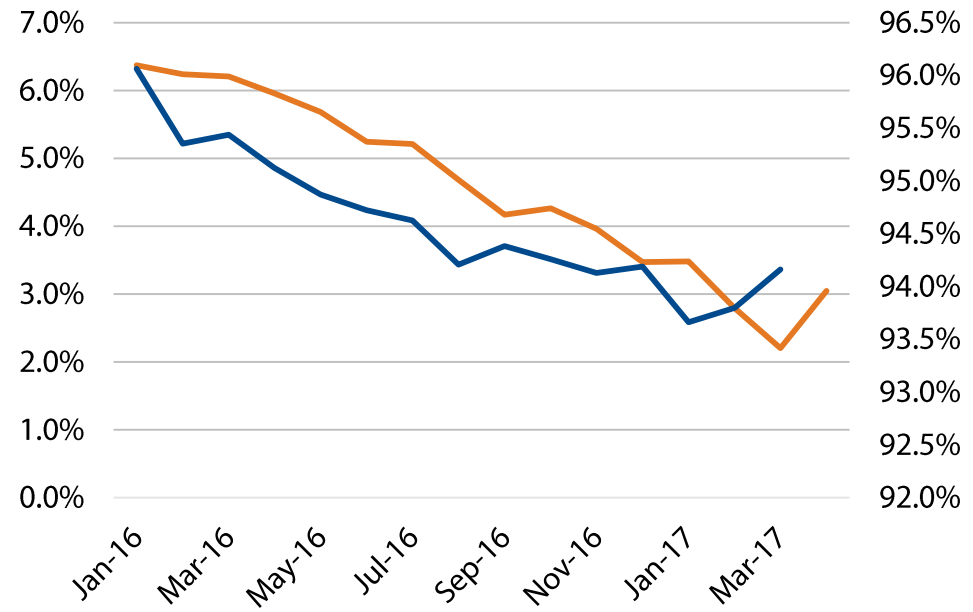
Rent Growth and Occupancy: Southeast

Nashville



— Year-Over-Year Rent Growth

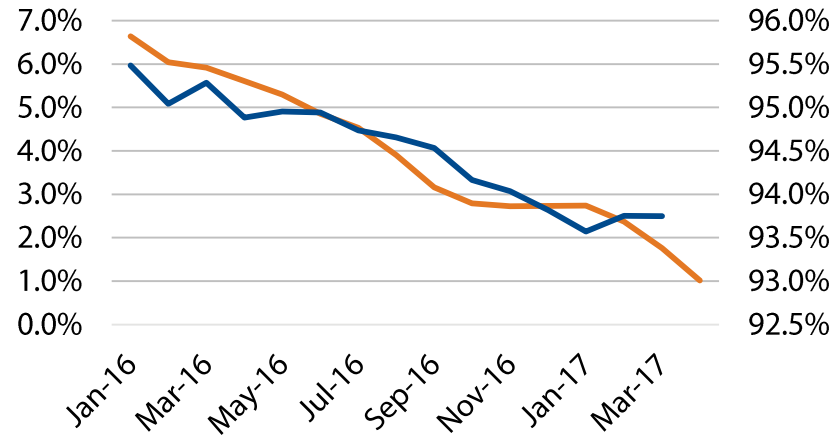
Charlotte



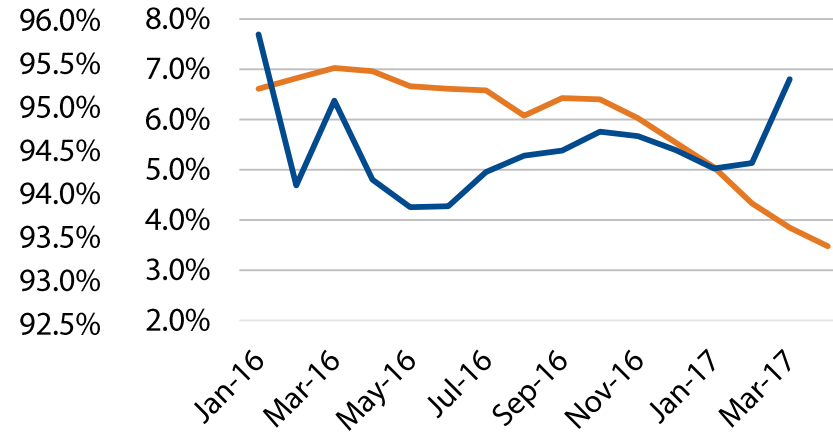
— Overall Occupancy Rate

Rent Growth and Occupancy: West

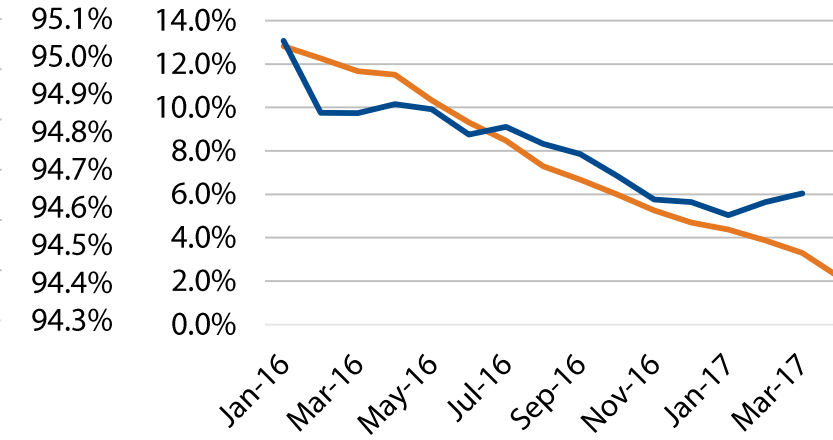
Denver



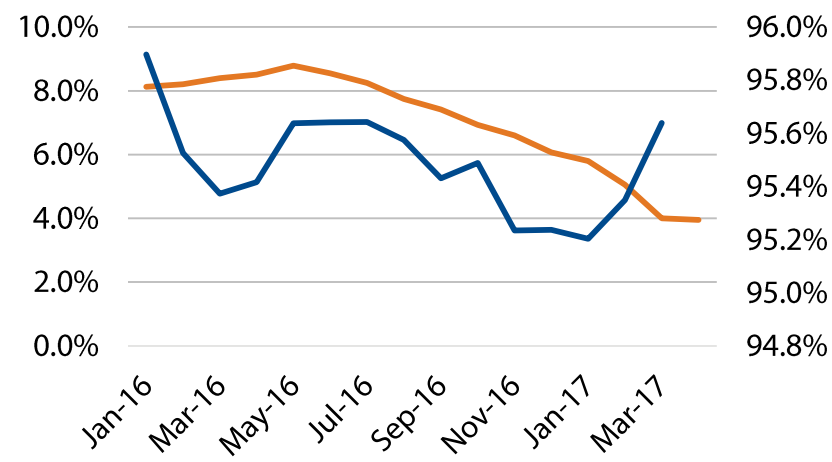
Las Vegas



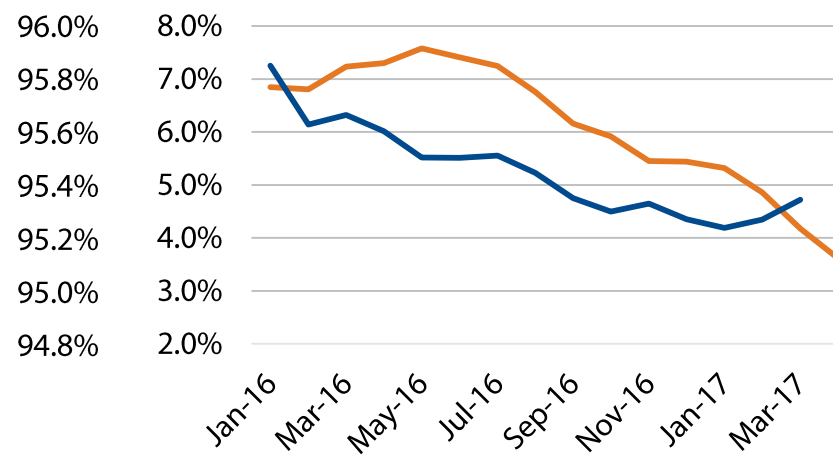
Portland



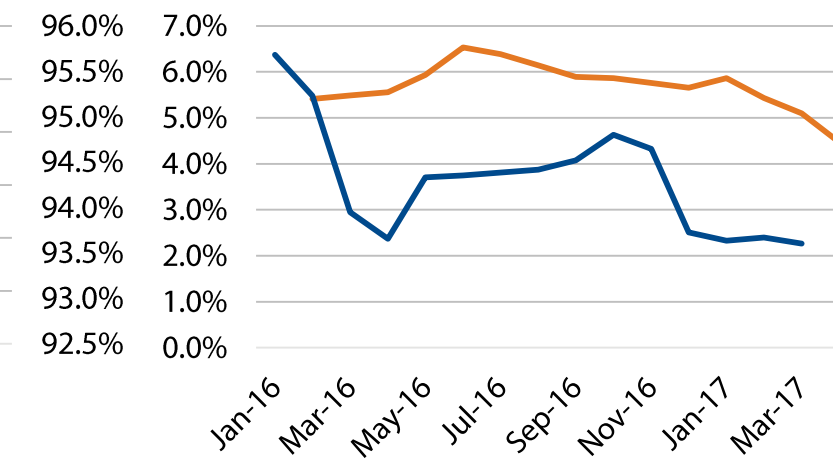
Seattle



Phoenix

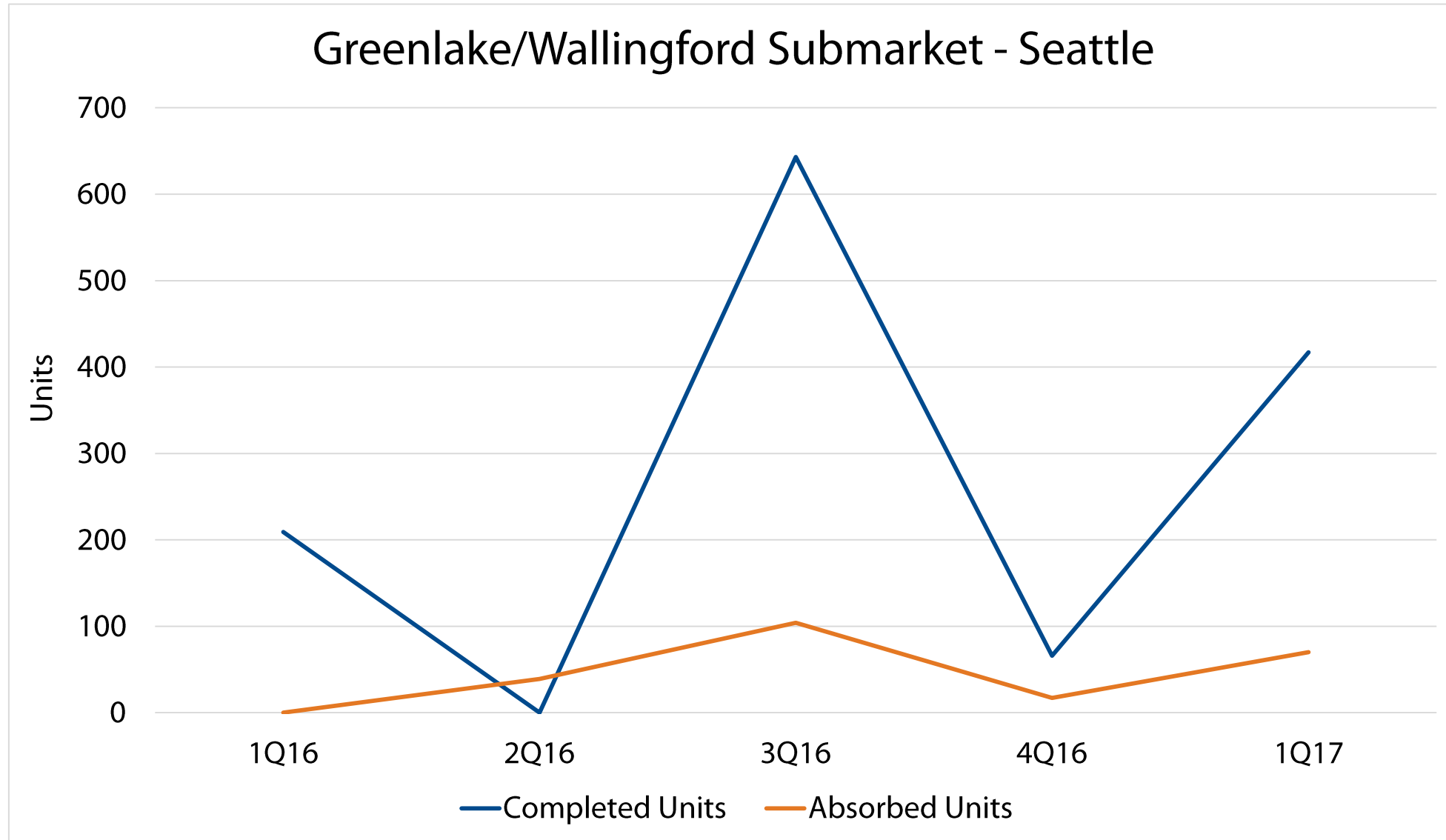


Salt Lake City

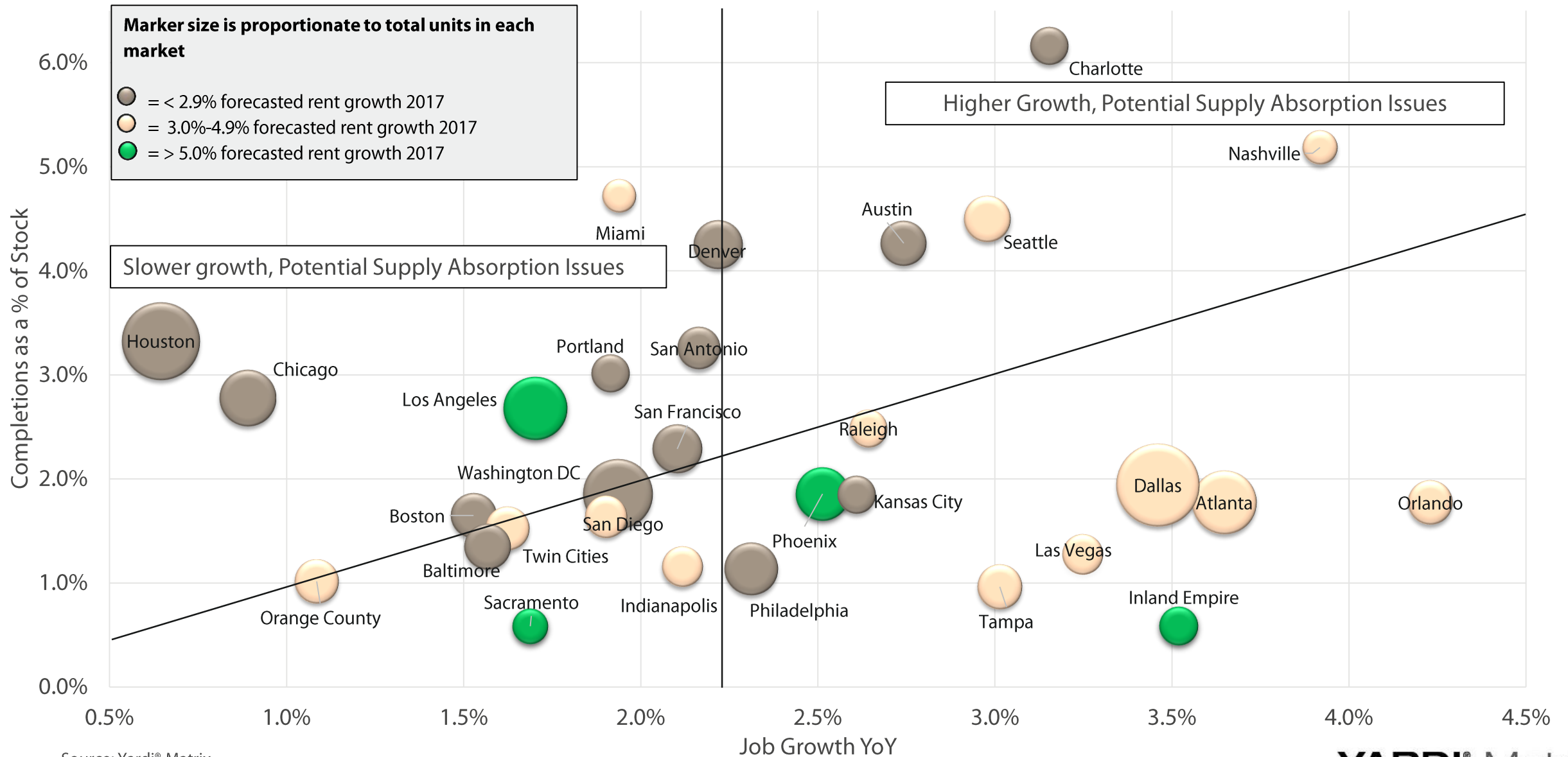


— Year-Over-Year Rent Growth — Overall Occupancy Rate

Pre-Lease Occupancy Analysis

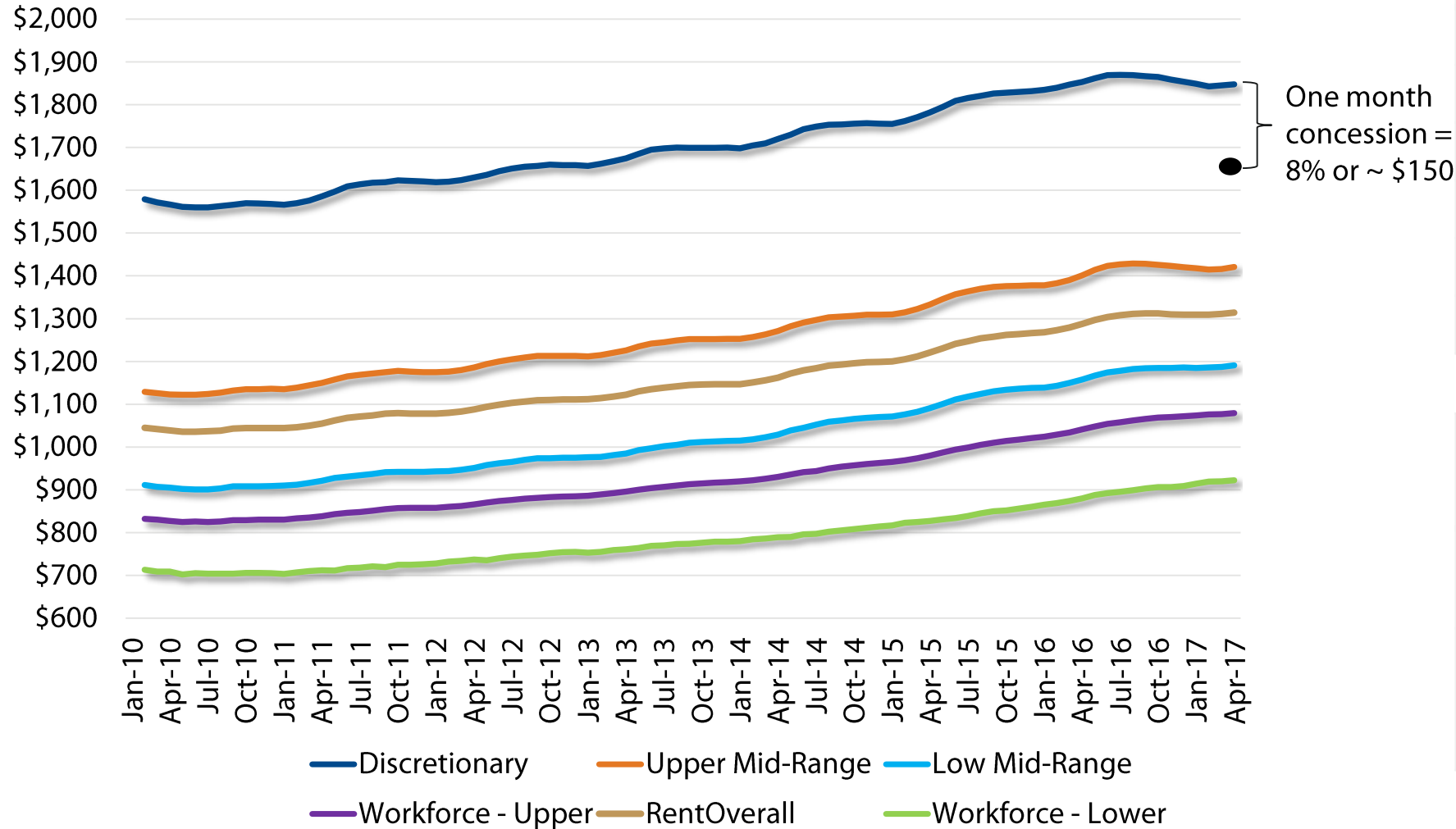


Employment vs Supply; It's Getting Bumpy



Absolute Rent Spreads by Asset Type Have Stabilized

Average Rental Rate by Asset Class

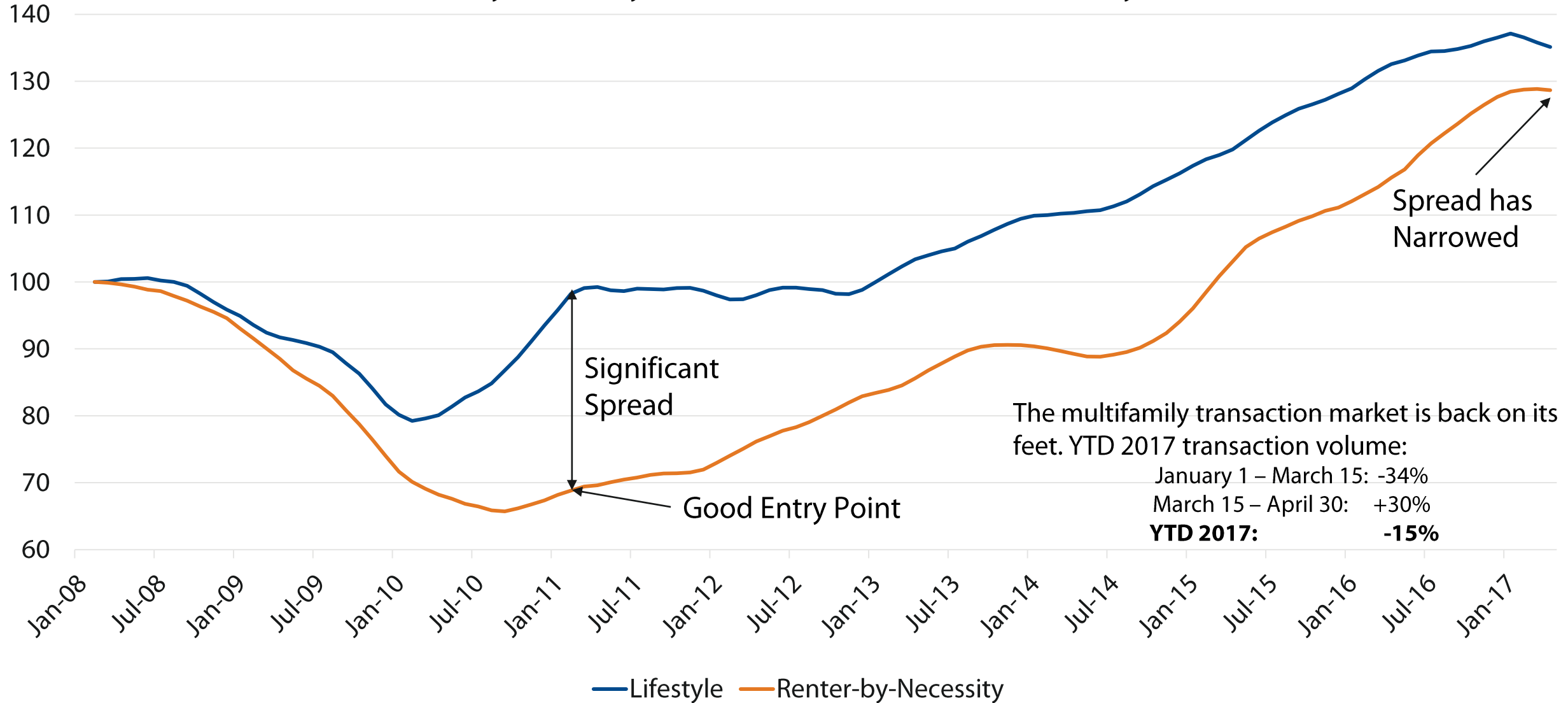


2010-2017 CAGR	
2.6%	Discretionary
3.9%	Upper Mid-Range
4.5%	Low Mid-Range
4.4%	Workforce-Upper
4.4%	Workforce-Lower
3.9%	Overall

	Apr 2010	Apr 2017
Discretionary-Upper-Mid	\$444	\$427
Discretionary-Lower-Mid	\$662	\$657

US Multifamily Sales Price Per Unit-Index 2008=100

Renter-by-Necessity Has Increased Faster, Later in the Cycle



2017 Rent Forecasts – High (5.0%+)

Market	2017 YOY YTD	2017	2018	2019
Reno	10.4%	9.5%	7.5%	6.5%
Sacramento	9.3%	8.2%	8.5%	6.5%
Colorado Springs	9.0%	8.0%	6.5%	4.0%
Tacoma	9.5%	7.5%	5.5%	5.0%
Spokane	6.2%	6.2%	5.1%	4.5%
Inland Empire	5.9%	6.1%	7.5%	6.0%
Eastern Los Angeles County	6.2%	6.0%	6.0%	5.0%
Eugene	7.2%	5.8%	6.0%	6.0%
Salt Lake City	5.2%	5.5%	5.2%	4.7%
Phoenix	4.5%	5.3%	5.0%	4.0%
Central Valley	6.1%	5.0%	5.0%	4.5%
San Fernando Valley	4.8%	5.0%	4.8%	3.8%

National

2017	2018	2019
2.6%	3.1%	2.9%

2017 Rent Forecasts – (4.0-4.9%)

Market	2017 YOY YTD	2017	2018	2019
Seattle	4.7%	4.9%	5.5%	4.5%
Fort Worth	4.4%	4.6%	4.4%	4.5%
Boise	5.0%	4.5%	3.7%	2.9%
Las Vegas	4.2%	4.5%	4.0%	3.0%
Tampa - St Petersburg	3.9%	4.5%	4.7%	4.4%
Suburban Dallas	4.0%	4.3%	4.8%	4.5%
North Central Florida	4.3%	4.3%	4.5%	4.0%
Orlando	3.9%	4.2%	4.0%	4.0%
Charleston	3.0%	4.2%	3.6%	3.8%
San Diego	4.1%	4.2%	4.0%	3.5%
Orange County	3.7%	4.1%	3.1%	3.5%
Suburban Atlanta	5.8%	4.0%	4.2%	3.8%
Suburban Twin Cities	4.5%	4.0%	3.8%	3.3%

National

2017	2018	2019
2.6%	3.1%	2.9%

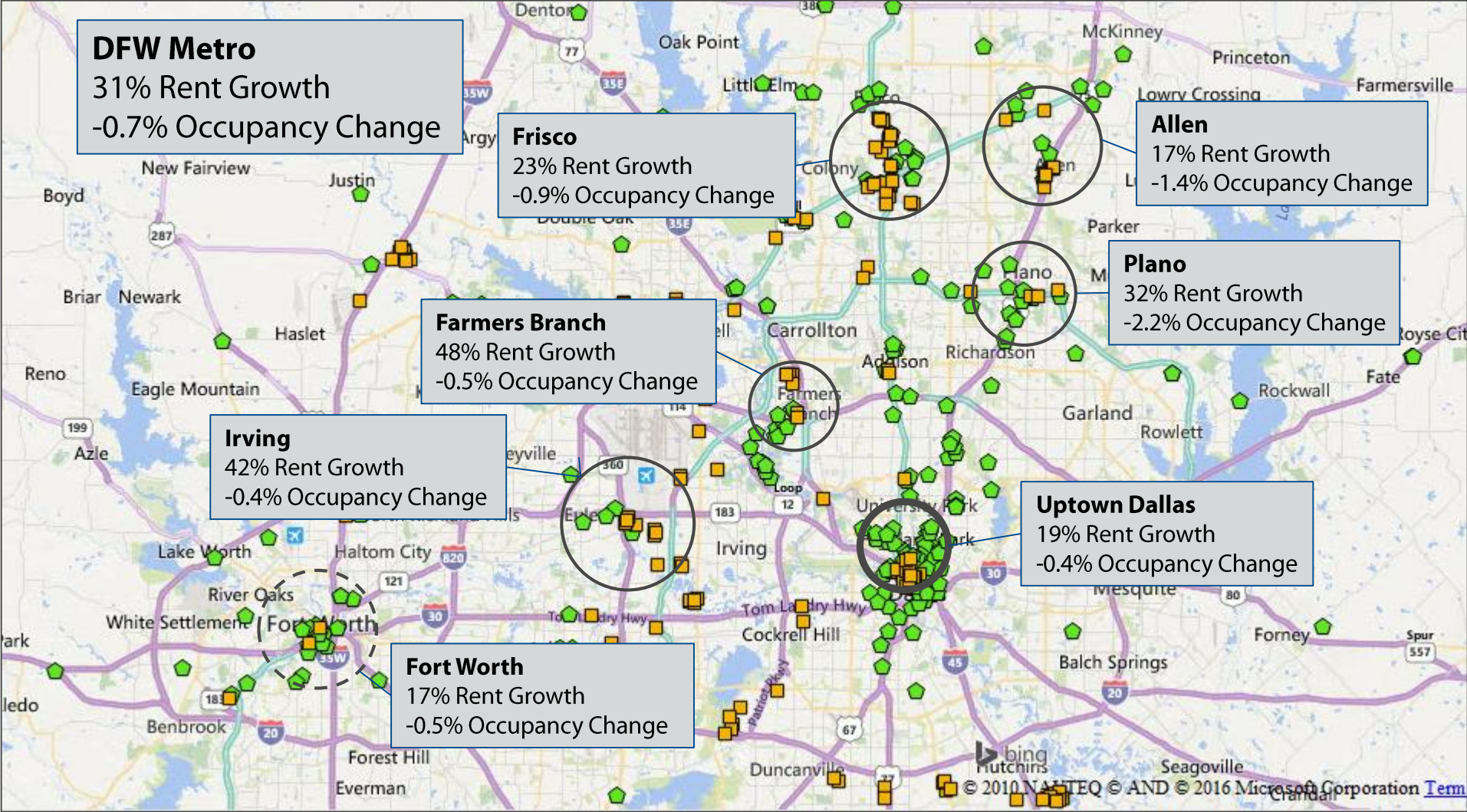
2017 Rent Forecasts – (3.0-3.9%)

Market	2017 YOY YTD	2017	2018	2019
Metro Los Angeles	3.8%	3.9%	4.5%	4.5%
North Dallas	3.1%	3.9%	4.5%	4.5%
Knoxville	2.6%	3.8%	3.5%	2.8%
Columbus	2.8%	3.8%	3.5%	3.0%
Nashville	3.4%	3.8%	3.8%	3.1%
Urban Twin Cities	3.6%	3.8%	3.3%	3.5%
West Palm Beach	2.4%	3.8%	4.0%	3.8%
Central New Jersey	3.8%	3.7%	4.0%	2.0%
White Plains	1.9%	3.7%	3.5%	3.5%
Northern New Jersey	2.5%	3.7%	4.4%	4.2%
Fort Lauderdale	2.7%	3.6%	3.8%	3.5%
Albuquerque	2.2%	3.5%	2.7%	2.8%
Louisville	2.0%	3.5%	3.0%	2.6%
Greenville	2.3%	3.5%	3.5%	3.2%
Detroit	4.3%	3.4%	3.0%	2.7%
Lansing - Ann Arbor	3.0%	3.4%	3.1%	2.6%
Miami	2.7%	3.3%	4.8%	4.5%
Tucson	3.4%	3.3%	3.5%	3.8%
Jacksonville	2.7%	3.1%	3.0%	2.9%
Urban Atlanta	2.7%	3.1%	4.0%	3.5%
Indianapolis	3.1%	3.0%	4.0%	4.0%
Buffalo	1.9%	3.0%	2.8%	2.5%
Southwest Florida Coast	3.1%	3.0%	2.9%	2.5%
Triad	3.1%	3.0%	2.5%	1.0%
Raleigh - Durham	3.5%	3.0%	3.9%	3.5%

National

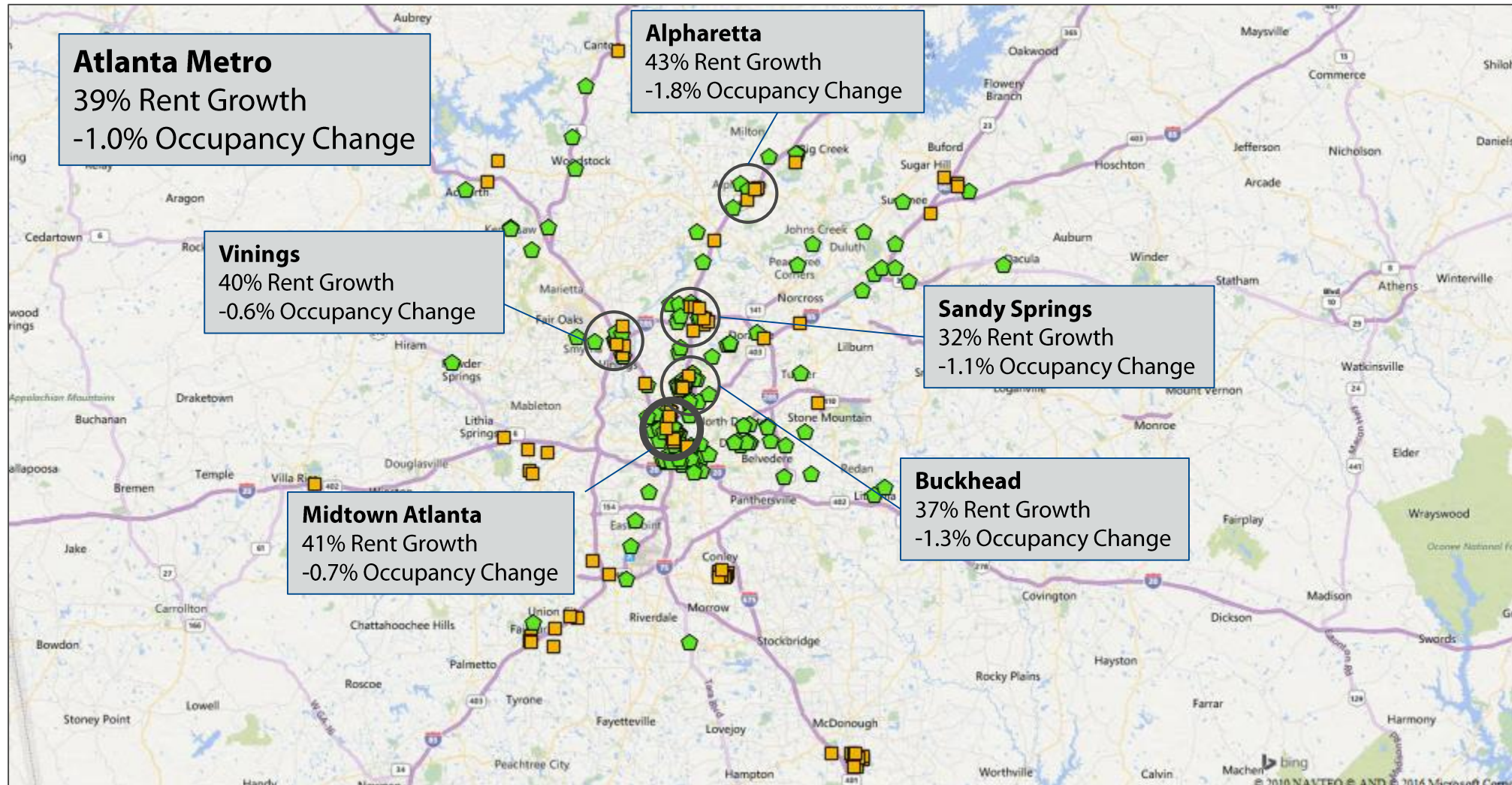
2017	2018	2019
2.6%	3.1%	2.9%

Dallas – Fort Worth – Intellectual Capital Nodes



* Rent growth based on April 2012 through April 2017
 * Change in occupancy based on March 2016 through March 2017

Atlanta – Intellectual Capital Nodes



* Rent growth based on April 2012 through April 2017

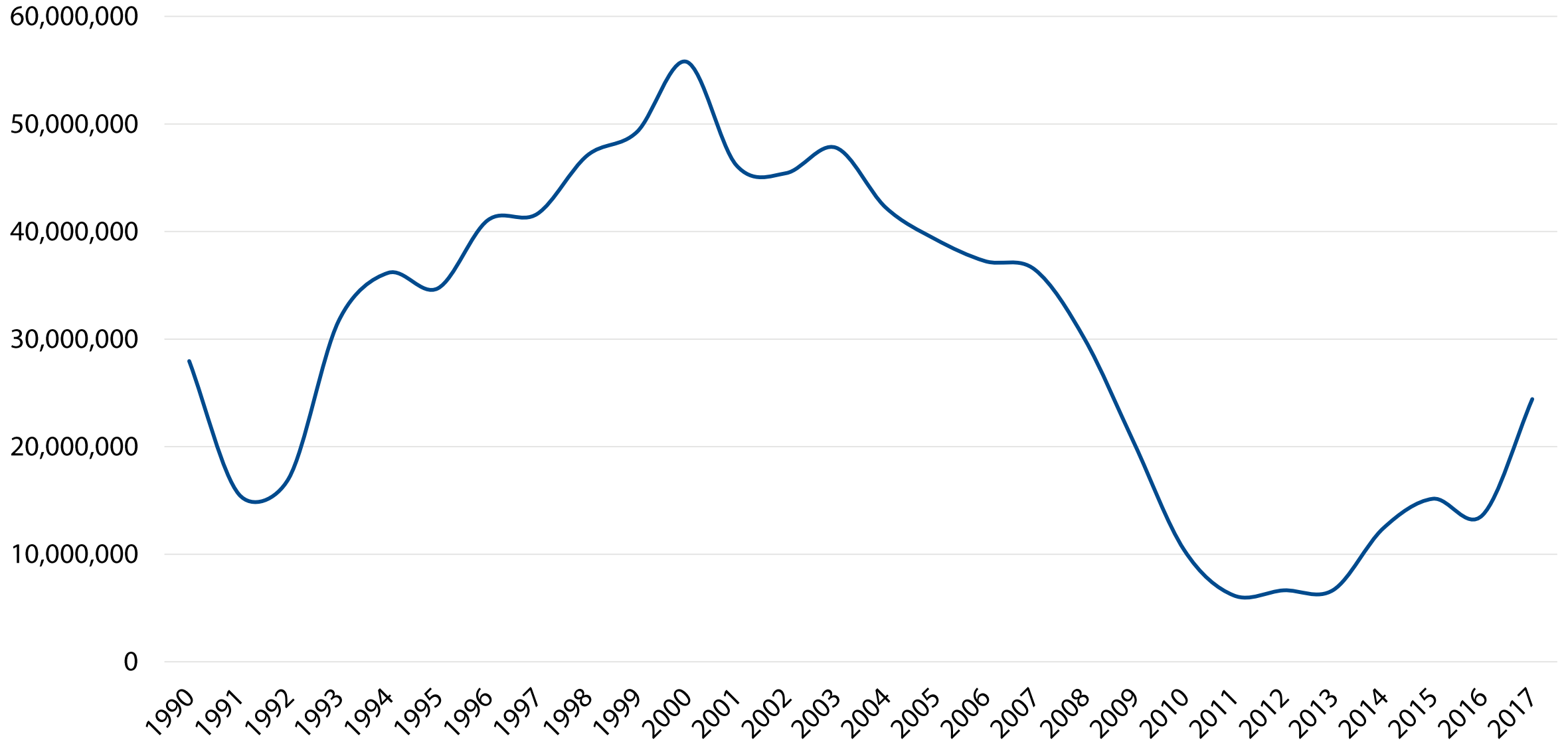
* Change in occupancy based on March 2016 through March 2017

Office Vacancies and Rent Trends

- Office lagged the multifamily sector and is still absorbing space, with limited new supply

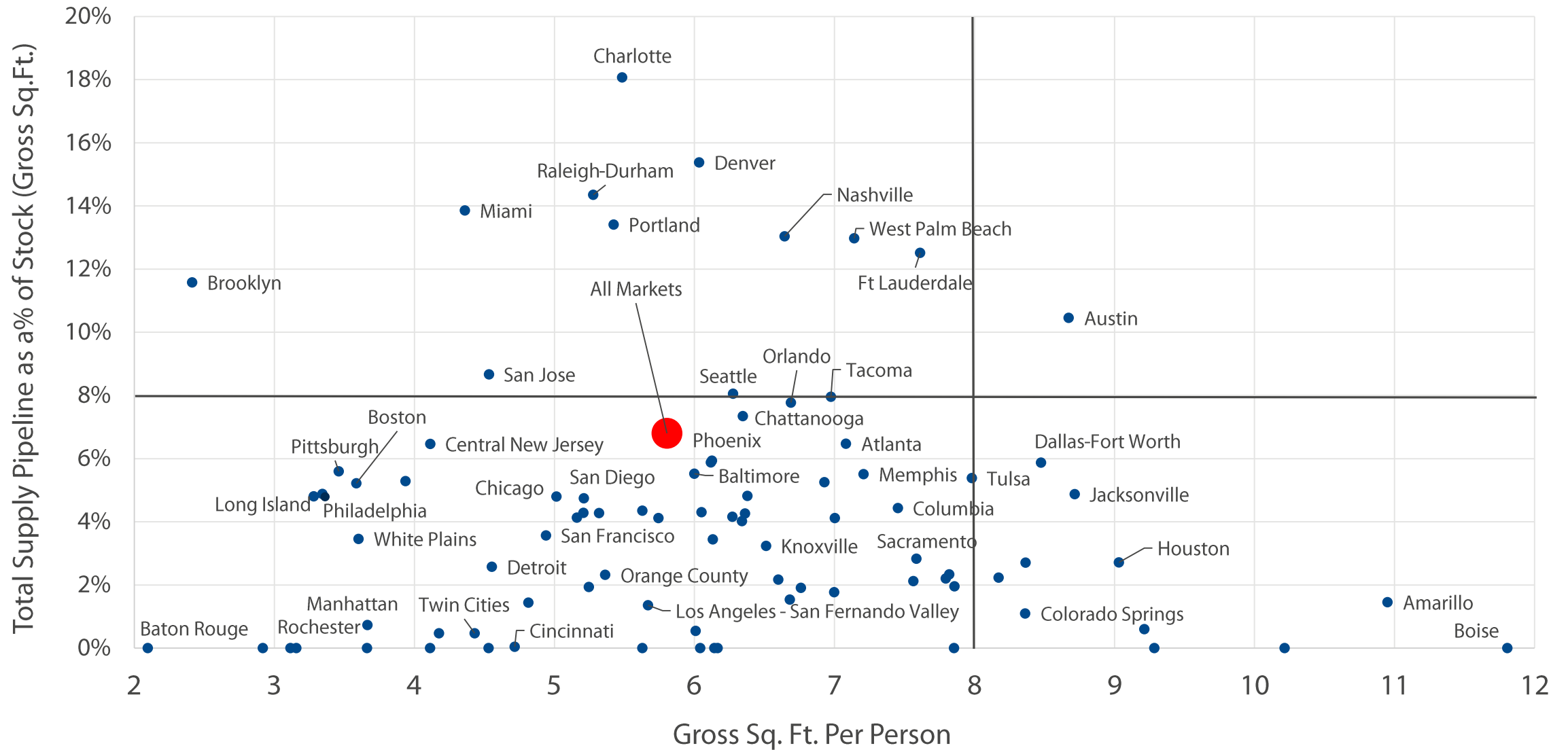
Metro	Office: Vacancy	Office: Asking Rent Growth	Office: New Supply % of Stock
Los Angeles	12.1%	4.9%	3.8%
Orange County	10.0%	5.8%	2.5%
San Diego	10.7%	0.5%	1.1%
Inland Empire	15.6%	1.8%	0.8%
San Francisco	7.2%	5.1%	6.6%
Bay Area (East Bay and South Bay)	11.6%	6.4%	7.0%
Phoenix	16.1%	5.9%	1.3%
Atlanta	14.1%	2.7%	3.1%
Miami	10.6%	-1.3%	3.2%
Fort Lauderdale	14.4%	-6.5%	2.3%
West Palm Beach	14.5%	4.1%	0.2%
Manhattan	7.4%	4.5%	3.8%

Self Storage Sq. Ft. of New Supply Since 1990



Source: Yardi® Matrix

Total Self Storage Supply Pipeline and Gross Sq.Ft. Per Person



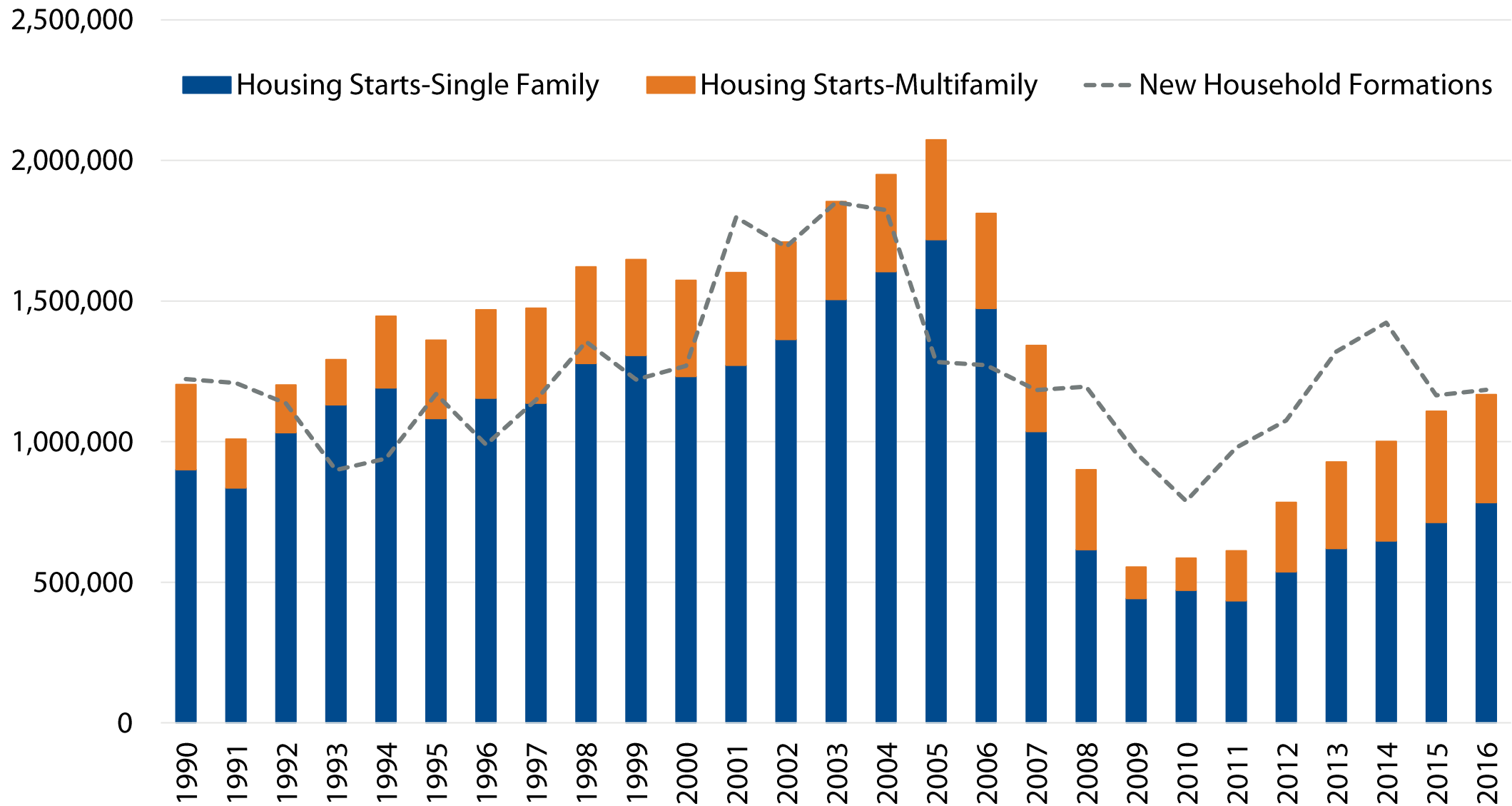
So What?- The Real Estate Economy

- US Multifamily Supply is peaking in 2017; but the next 18 months will be a bit rough
 - Development is buffeted on all sides, demand/rents, costs, financing, labor availability
- US Multifamily rent growth peaked in early '16 and has been decelerating since- with Class impacted more
- The Deceleration is broad, and most pronounced in area of accelerating supply and/or decelerating demand (Houston, San Francisco)
- Remaining bright spots are small, niche markets that draft off of larger markets- (Reno, Sacto, Colo Spgs, Tacoma)—don't expect it to last
- US Multifamily asset price growth has flattened—first time this cycle.
 - Sales volume off, but recovering...
- Sharks are circling waiting for blood in the water of soon to be broken lease-up deals—don't bet on too much of it
- Other property types beat to the tune of their own drummer-
 - Office on a slow rebound, but continuing to improve... driven by global buyers, all cash-- as an alternative to bonds
 - Industrial the belle of the e-commerce ball, for now...
 - Self Storage- starting to peak, but lots of room to run in most of US
 - Retail- discretionary lower end melting down under e-commerce pressure

The Longer View: Demographics, Migration, and Immigration



Total Housing Supply Still Lags Demand Since the Recession

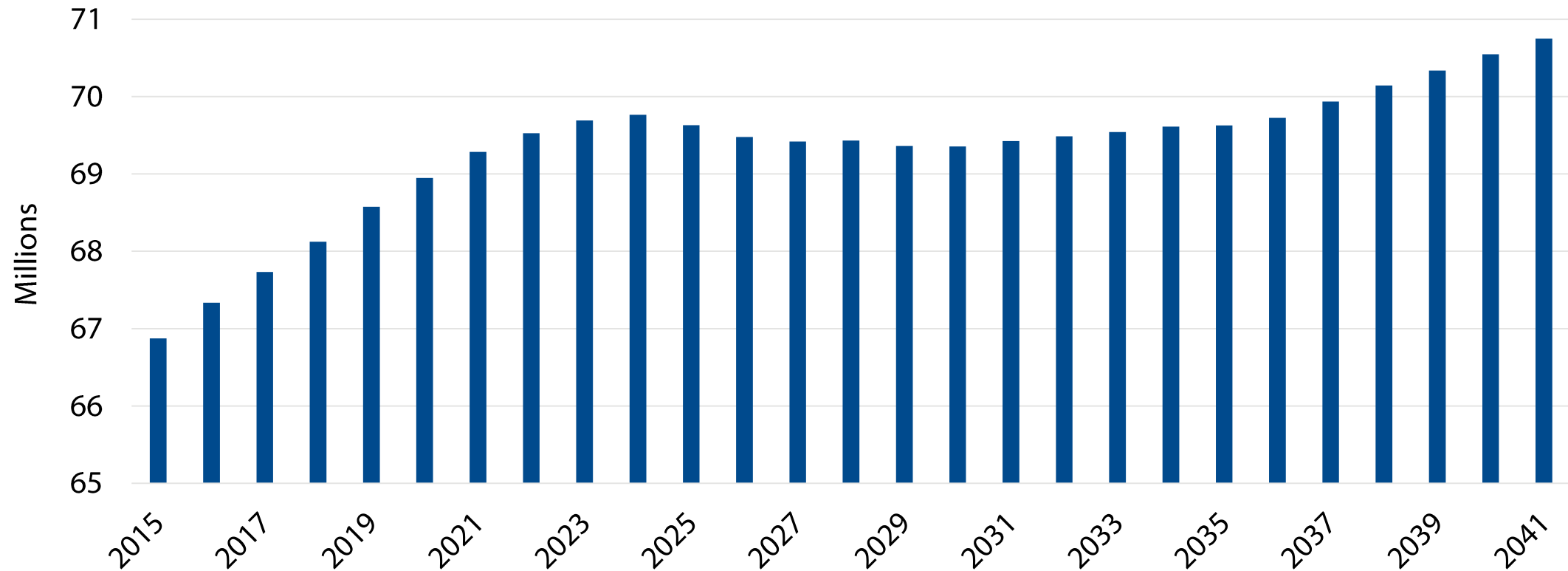


Source: Moody's Analytics; U.S. Census Bureau (BOC)

Real Estate Fundamentals: Demographics Favorable

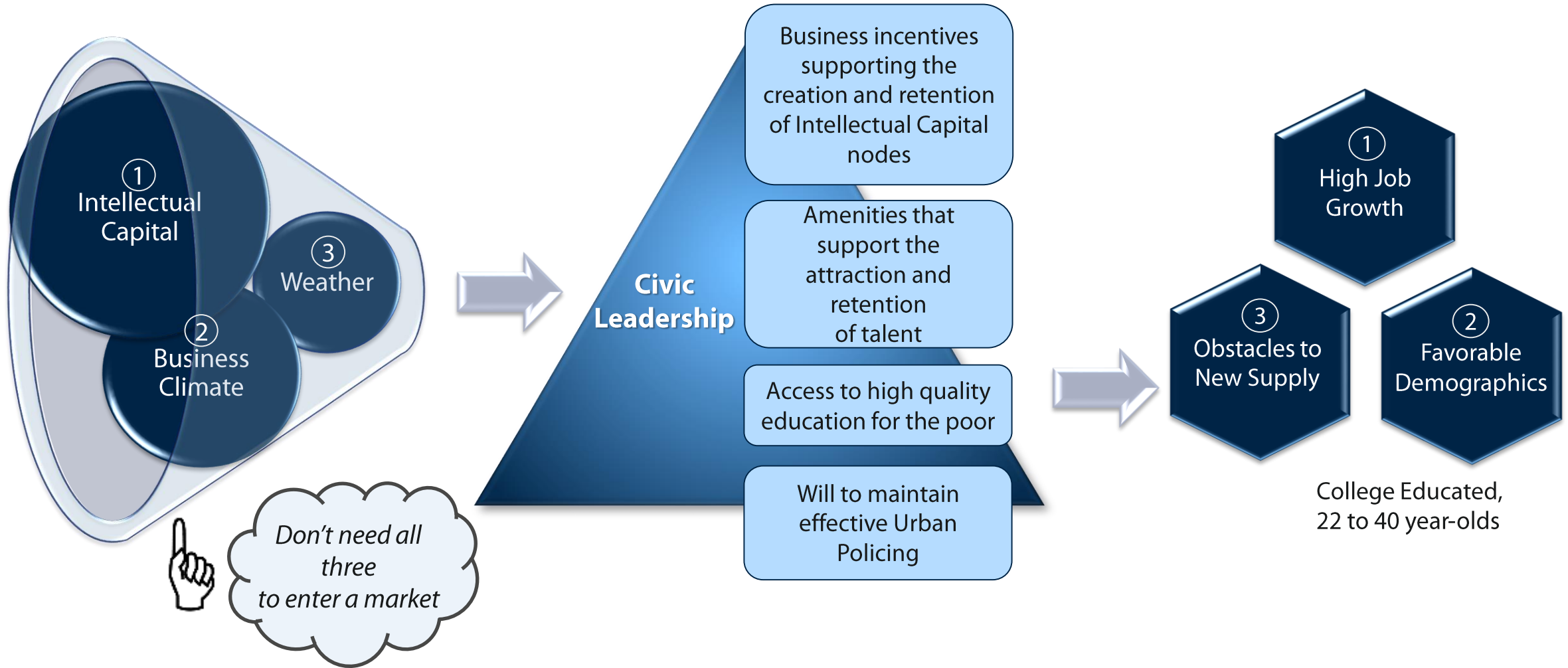
Demographics are in Multifamily's favor over the long-term, especially in the younger aged cohort...

U.S. Renter Population: Age 20-34 Cohort



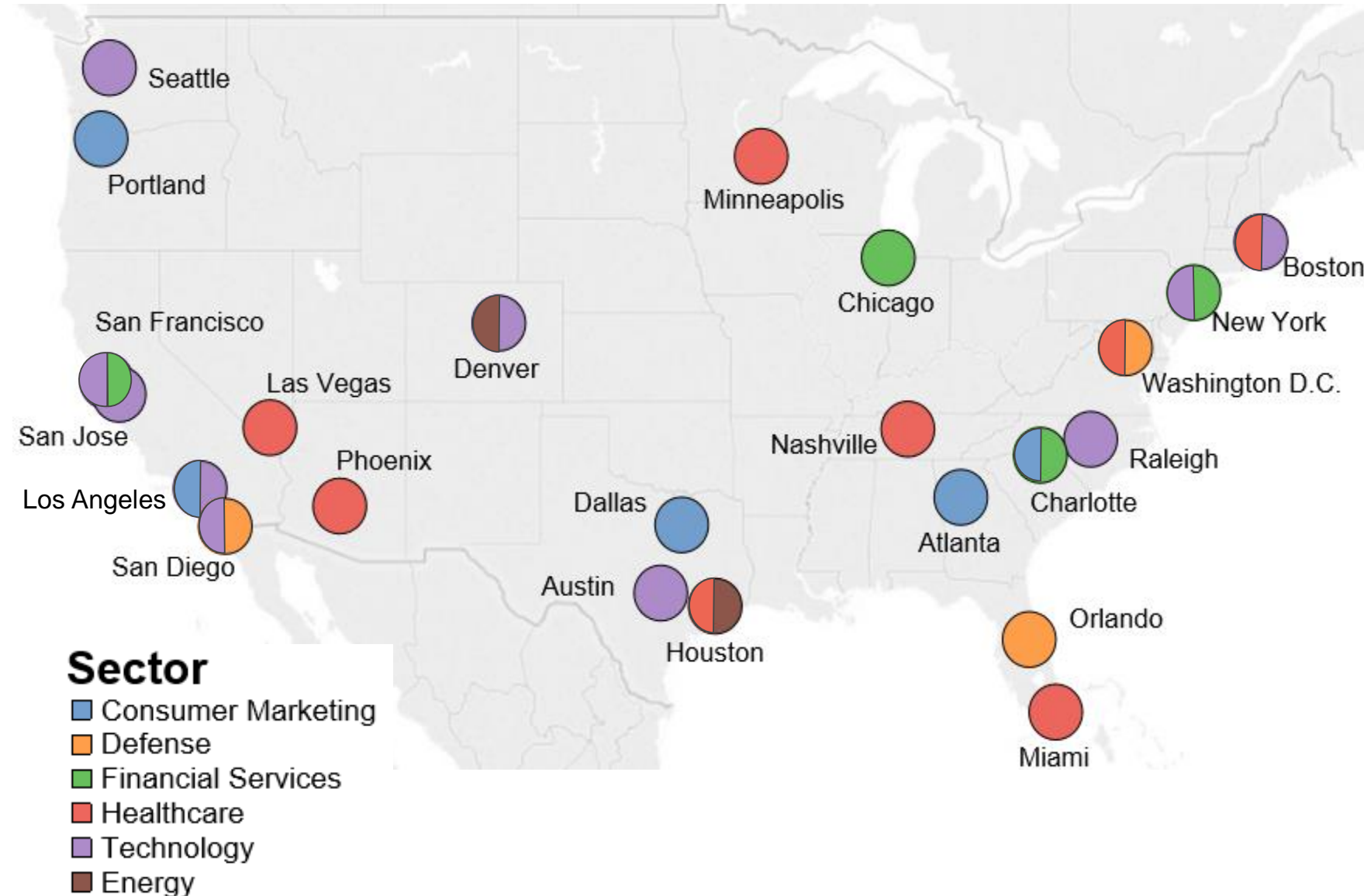
Source: U.S. Census Bureau (BOC)

The Investment Decision-Making Process



Source: National Resource Network Anchor Institutions Report, 2015; ULI Emerging Trends in Real Estate Report, 2015, 2016; Stephen Klineberg, Kinder Institute for Urban Research; Levitz, Jennifer. "Charter School Battle Heats Up." *The Wall Street Journal* 11 Oct. 2015

Major U.S. Multifamily Markets – Our “Curated” Group



- Based on population growth
- Driven heavily by growing tech, financial services, health care, universities, consumer marketing – Intellectual Capital
- Mostly in “Smile” States, with exception of a few Midwestern Markets

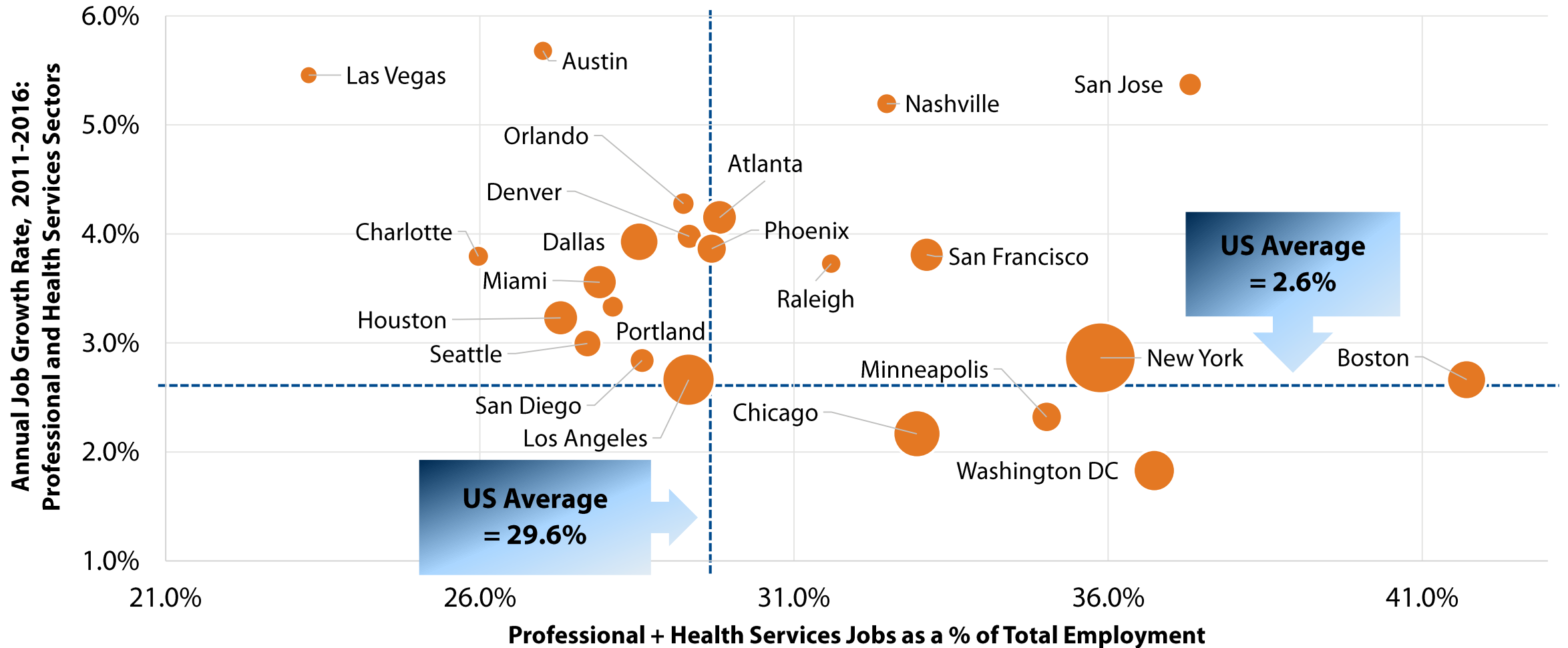
Secondary and Tertiary Investment Grade Markets List

The major markets are not the be and end all, but time is short today

Market	Industry
Boise	Tech
Salt Lake City	Tech
Kansas City	Tech/Robotics
Oklahoma City	Energy
Greenville, SC	Manufacturing
Reno, NV	Manufacturing
Colorado Springs	Aerospace/Military
Sacramento	Government/Tech
San Antonio	Healthcare
Pittsburgh	Tech
Philadelphia	Healthcare
Tampa	Healthcare

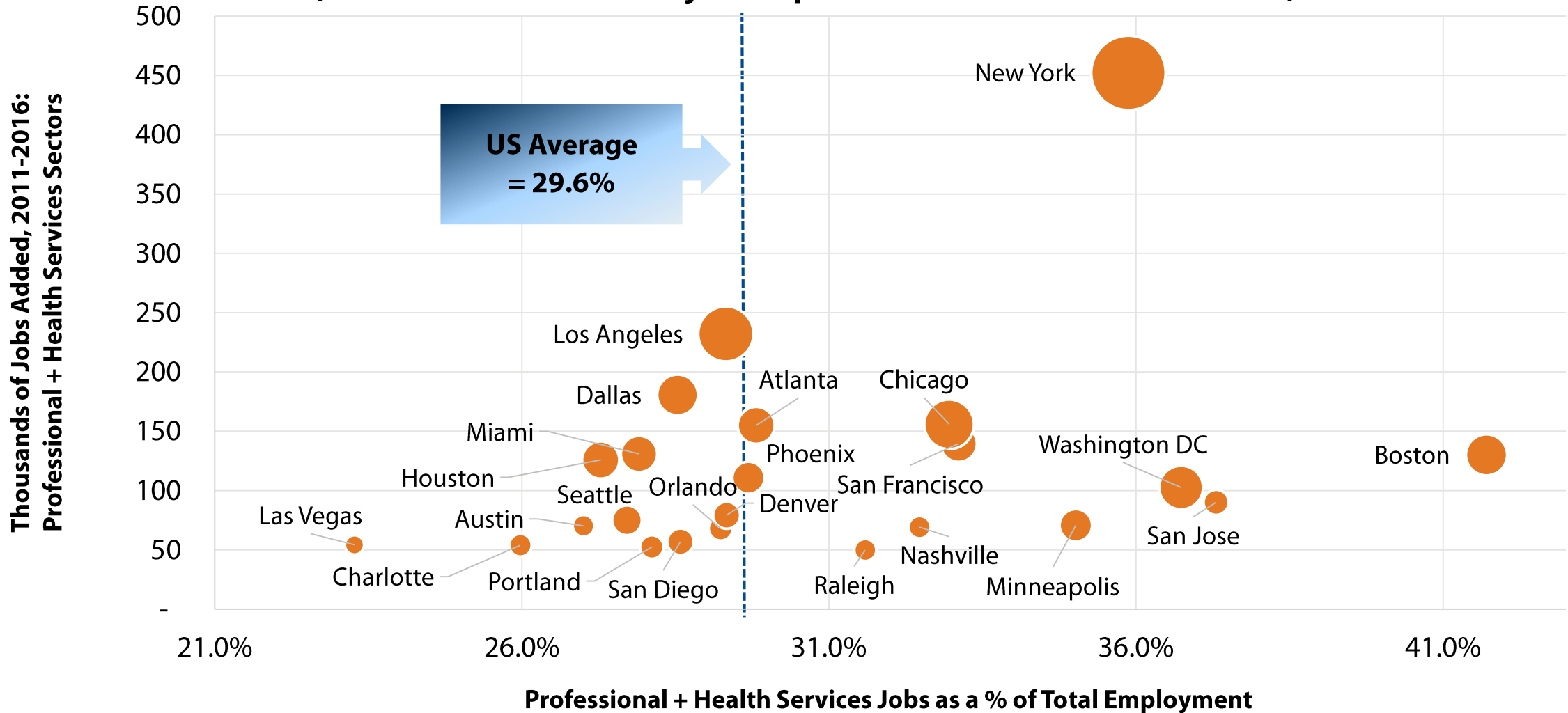
Employment Growth Rate, 2011-2016

Professional and Health Services Jobs are Driving Employment Growth *(bubble size reflects # of jobs in professional and health services)*

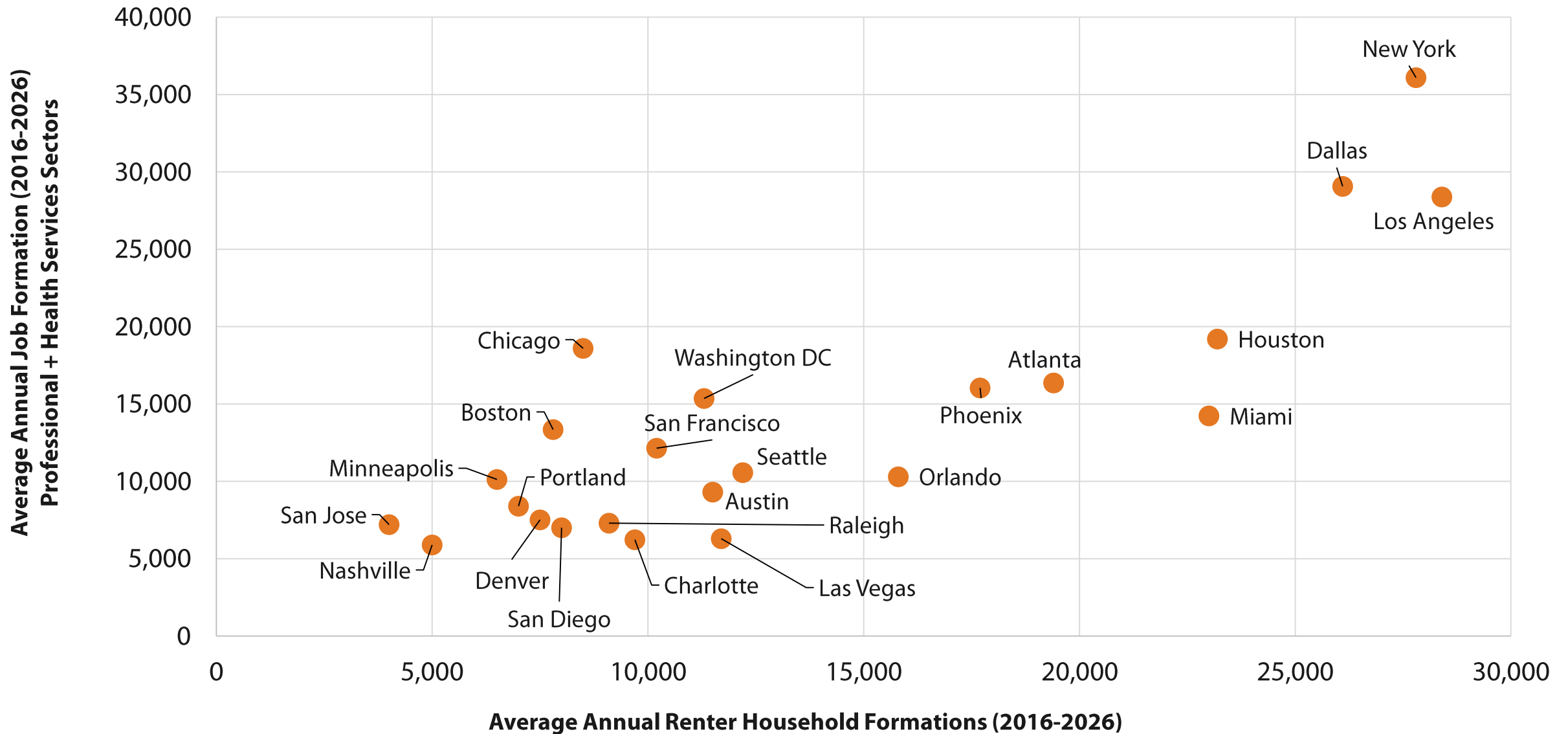


Employment Growth in Thousands of Jobs Added, 2011-2016

Professional and Health Services Jobs are Driving Employment Growth (bubble size reflects # of jobs in professional and health services)



Forecasted Job Formation vs Renter HH Formation



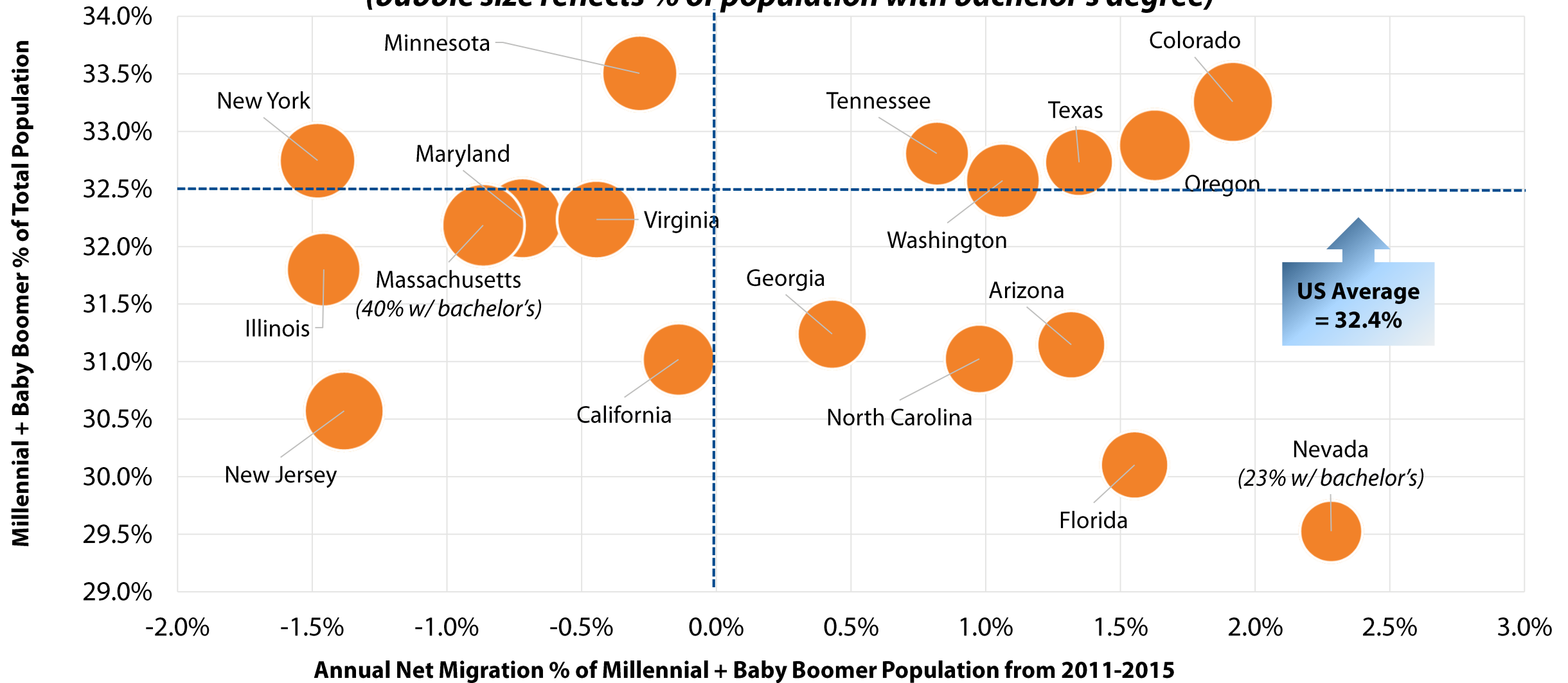
Projected Market Placement within Population Growth Cycle

Some markets' population growth are diminishing as cost/supply considerations push growth to lower cost cities; some late stage cities are accelerating, while certain markets are on a steadier growth path

Growth Diminishing	Growth Accelerating	Growth Steady	Larger Markets, Slower % Growth
San Francisco	Orlando	Dallas	New York
Bay Area	Raleigh	Atlanta	Los Angeles
Denver	Austin	Miami	Boston
	Charlotte	San Diego	Chicago
	Las Vegas	Minneapolis	Washington D.C.
	Phoenix	Houston	
		Nashville	
		Seattle	
		Portland	

Boomer and Millennial Net Migration

Millennials (age cohort 26-35) & Baby Boomers (ages 56-65) are Driving Net Migration
(bubble size reflects % of population with bachelor's degree)



Source: U.S. Census Bureau (BOC); Internal Revenue Service (IRS)

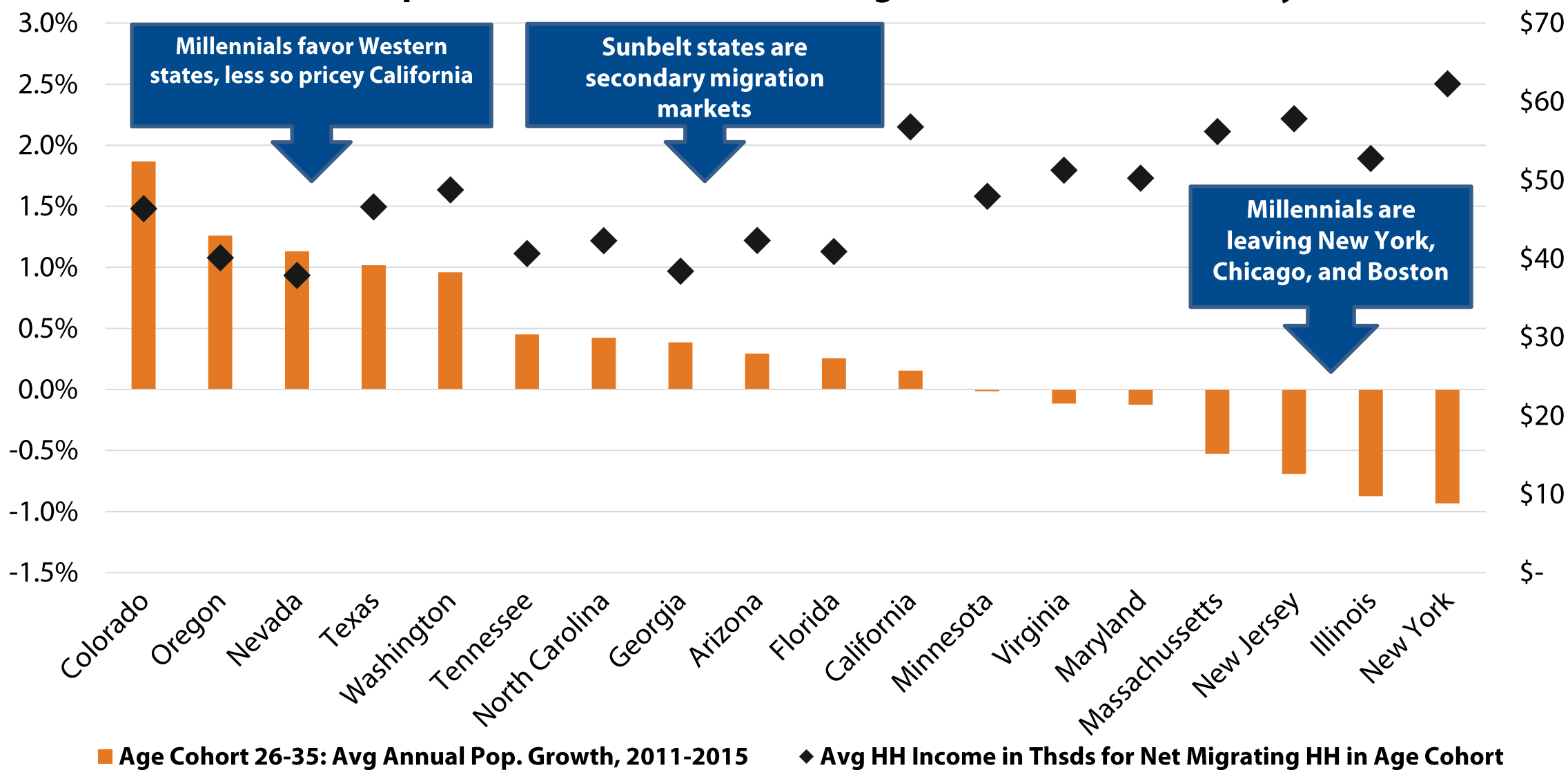
Clear Winners/Losers for Key In-Migration Groups Among States

Some markets' growth are diminishing as cost/supply considerations push growth to lower cost cities; some late stage cities are accelerating, while certain markets are on a steadier growth path

Winners	Losers
North Carolina	Massachusetts
Georgia	New York
Tennessee	New Jersey
Florida	Maryland
Texas	Virginia
Colorado	Illinois
Arizona	Minnesota
Nevada	California
Washington	
Oregon	

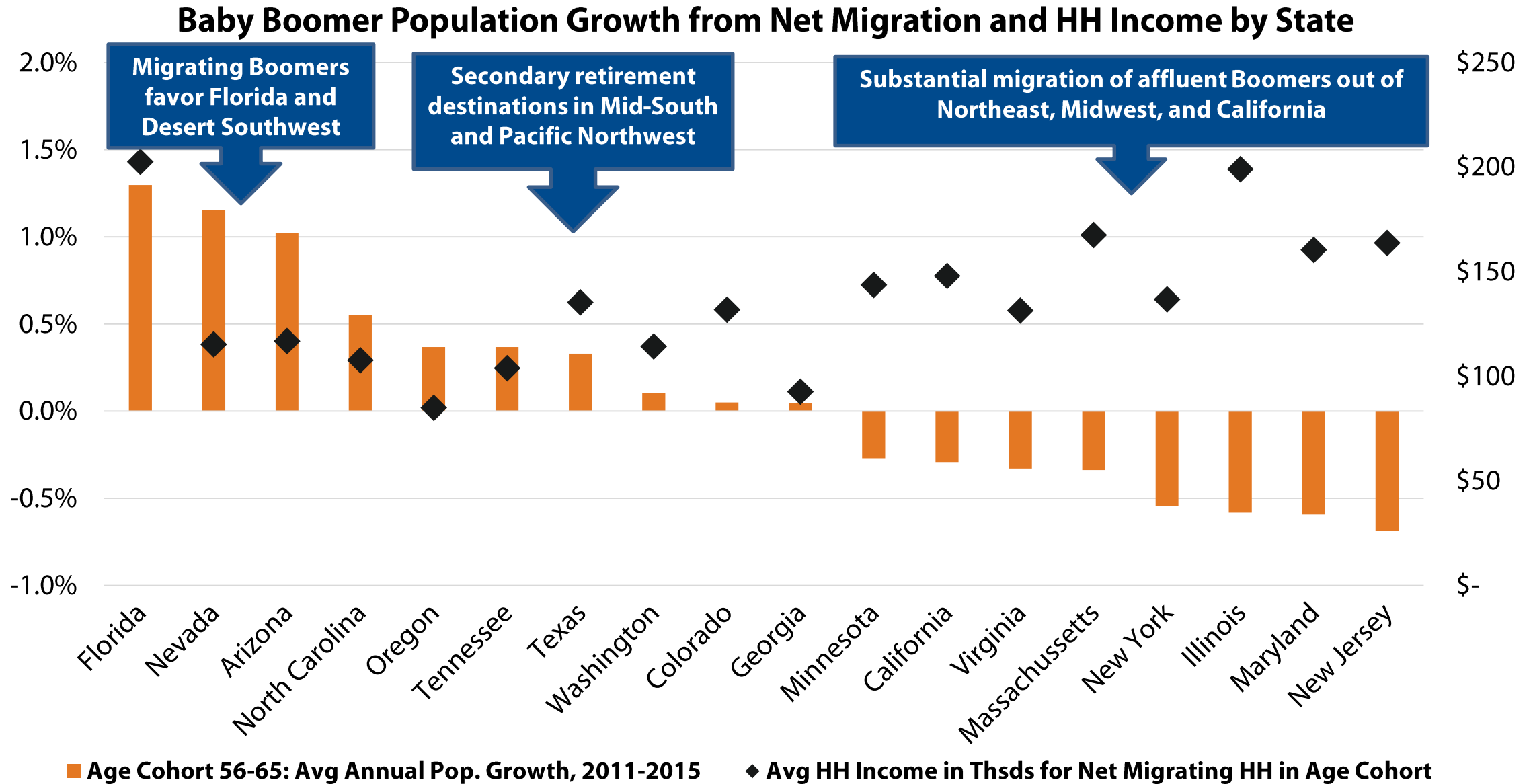
Millennial Generation Net Migration by State

Millennial Population Growth from Net Migration and HH Income by State



Source: U.S. Census Bureau (BOC); Internal Revenue Service (IRS)

Boomer Generation Net Migration By State



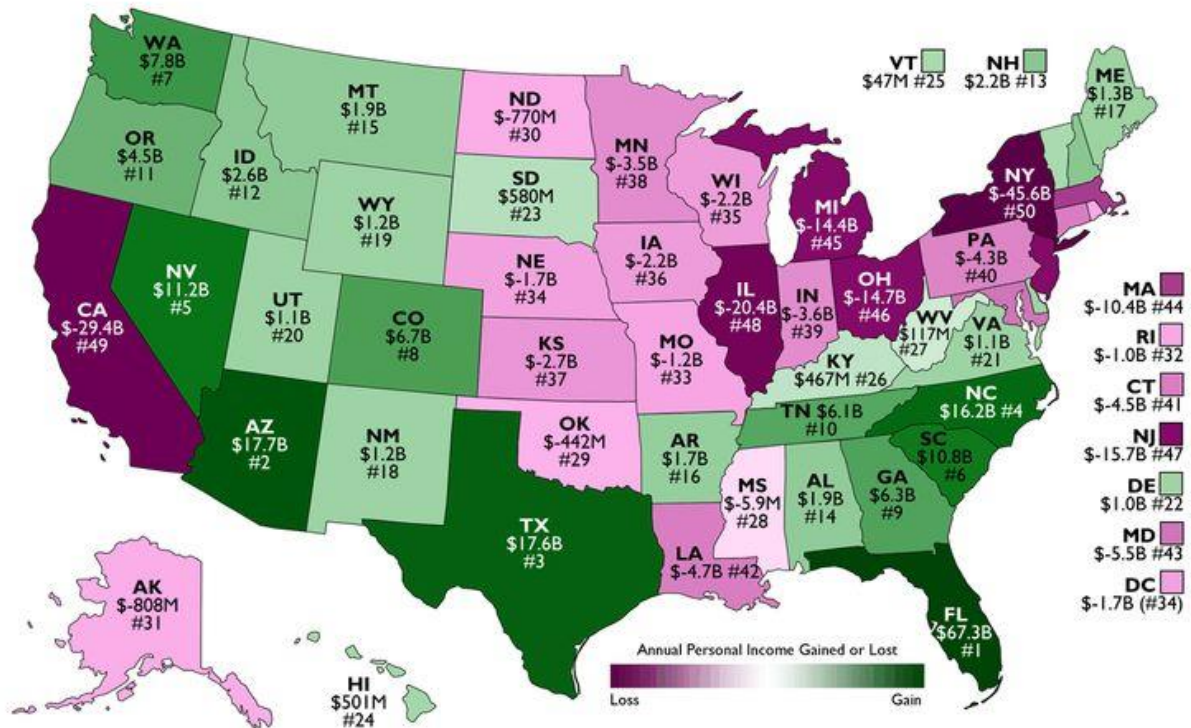
Source: U.S. Census Bureau (BOC); Internal Revenue Service (IRS)

Wealth Also Migrating Towards Secondary Markets

Retiring Boomers and mobile Millennials highlight population and income shifts

Business friendliness and relative affordability common among growing markets

Migration of Personal Incomes Between States, 2000-2010

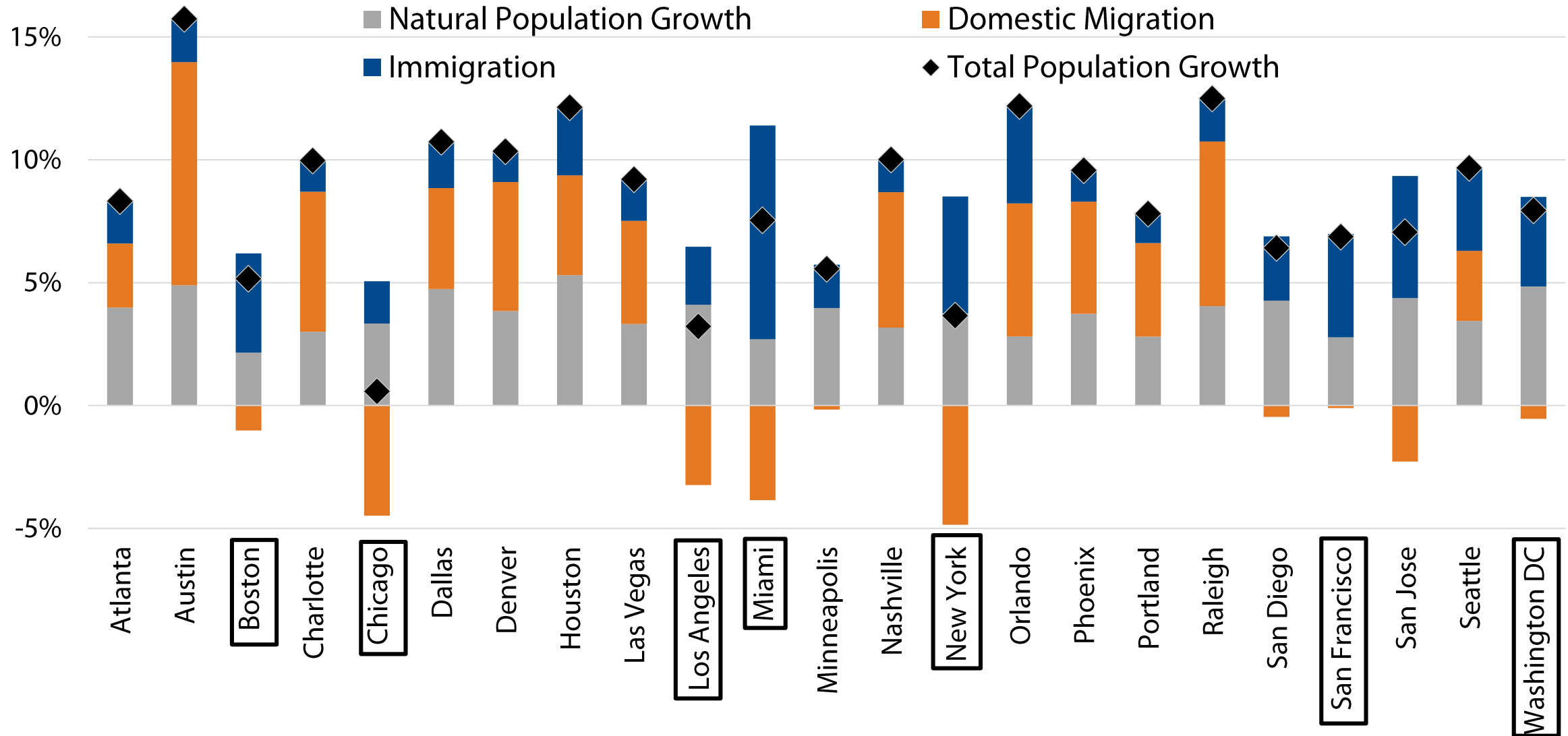


Source: IRS; Tax Foundation calculations
 Note: Figures shown are the net aggregate adjusted gross income (AGI) of migrants moving into or out of states between 2000 and 2010. Figures are in real 2010 dollars. Does not include foreign migration, births, or deaths. Published August 19, 2013.

taxfoundation.org/maps

Foreign Immigration is the Key to Gateway City Growth

Population Growth, 2011-2016



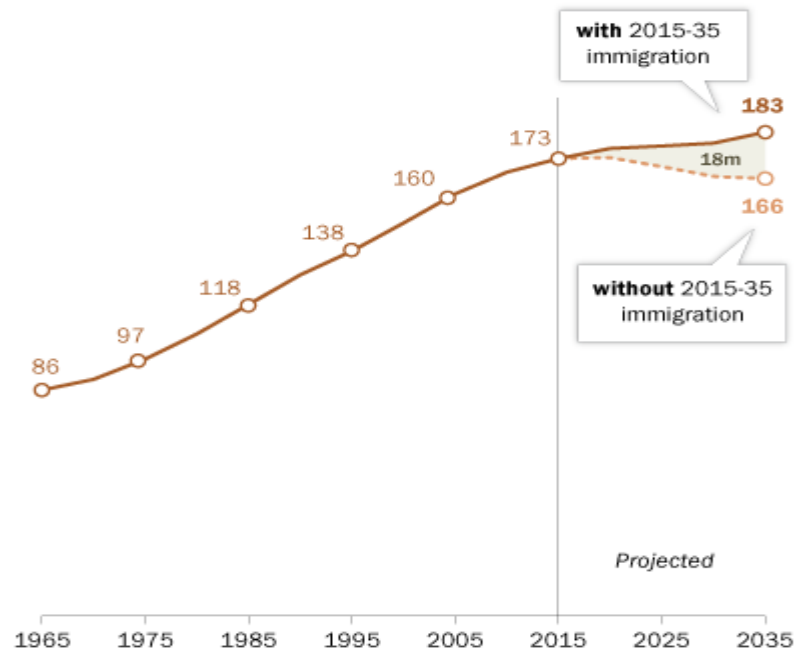
Source: U.S. Census Bureau (BOC); Moody's Analytics

Immigrant Impact

The future of growth in the American workforce is dependent on the continued flow of immigrants

Without future immigrants, working-age population in U.S. would decrease by 2035

Working-age population (25-64), in millions



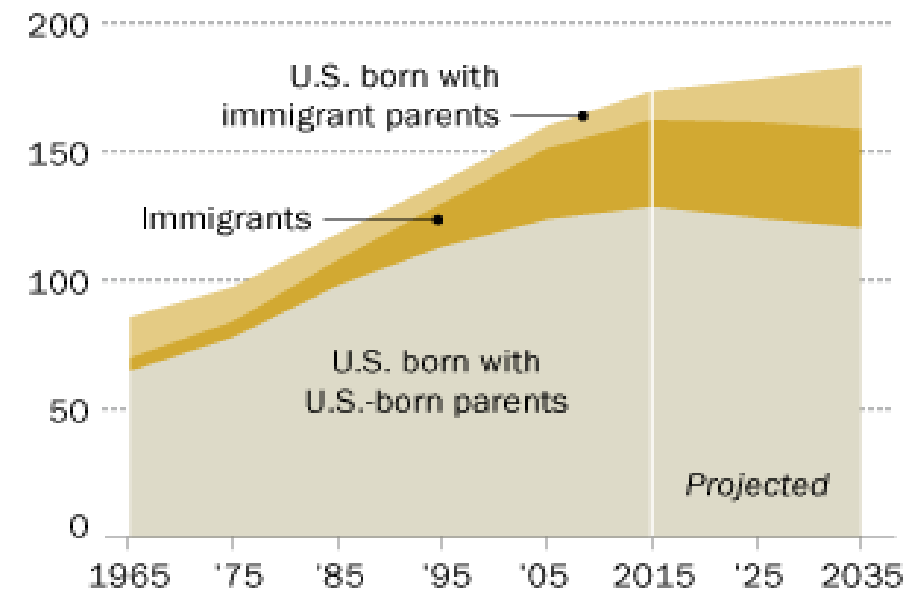
Note: Numbers for 2015 onward are projections.

Source: Pew Research Center estimates for 1965-2015 based on adjusted census data; Pew Research Center projections for 2015-2035.

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Immigrants and their U.S.-born children expected to drive growth in U.S. working-age population

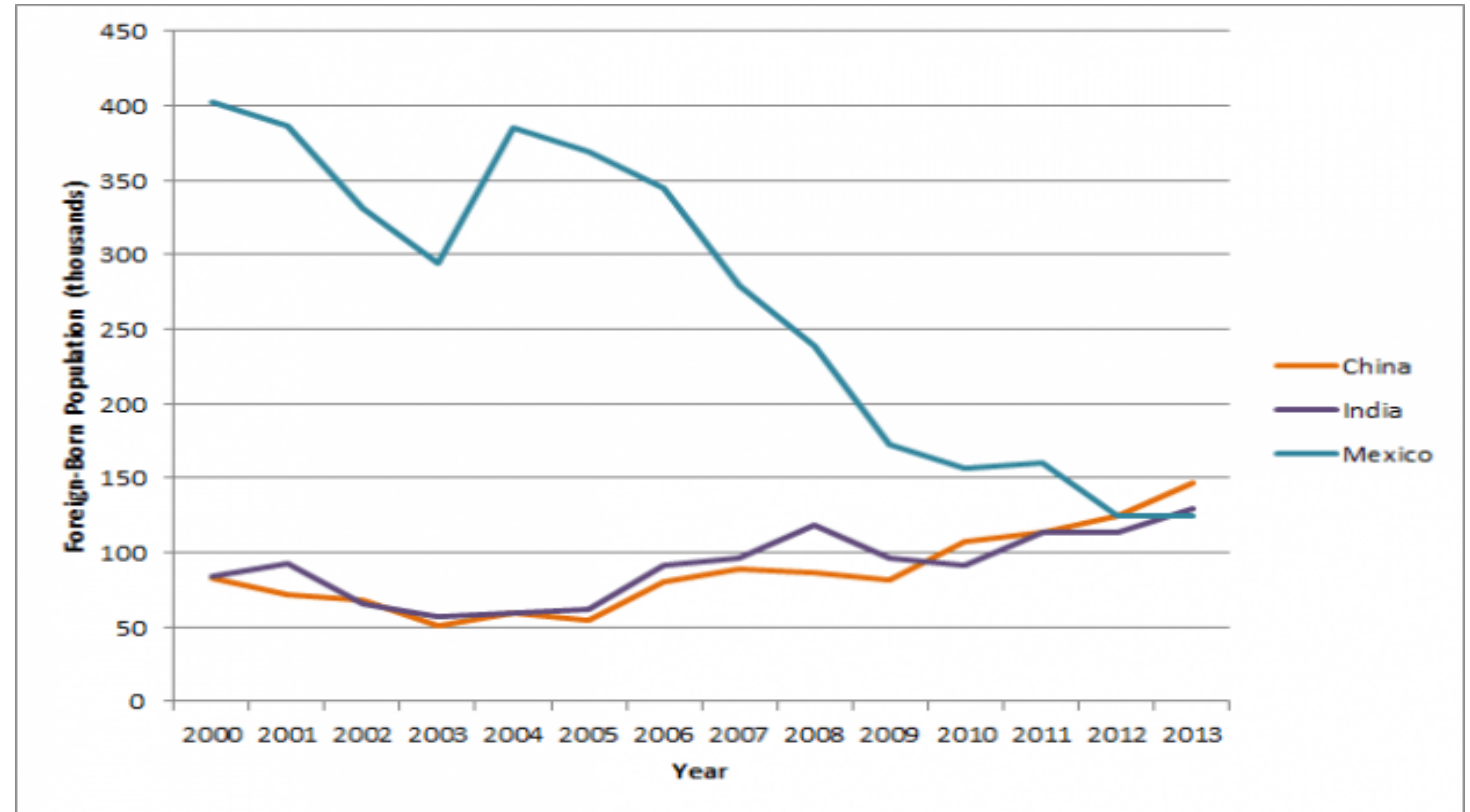
Working-age population (25-64), in millions



In 2013 India, China Replace Mexico as Largest Immigrant Source

Hispanic immigration significantly declining, while Asian/Indian immigration increases

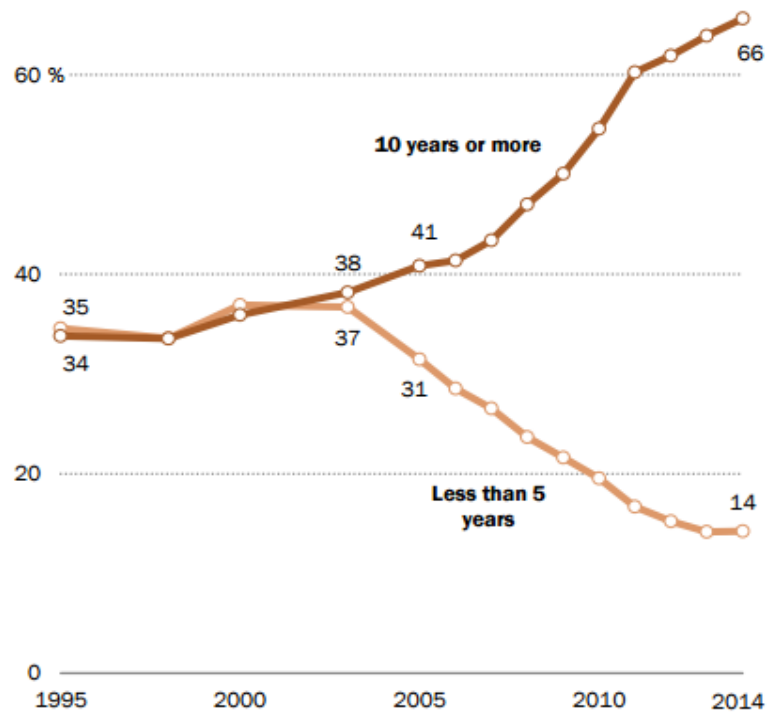
Legal Immigrants Coming to the U.S.			
	2015	2013	2012
Mexico	139,400	125,000	125,000
India	179,800	129,000	113,000
China	143,200	147,000	124,000



Unauthorized Immigrants Staying Longer

Larger share of unauthorized immigrants are long-term residents

% of adult unauthorized immigrants, by duration of U.S. residence

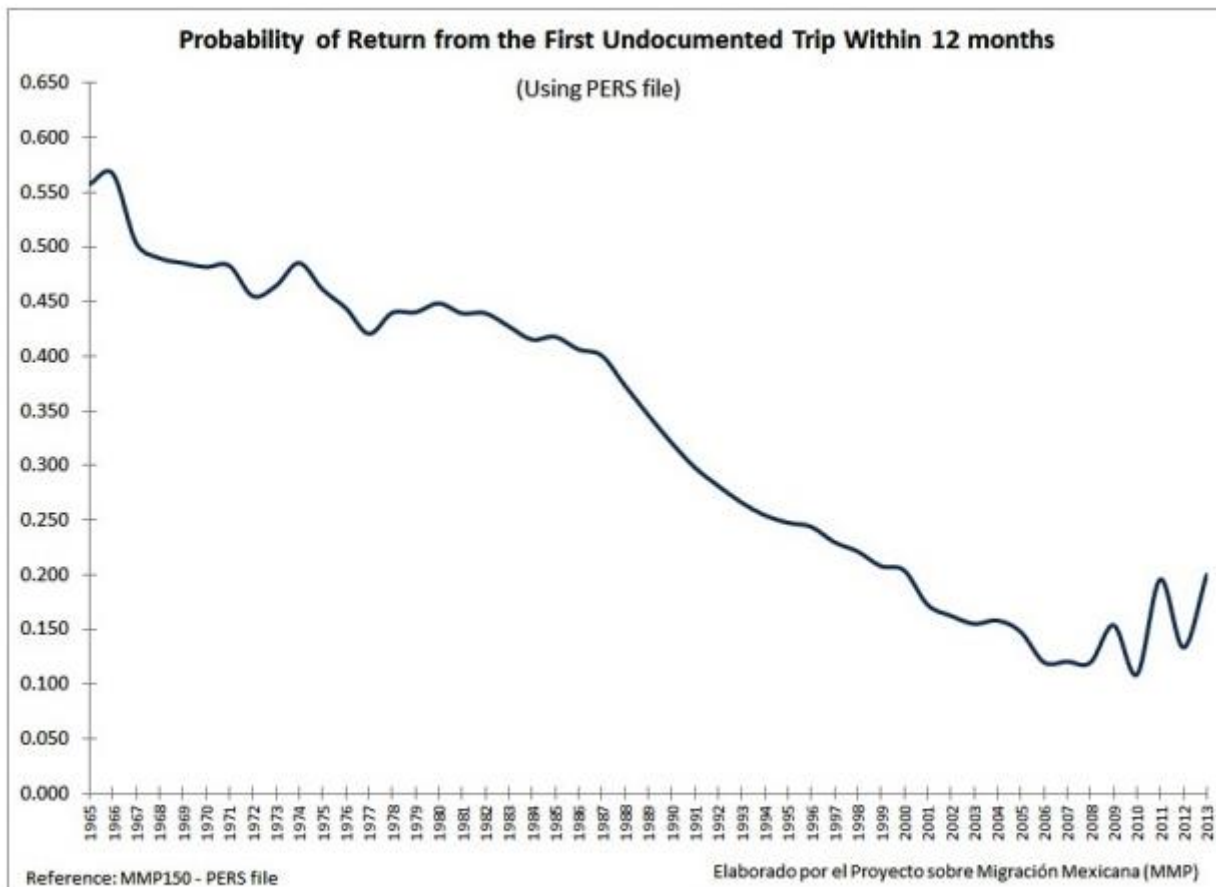


Note: Data labels are for 1995, 2003, 2005 and 2014.

Source: Pew Research Center estimates for 2005-2014 based on augmented American Community Survey data (IPUMS); for 1995, 1998, 2000 and 2003 based on March Supplements of the Current Population Survey.

"Overall Number of U.S. Unauthorized Immigrants Holds Steady Since 2009"

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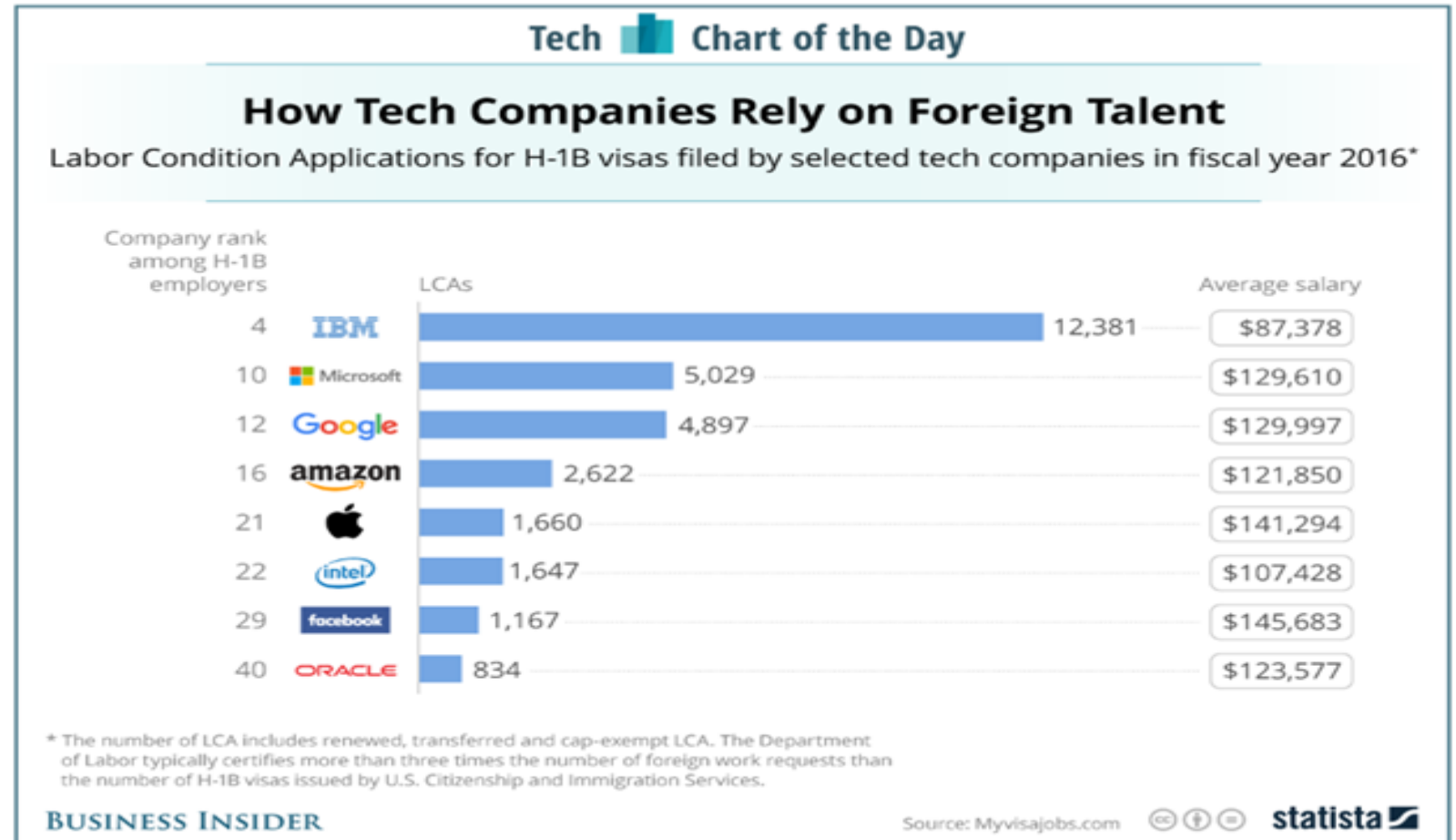
Reference: MMP150 - PERS file

Elaborado por el Proyecto sobre Migración Mexicana (MMP)

Technology Industry Relies on H1-B Visas

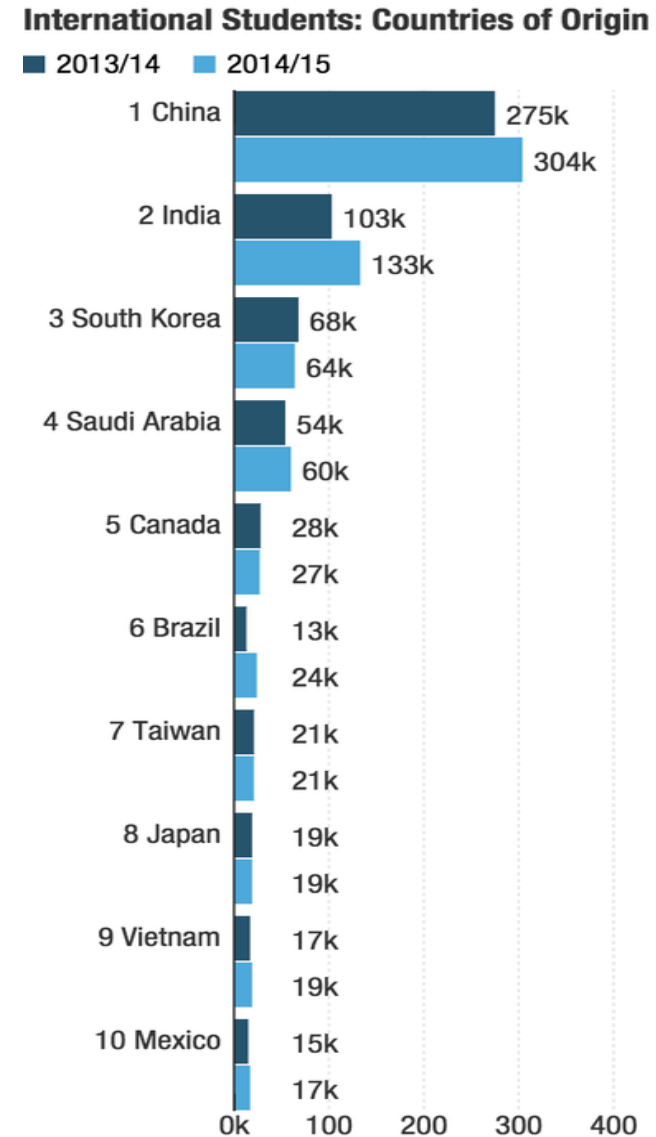
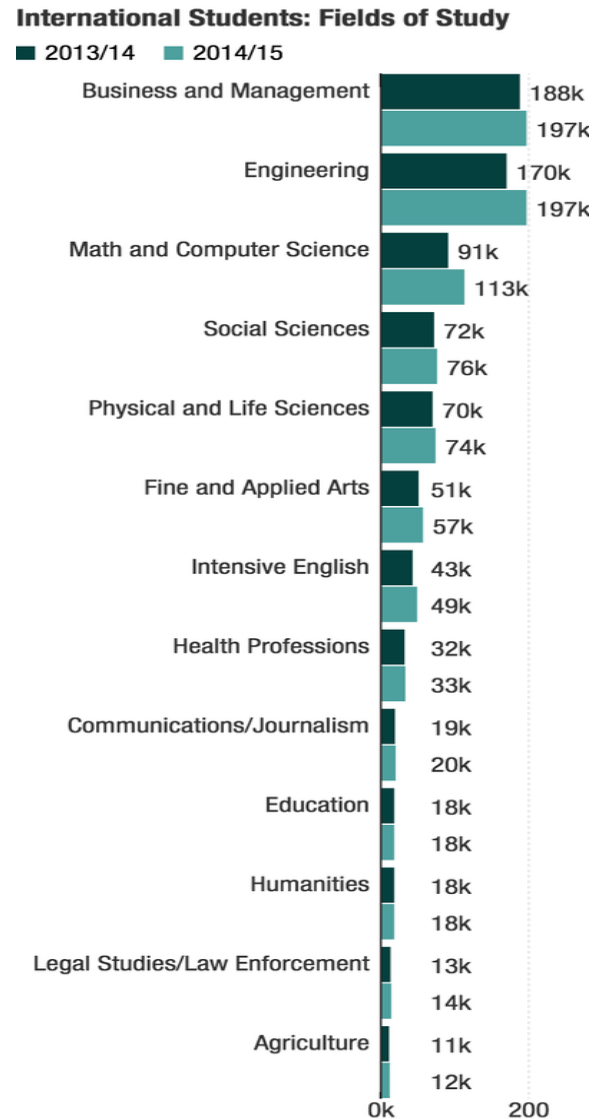
Changes to H1-B visa allocation hurt Indian outsourcing firms but helped the Tech sector

Tech companies are prominent seekers of H-1B workers, and are paying competitive salaries



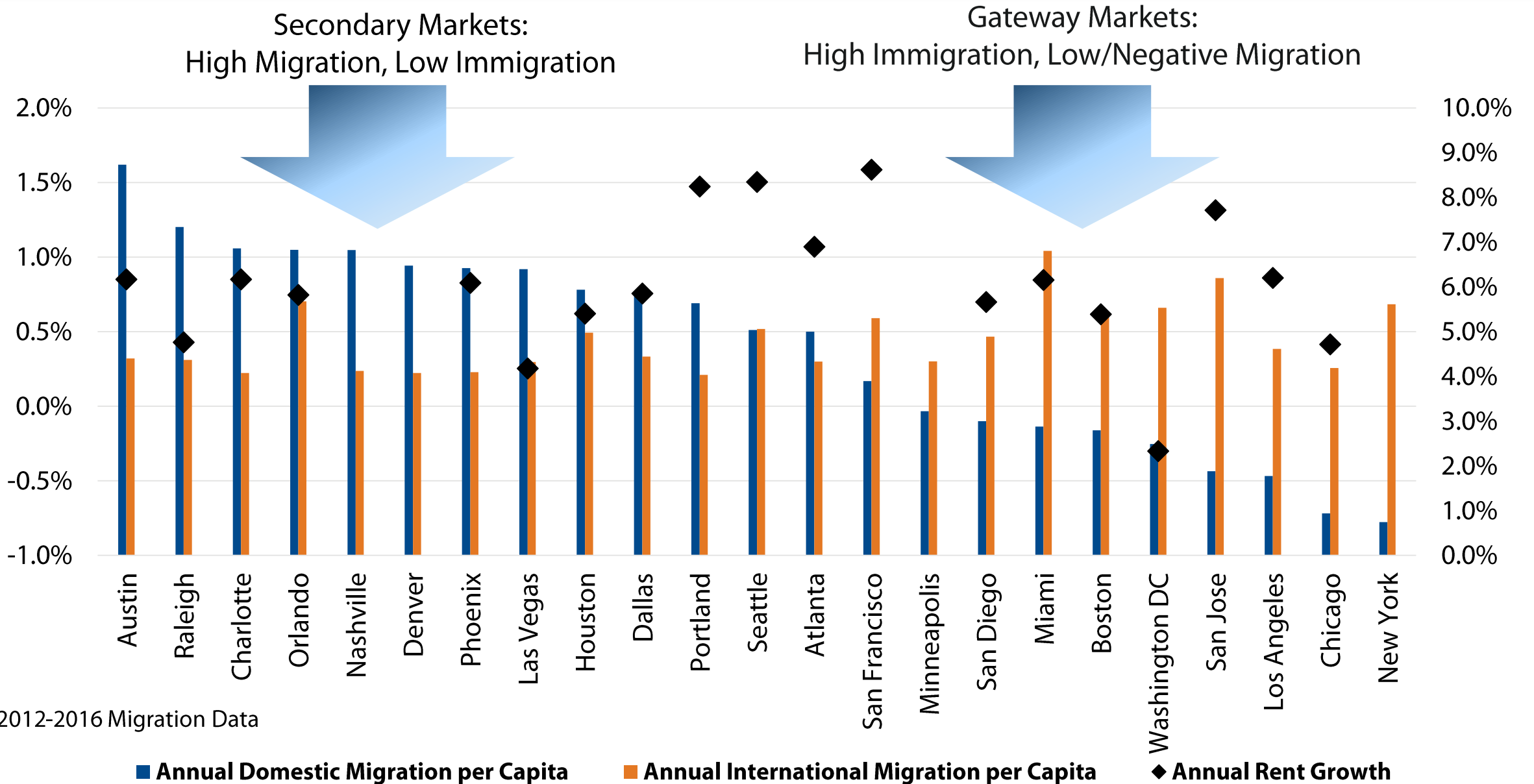
International Student Demographics

Key tech markets such as San Francisco, Boston, Seattle, New York... rely on immigrant workforces and international consumers



Immigrants are seeking coastal markets with renowned universities, staying for local tech/health care/engineering jobs

Immigrants Choose Gateway, Domestic Migrants Choose Secondary



*2012-2016 Migration Data

■ Annual Domestic Migration per Capita

■ Annual International Migration per Capita

◆ Annual Rent Growth

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

YARDI® Matrix

Int'l Gateway Cities are Most Exposed to Immigration Policy

International cities' net migration deficit is only made up by immigration.

Within that, certain industries and cities are impacted by specific programs:

H1-B/EB-5

- San Francisco
- Boston
- New York
- Washington, D.C.

Industries Affected

Tech, Finance
Tech, Healthcare
Finance, Tech
Healthcare, Defense

Certain cities, while not international gateways, are exposed to a lesser degree:

H1-B/EB-5

- Seattle

Industries Affected

Tech

Restrictive Borders

- Miami
- Orlando
- Los Angeles

Hospitality
Hospitality, Construction
Construction

What Might a Revamped Immigration System Look Like?

Merit Based Immigration Similar to Canada:

- Foreign nationals may apply for green cards on the basis of educational, intellectual, personal skills
- Limits “chain migration” of residents bringing family members to U.S.
- Would benefit intellectual capital based markets, and limit unskilled immigration

Technology's Impact on the Future of Real Estate

Employment Drivers

- Position where wealth is created and where “place” will increase in value
- Focus on live, work, play, then “Fulfill”/Store
- Technology permeates all industries – Tech, Transportation, Energy, Healthcare, Manufacturing
- Mobility – Always on, anywhere
 - Connectivity, Data Storage, Security
- Internet of Things – Interactive sensors
- Collaboration- free up trapped resources
- Autonomous Vehicles – cars, trucks, drones
- Robotics – The highly skilled survive
- Healthcare – Is data and is direct
- Artificial Intelligence – What it means to decide
- Energy – Solar & Batteries
- 3D Printing – Manufacturing without people

Inside the Building

- 1G Connectivity, 40x High Speed
- Internet of Things - Sensors
- Mobility – You and the Space
- Virtual Reality – Construction, Leasing and space utilization
- Robotics - Maintenance
- Usage of Space – Flexible designs
- Data manipulation and Data collection

- Drive out Low Value Added Labor Cost

Among the Community

- Filling societal gaps in infrastructure
- Education
 - Coding
 - Trade Schools/Skills...For Now
- Social connectedness
- Sensors in the grid – The interactive city
 - Panasonic in Denver
- 1G Infrastructure – Chattanooga, TN
- Non-coercive diversity and creative expression

- Drive Up Value Added of Remaining Labor

Technology Impact Continued

In the future, space will have to be more flexible as the pace of use changes

“Play”

Retail

Existing lower end retail will merge with office to salvage value

Experience driven-

less so “things”

Industrial replaces retail space

“Work”

Office

Will merge with retail experiences and short term living experiences



Already happening on small scale

“Live”

Multifamily

Proximity is already important, work and play will become increasingly important in “urban-like nodes” in what has been suburbia

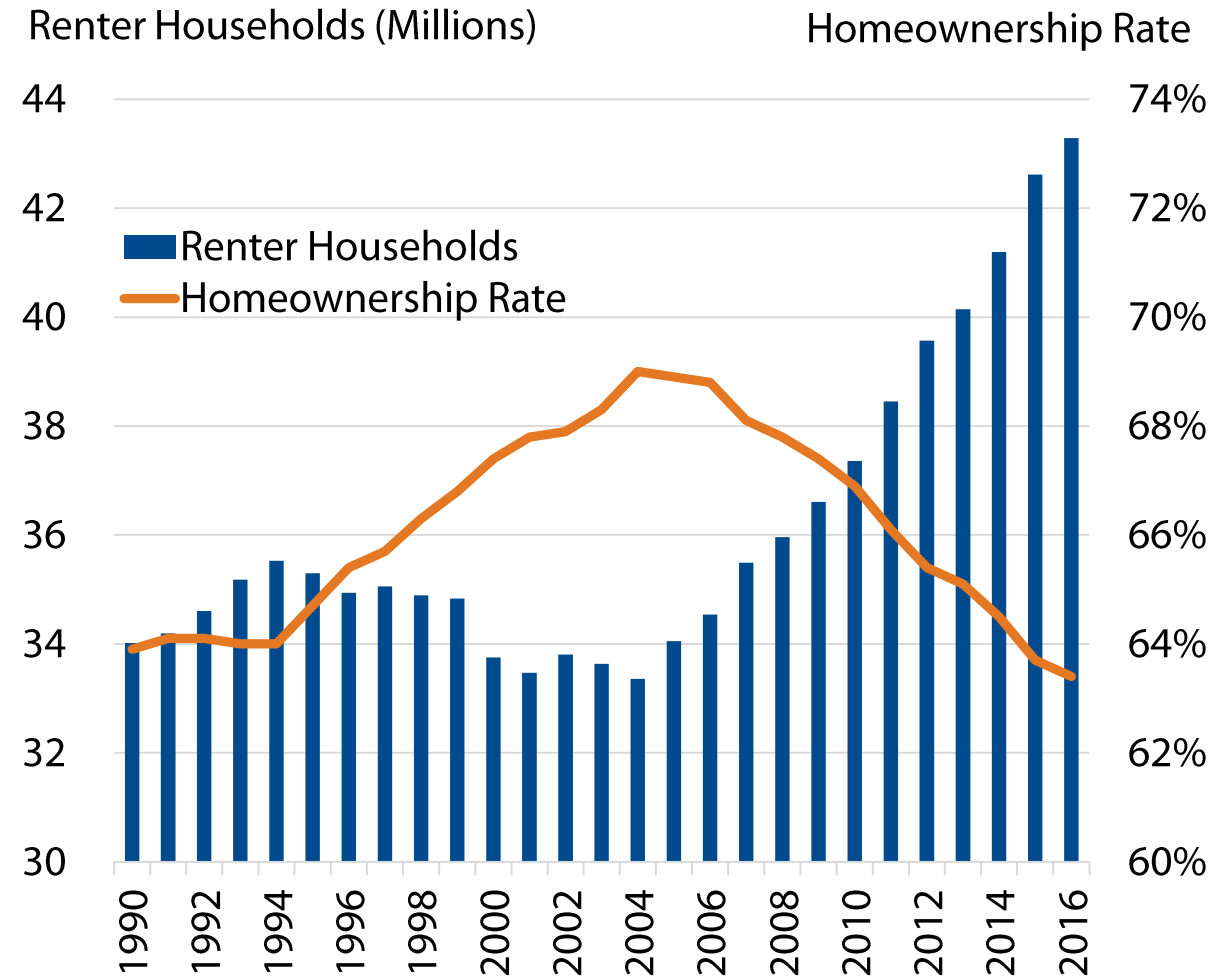
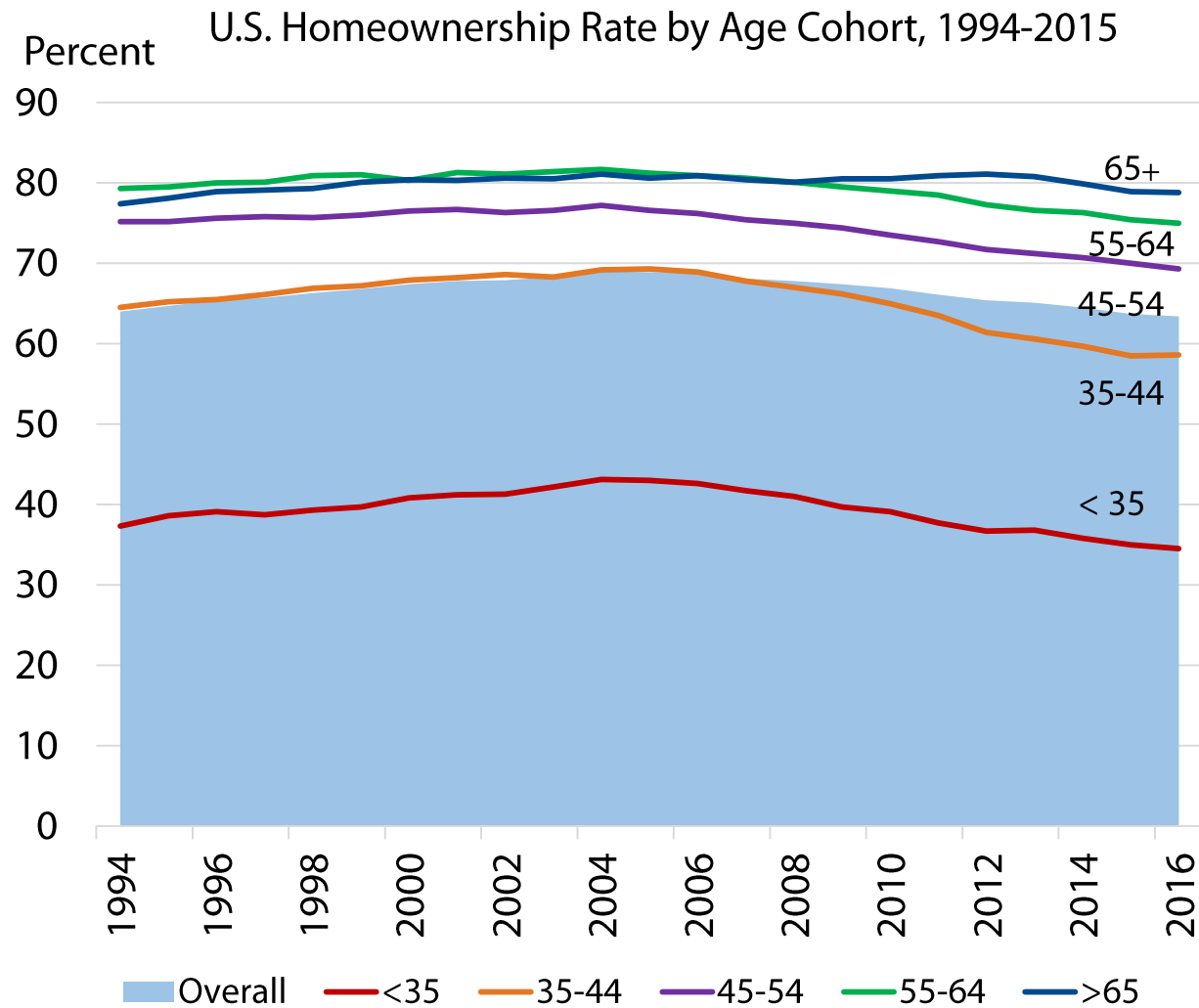
So What?- Demographics, Migration, Immigration

- The demographic story for US Multifamily remains strong, but....
 - Int'l Gateway markets are dependent on Int'l Immigration to cover for domestic out-migration
 - Top 20 non-Gateway Metros with growing populations in business friendly states are the main beneficiaries
 - Across generations
 - Across Intellectual Capital, High knowledge/value Industries
 - Suburban urbanized "nodes" seem well positioned in these Top 20 non-Gateway metros to see major growth in the next 10-15 years
 - Changing lifestyles of Millennial Generation is main driver
- Immigration as a Public Policy Issue is of Critical Importance to Int'l Gateway metros, and turbo charges other markets; while at the same time and the era of big immigration from Mexico is last decades' news
 - A convenient foil to hang over political opponents to the current administration (as it the local/state tax deduction)
 - Hollowing out of US Mfg is real and WTO (2000) related; if it comes back there won't be many jobs coming back with it
 - Obscures the real public policy failure in education and developing an effective apprenticeship program
- Technology continues to rip through the economy with continued concentration of benefits-
 - Position your investments in areas of rising tides
 - Enable flexibility of the real estate to incorporate new technologies and changing uses of space
 - Take advantage of public infrastructure failure to develop multiple, flexible uses for space

Appendix A: Demographics



Homeownership Rates Declining



*Beginning in 2000, renter household data are the revised, consistent-vintage counts. 2000-09 counts are 2010 vintage, 2010-15 are 2014 vintage

Source: US Census Bureau (BOC); Housing Vacancy Surveys

Significant Variation by City- but the US won't ever look like LA/SF

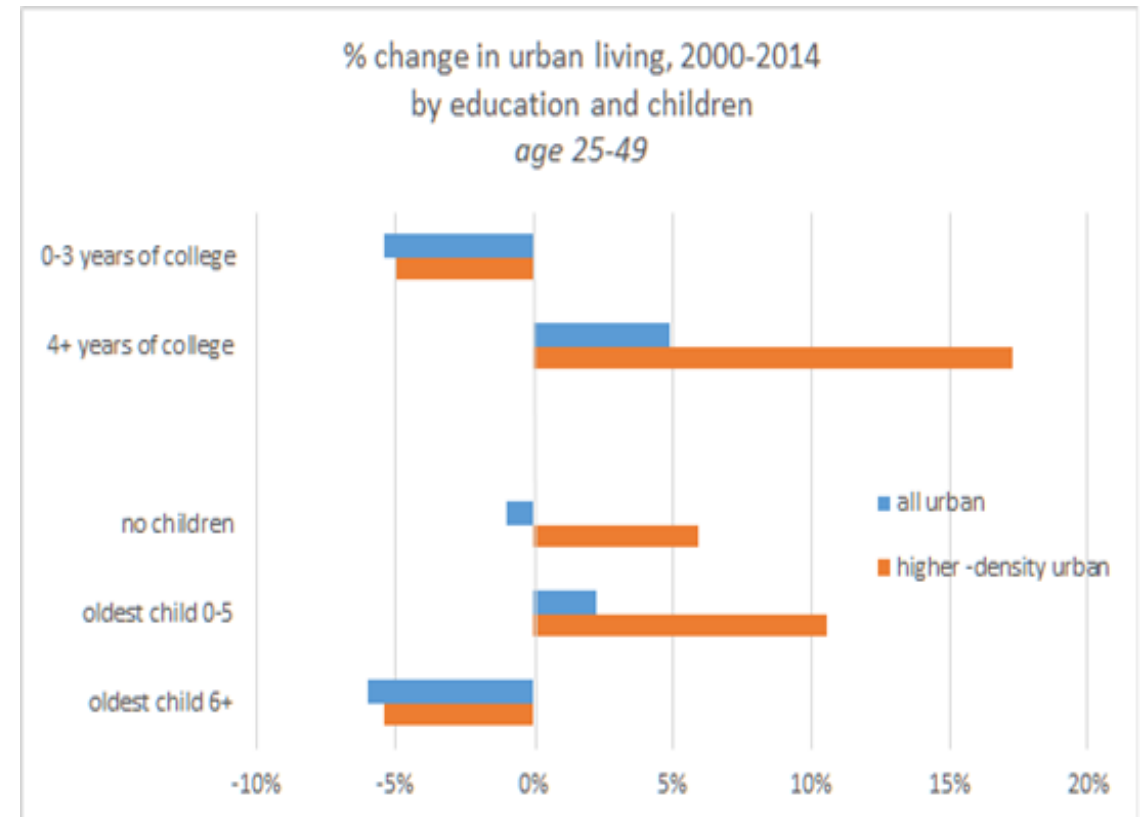
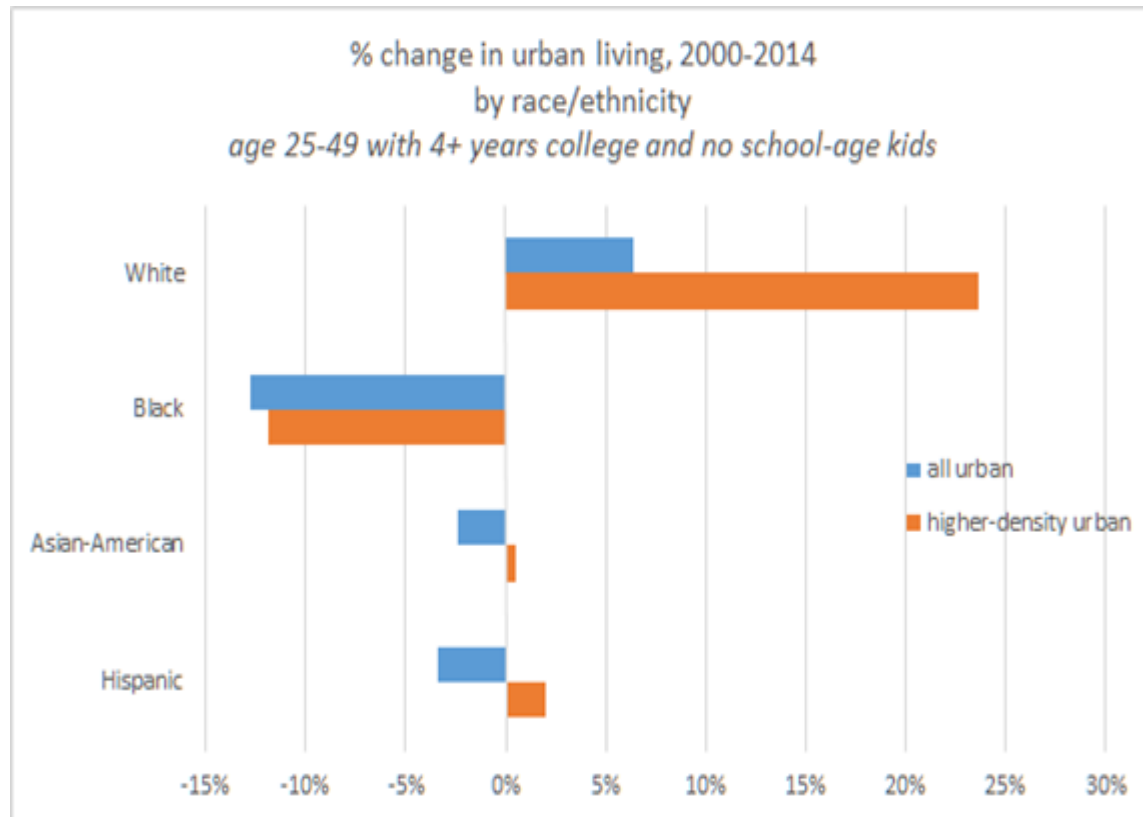
Metro	Homeownership Rate 2006	Homeownership Rate 2016	% Point Drop
Orlando	70.5%	58.4%	12.1%
Miami	69.2%	58.6%	10.6%
Phoenix	71.2%	61.0%	10.2%
Portland	68.3%	58.9%	9.4%
Las Vegas	61.4%	52.1%	9.3%
Denver	70.7%	61.6%	9.1%
San Diego	60.5%	51.8%	8.7%
San Jose	59.2%	50.7%	8.5%
Inland Empire	68.5%	61.1%	7.4%
Tampa - St Petersburg	71.7%	64.9%	6.8%
Philadelphia	73.5%	67.0%	6.5%

Metro	Homeownership Rate 2006	Homeownership Rate 2016	% Point Drop
Austin	63.9%	57.5%	6.4%
Chicago	70.0%	64.3%	5.7%
Los Angeles	54.6%	49.1%	5.5%
Jacksonville	67.9%	62.5%	5.4%
Baltimore	70.6%	65.3%	5.3%
Seattle	64.5%	59.5%	5.0%
Boston	63.0%	59.3%	3.7%
Sacramento	64.1%	60.8%	3.3%
San Francisco	57.8%	56.3%	1.5%
San Antonio	66.0%	66.0%	0.0%

Bottom is probably ~62%, rising slowing back to ~63%

Urbanization Demographics

- Shift to cities seen most dramatically in young, educated, high income demographic
- Delayed marriage and children bearing allows individuals to seek urban lifestyle without need for suburban amenities
- Urban centers are definitely not dead but suburbs will revitalize too



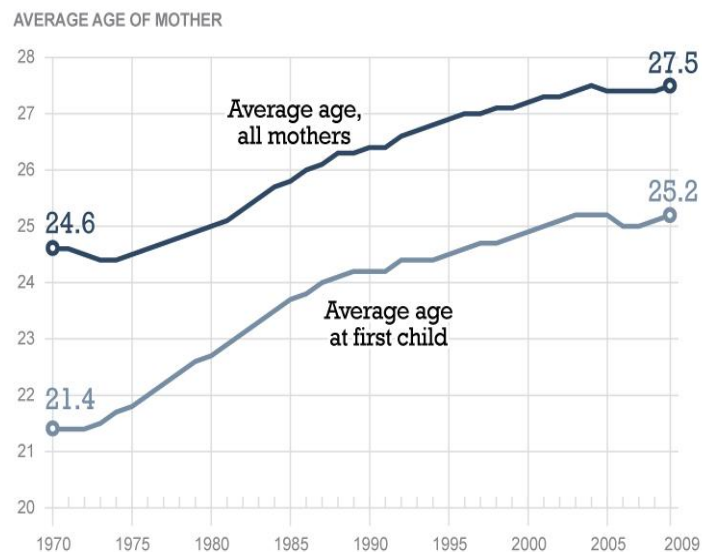
Source: Jed Kolko; jedkolko.com; candysdirt.com

Millennial Tailwinds

FACT:

The average age of first-time mothers has steadily increased

Since 1970, the average age of mothers giving birth to their first child has increased from 21 to 25. For all births, the average age of the mother has increased by about three years over this same period.



Source: National Center for Health Statistics, National Vital Statistics Reports, 2011.

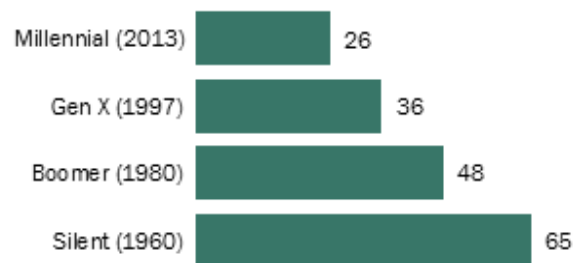
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familyfacts.org

*College Educated

The Decline in Marriage Among the Young

% married at age 18 to 32, by generation

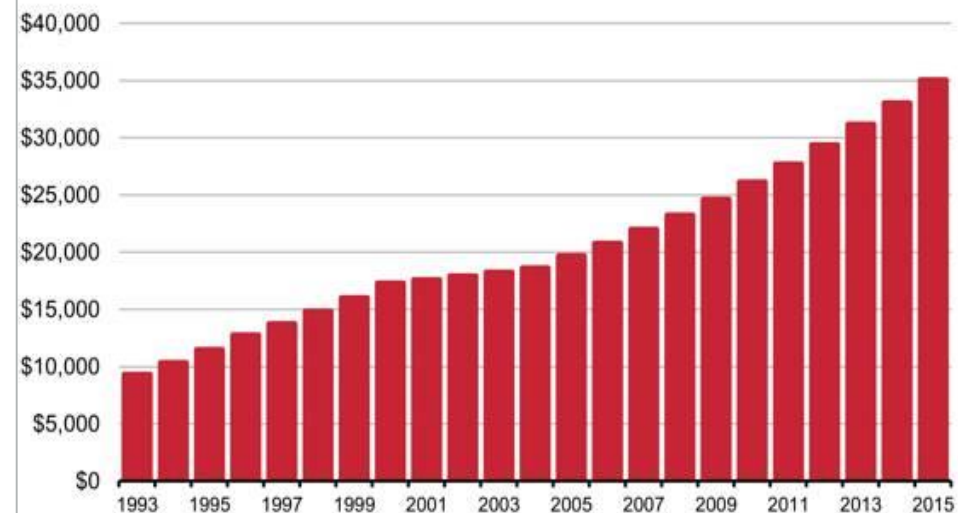


Source: Data from 1980, 1997 and 2013 are from the March Current Population Survey; 1960 data are from the 1960 Census

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Head of the Class

Average debt per borrower in each year's graduating class



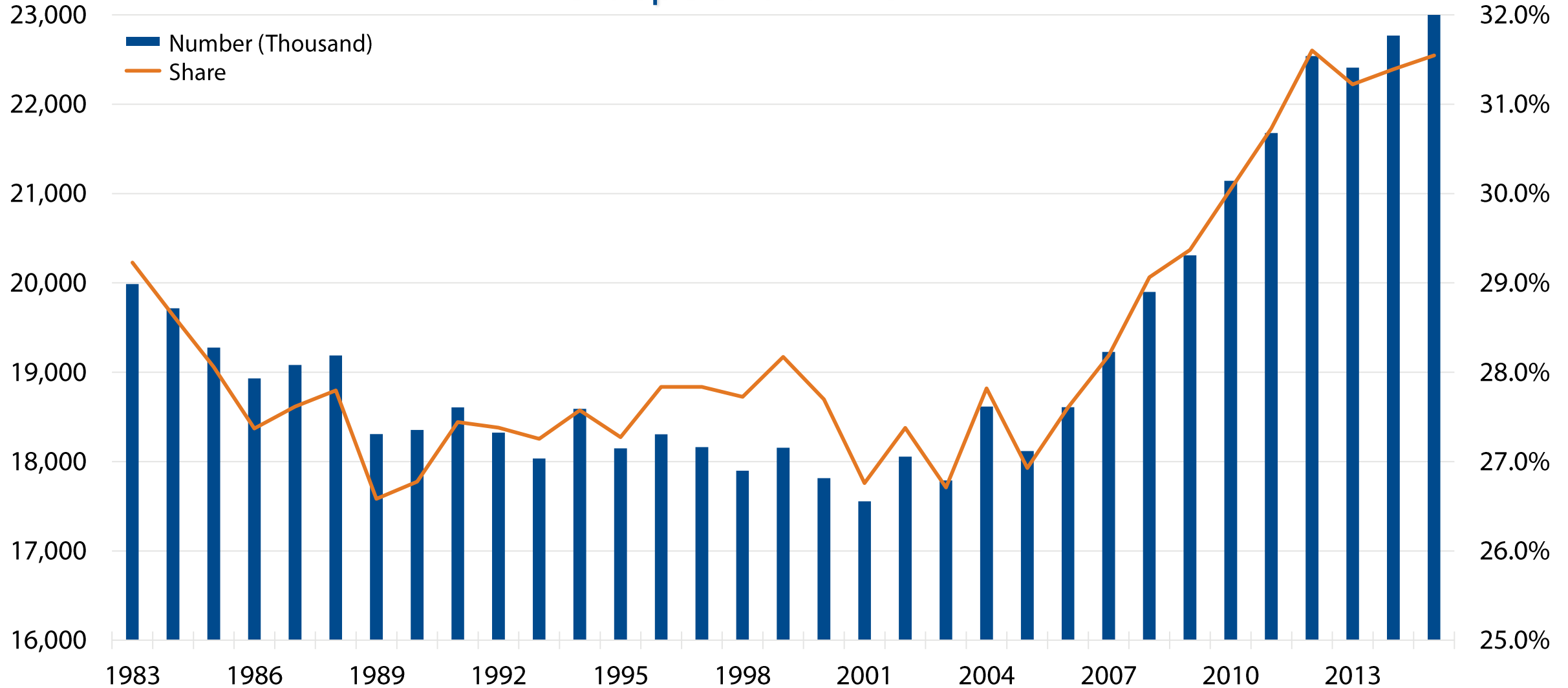
Source: Mark Kantrowitz | WSJ.com

CAGR Comparison

Student Debt	Med HH Income*
5.8%	0.1%

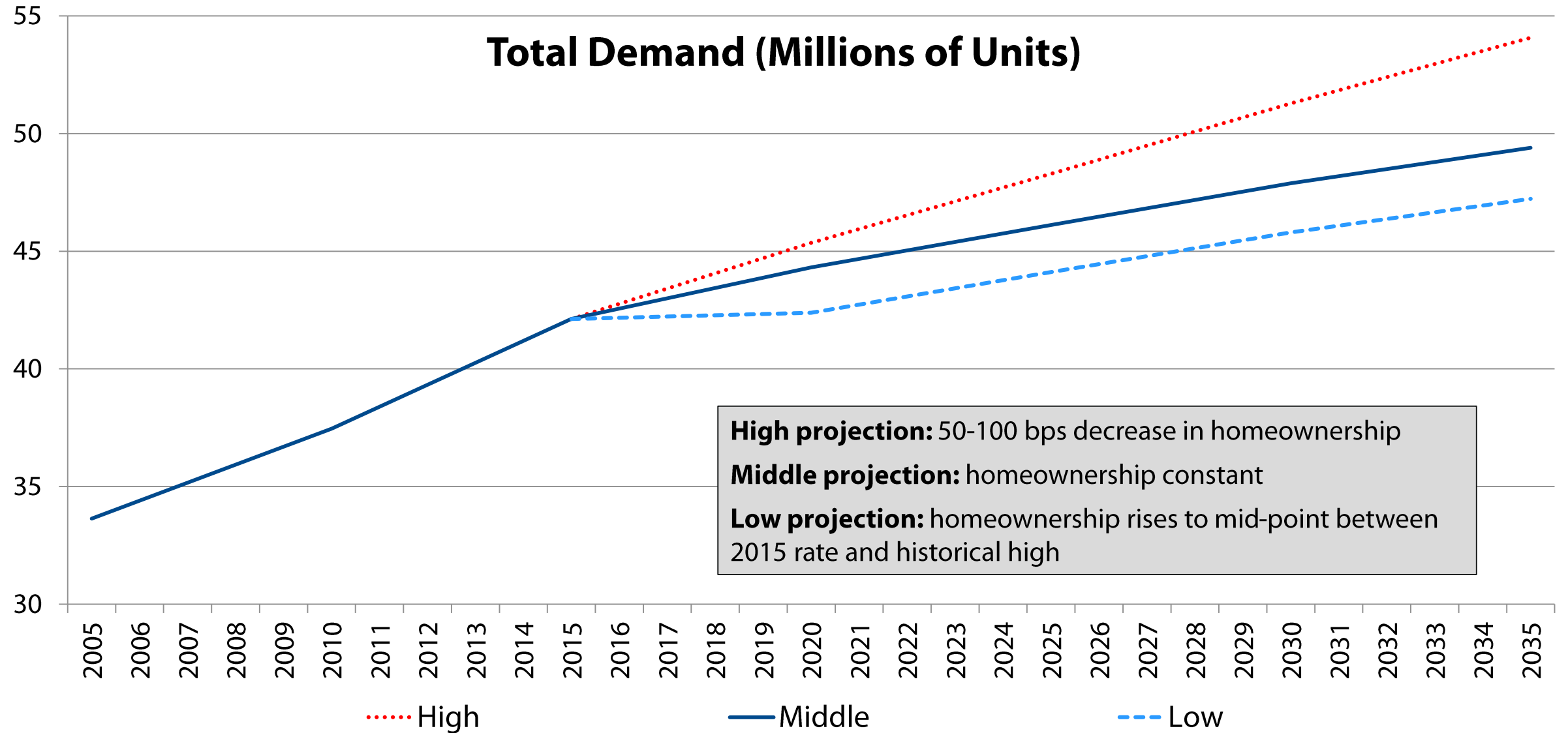
Many Young Adults Still Living at Home

Pent-Up Demand = ~ 3mm HH



Source: U.S. Census Bureau (BOC)

Future Rental Demand Looks Strong



Conclusion– Disclaimer & Contact

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