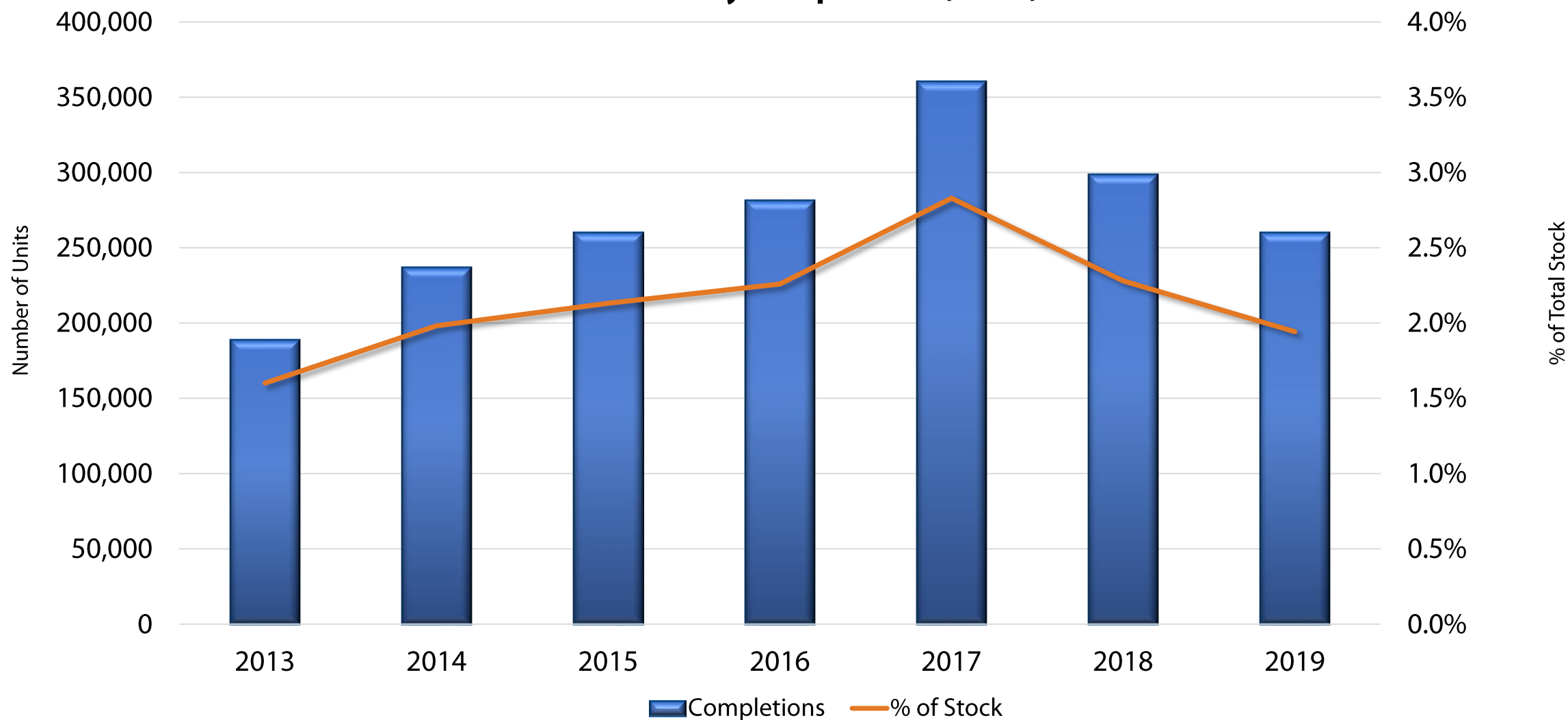# YARDI

IMN U.S. Real Estate Investing Forum
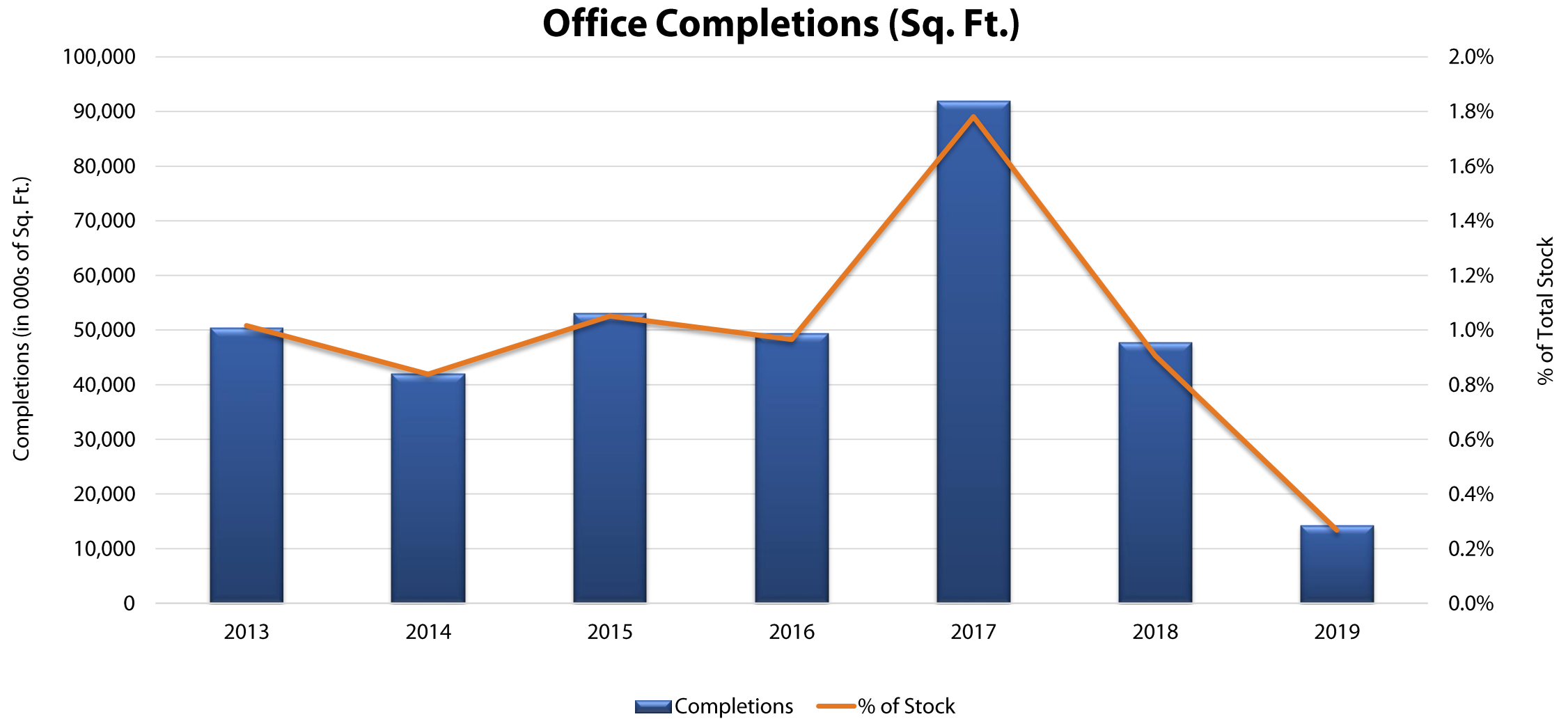## Secondary vs. Urban vs. Suburban Markets

Jeff Adler
Vice President, Yardi Matrix

National Multifamily Supply Continues to Grow, but will Likely Peak in 2017
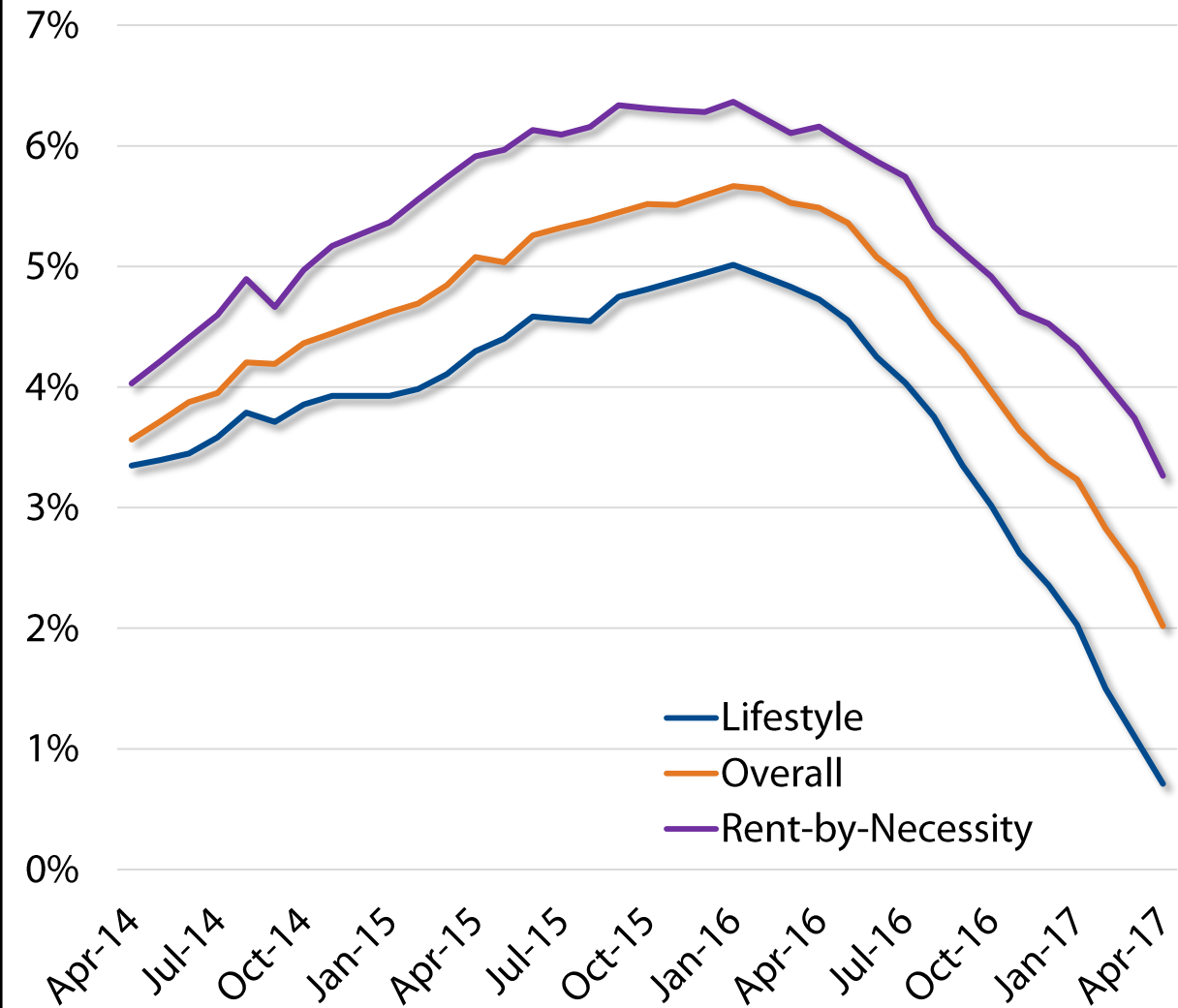
Multifamily Completions (Units)

Completions — % of Stock

Source: Yardi® Matrix

YARDI

National Office Supply Also Growing, and will Likely Peak in 2017

Office Completions (Sq. Ft.)

Source: Yardi® Matrix

YARDI

National Multifamily Rent Growth and Occupancy Have Crested

Year-over-Year Rent Growth, Current Month

Legend:
- Lifestyle
- Overall
- Rent-by-Necessity

Y-axis: 0% to 7%

X-axis: Apr-14, Jul-14, Oct-14, Jan-15, Apr-15, Jul-15, Oct-15, Jan-16, Apr-16, Jul-16, Oct-16, Jan-17, Apr-17

Source: Yardi® Matrix

Occupancy Rate by Asset Class

Occupancy Renters-By-Necessity

Occupancy Upper Mid-Range

Occupancy Discretionary

Y-axis: 92.0% to 97.0%

X-axis: May-11, Oct-11, Mar-12, Aug-12, Jan-13, Jun-13, Nov-13, Apr-14, Sep-14, Feb-15, Jul-15, Dec-15, May-16, Oct-16, Mar-17
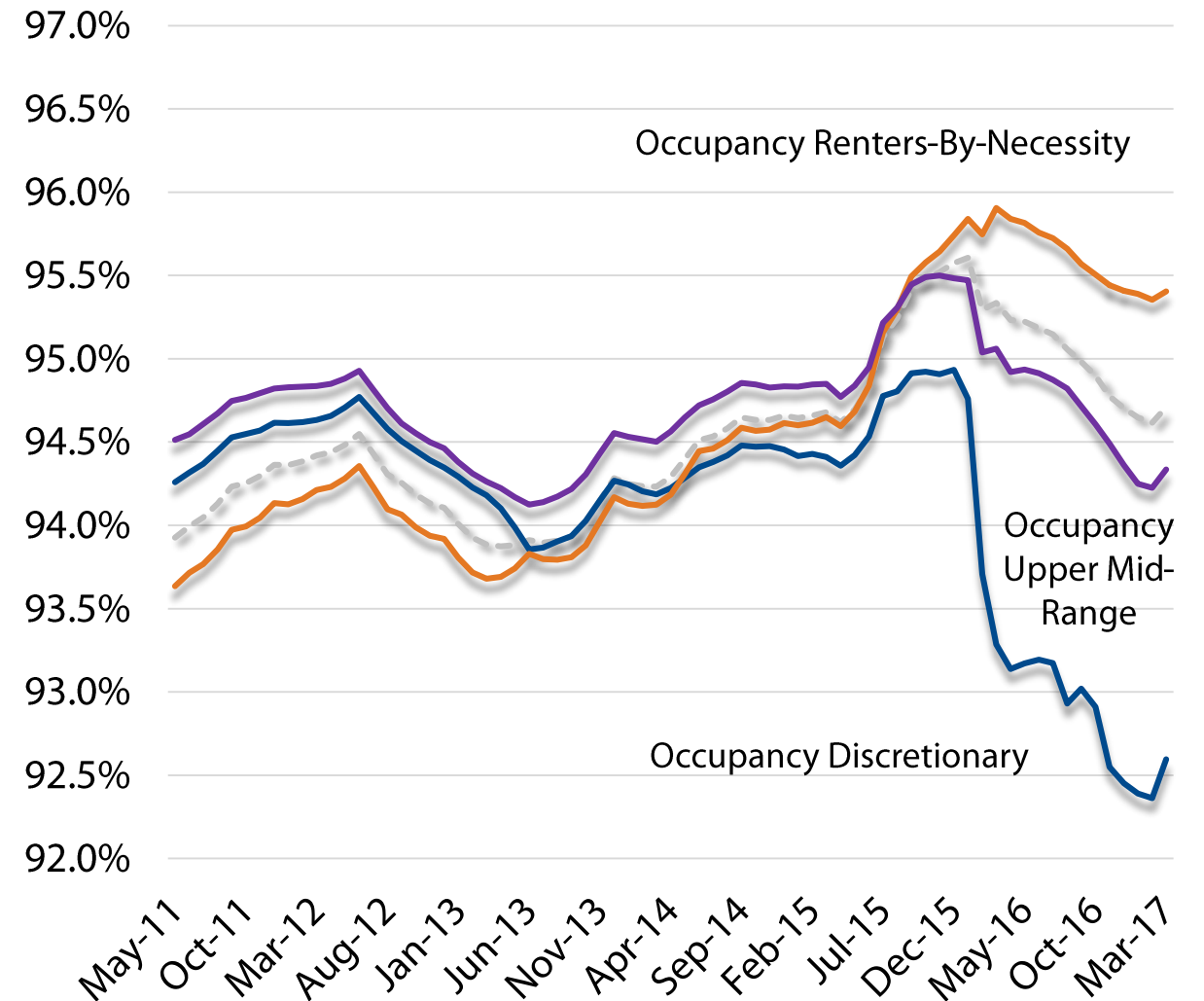
YARDI

National Office Lease Rates and Vacancy Rates

Office Lease Rate by Asset Class

Price per Sq. Ft.

$60
$55
$50
$45
$40
$35
$30
$25
$20
$15
$10

Apr-13 | Jul-13 | Oct-13 | Jan-14 | Apr-14 | Jul-14 | Oct-14 | Jan-15 | Apr-15 | Jul-15 | Oct-15 | Jan-16 | Apr-16 | Jul-16 | Oct-16 | Jan-17 | Apr-17

A+ ──── A ──── B ──── C
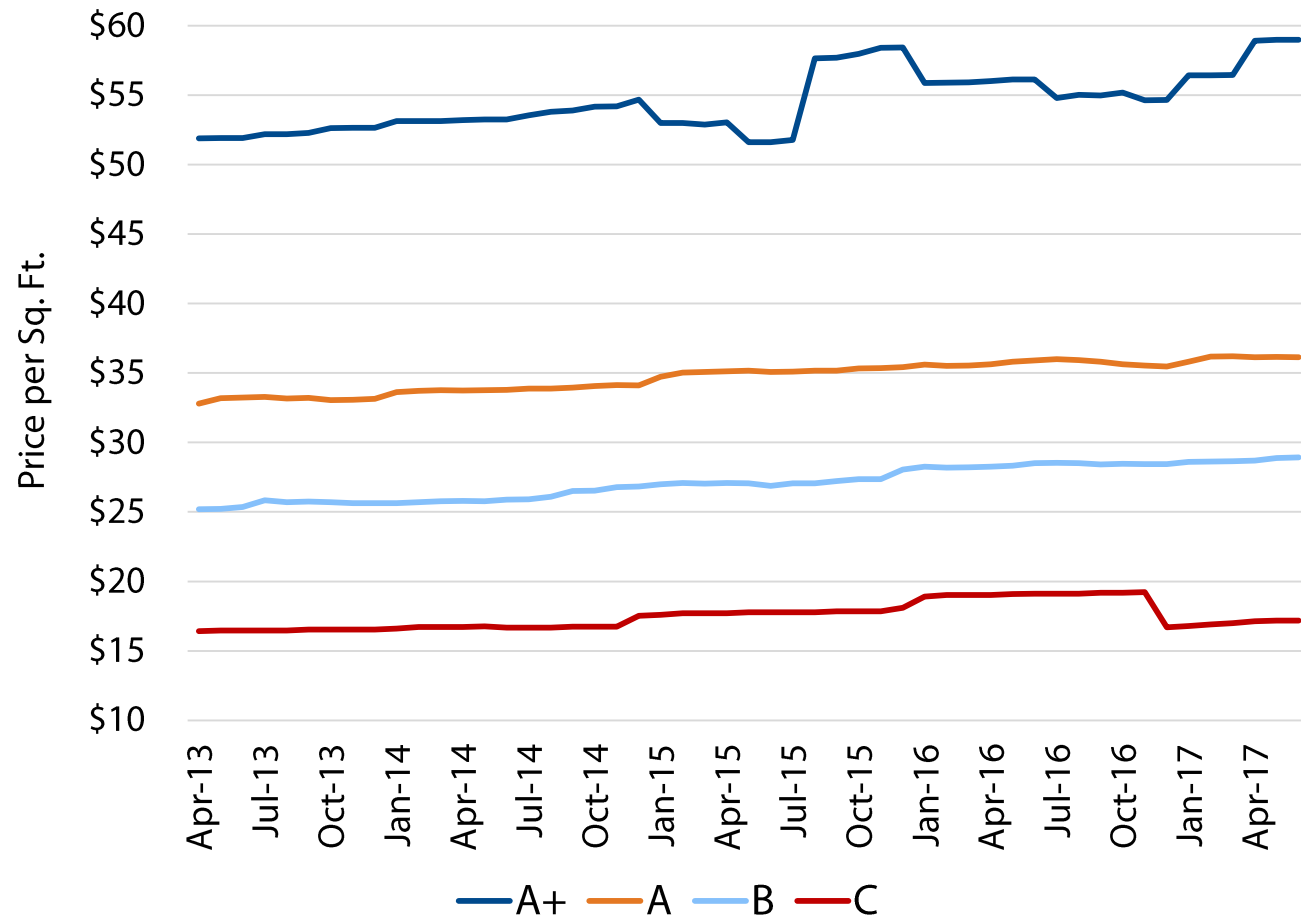
Market	Vacancy Rate excluding Sublease	Vacancy Rate Including Sublease
Atlanta	14.5%	14.9%
Bay Area	11.9%	13.6%
Fort Lauderdale	14.1%	14.4%
Inland Empire	15.7%	15.9%
Los Angeles	12.7%	13.2%
Manhattan	7.1%	7.8%
Miami	10.6%	11.3%
Orange County	10.0%	10.1%
Phoenix	16.1%	17.0%
San Diego	10.5%	11.4%
San Francisco	7.2%	8.5%
West Palm Beach - Boca Raton	14.4%	14.7%

Source: Yardi® Matrix

YARDI

Employment vs. Supply; It's Getting Bumpy for the Multifamily Industry

Marker size is proportionate to total units in each market

- ⬤ = < 2.9% forecasted rent growth 2017
- ⬤ = 3.0%-4.9% forecasted rent growth 2017
- ⬤ = > 5.0% forecasted rent growth 2017

Slower growth, Potential Supply Absorption Issues

Y-axis: Completions as a % of Stock (0.0%, 1.0%, 2.0%, 3.0%, 4.0%, 5.0%, 6.0%)

X-axis: Job Growth Year-over-Year (0.5%, 1.0%, 1.5%, 2.0%, 2.5%, 3.0%, 3.5%, 4.0%, 4.5%)

Markets: Charlotte, Nashville, Austin, Seattle, Miami, Denver, Houston, Chicago, Portland, San Antonio, Los Angeles, San Francisco, Raleigh, Dallas, Atlanta, Orlando, Washington DC, Kansas City, Boston, San Diego, Las Vegas, Twin Cities, Baltimore, Phoenix, Sacramento, Indiana..., Philadelphia, Tampa, Inland Empire, Orange County

Source: Yardi® Matrix, Bureau of Labor Statistics

YARDI

Office Using Employment Growth Generally Outpaces Office Supply Growth

Marker size is proportionate to total sq. ft.in each market

New Supply Exceeds Job Growth

New Supply Less Than Job Growth

New Supply as a % of Stock (2017 Forecast)

Year-over-Year Office Using Employment Growth (as of April 2017)

Nashville, Seattle, Charlotte, Kansas City, Las Vegas, Salt Lake City, Dallas, Raleigh, Boston, Atlanta, Tampa, Orlando, Austin, Phoenix, Houston, Baltimore, Chicago, Denver, San Antonio, San Jose, Inland Empire, San Francisco, San Diego, Philadelphia, Los Angeles, Twin Cities, Orange County, Washington DC, Miami, Manhattan, Sacramento

Source: Yardi® Matrix, Bureau of Labor Statistics

YARDI

Multifamily Sales Price Per Unit-Index 2008=100

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

Significant Spread

Good Entry Point

Spread has Narrowed

The multifamily transaction market is back on its feet. YTD 2017 property transaction volume:

January 1 – March 15: -34%
March 15 – April 30:   +25%
YTD 2017:   **-5%**

—— Lifestyle   —— Renter-by-Necessity

Source: Yardi® Matrix
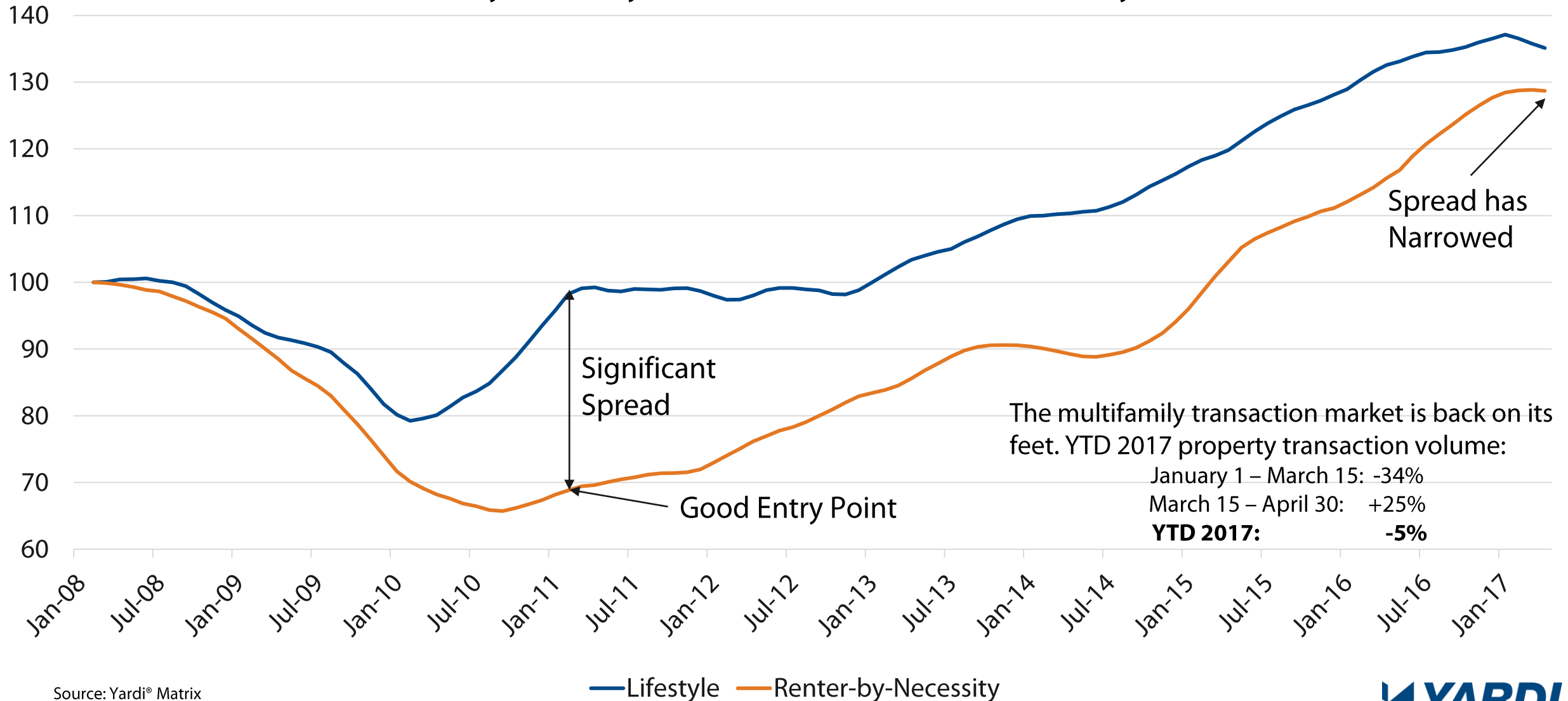
◤ YARDI

Office Sales Price Per Sq. Ft.-Index 2008=100

Class A/A+ Has Flattened, While Class B/C Has Steadily Increased

Legend: A+/A, B/C
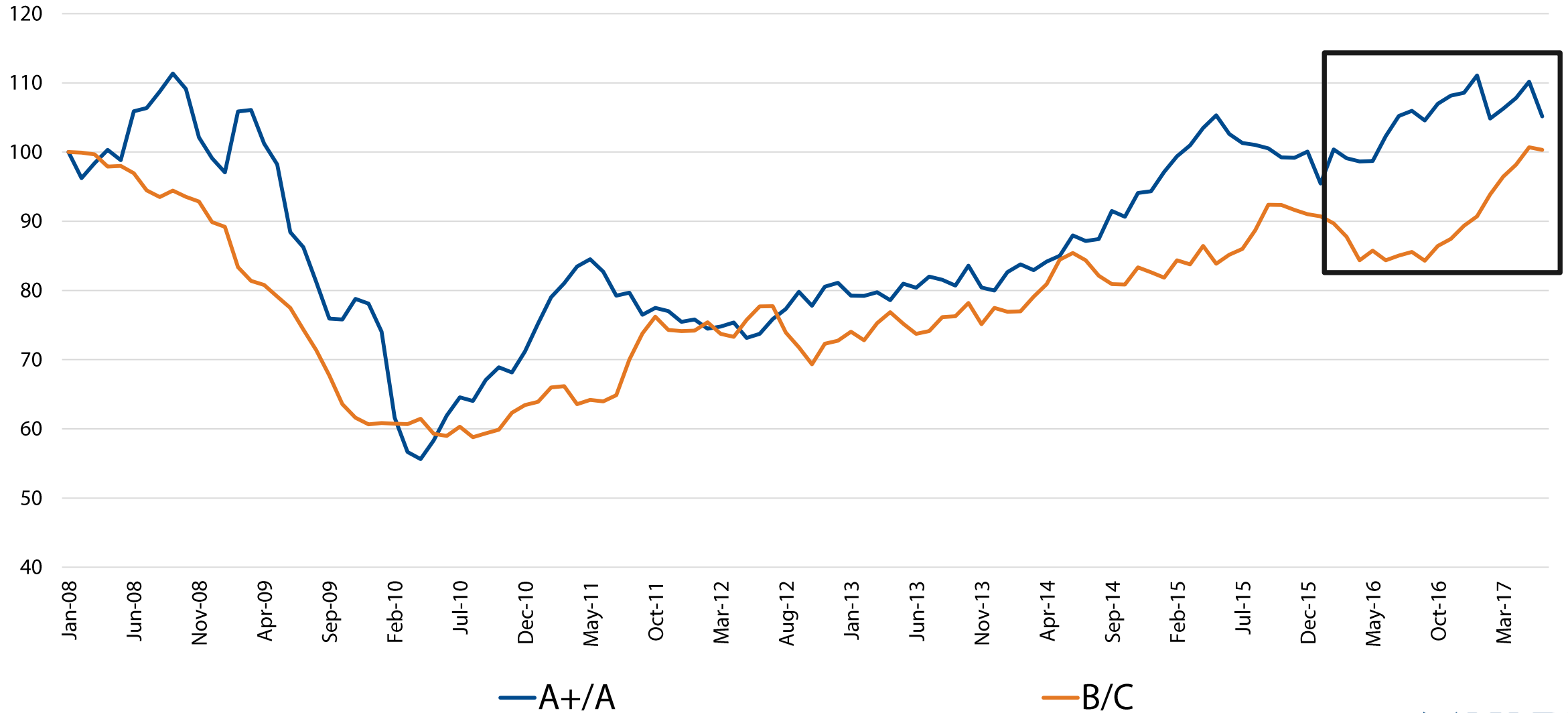
Source: Yardi® Matrix

Major U.S. Markets – Our "Curated" Group

Sector
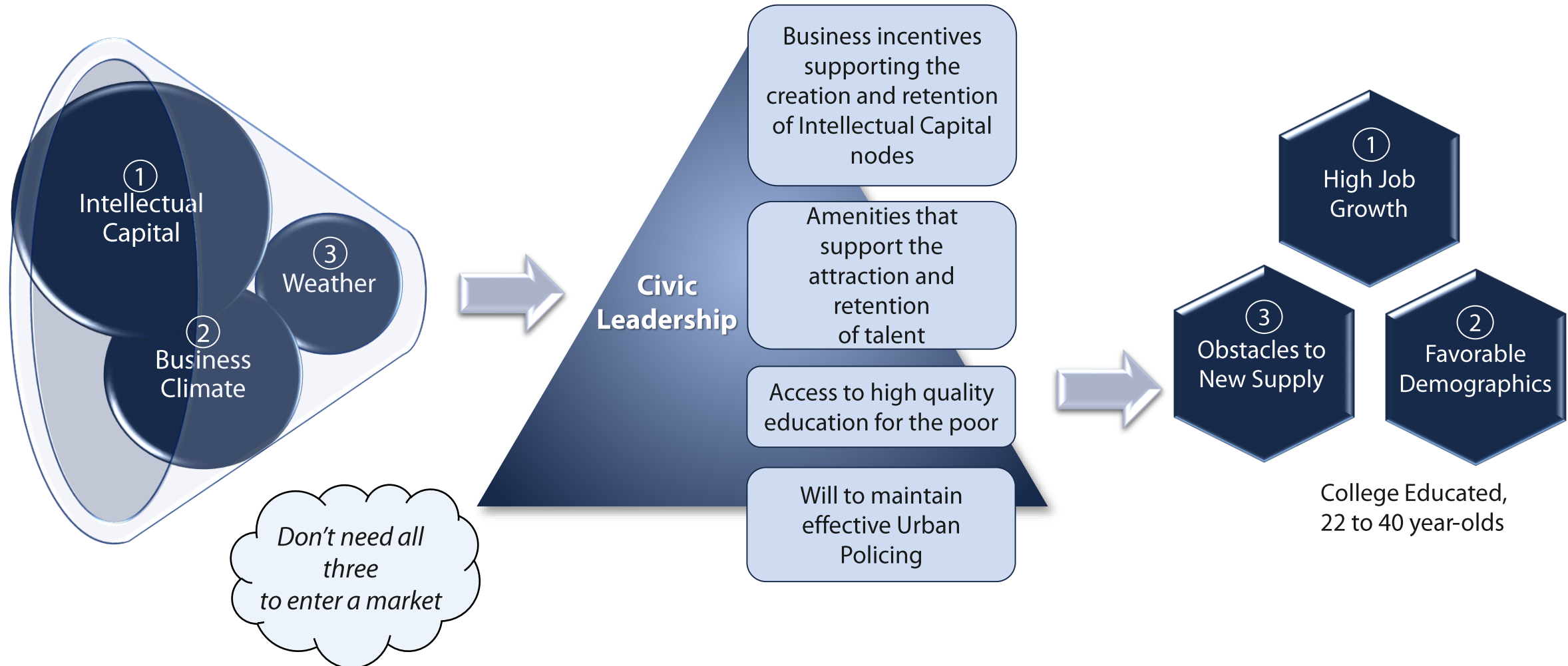- ■ Consumer Marketing
- ■ Defense
- ■ Financial Services
- ■ Healthcare
- ■ Technology
- ■ Energy
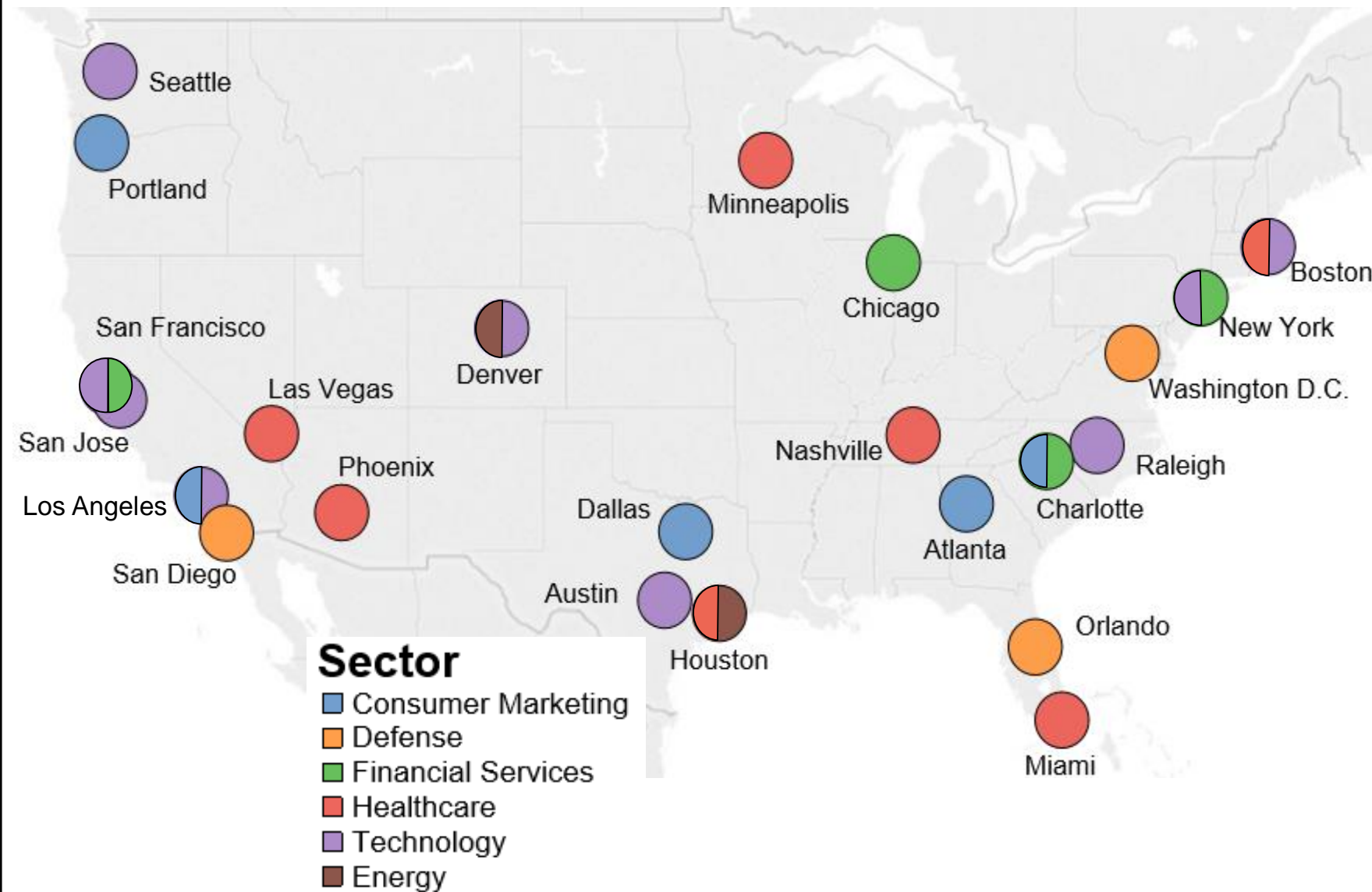
Source: Yardi® Matrix

- 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

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The Investment Decision Making Process

① Intellectual Capital

② Business Climate

③ Weather

Don't need all three to enter a market

Civic Leadership

Business incentives supporting the creation and retention of Intellectual Capital nodes

Amenities that support the attraction and retention of talent

Access to high quality education for the poor

Will to maintain effective Urban Policing

① High Job Growth

③ Obstacles to New Supply

② Favorable Demographics

College Educated, 22 to 40 year-olds

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

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Technology's Impact

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

"Play"
Retail

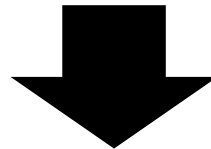Existing lower end retail will merge with office to salvage value

Experience driven- less so "things"

Industrial replaces retail space

"Work"
Office

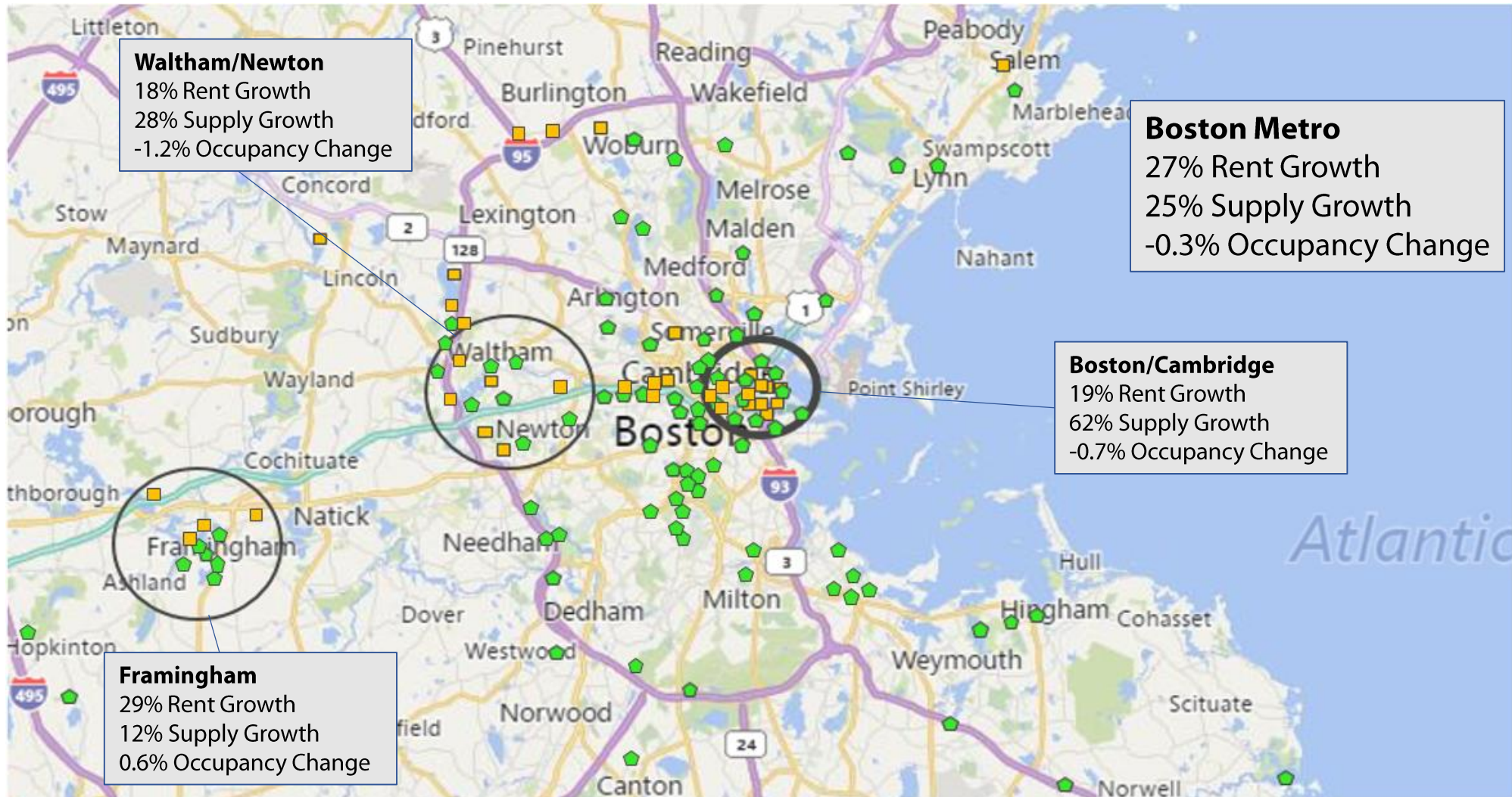Will merge with retail experiences and short term living experiences

⬇

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**

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Boston Intellectual Capital Nodes

Waltham/Newton
18% Rent Growth
28% Supply Growth
-1.2% Occupancy Change

Boston Metro
27% Rent Growth
25% Supply Growth
-0.3% Occupancy Change

Boston/Cambridge
19% Rent Growth
62% Supply Growth
-0.7% Occupancy Change

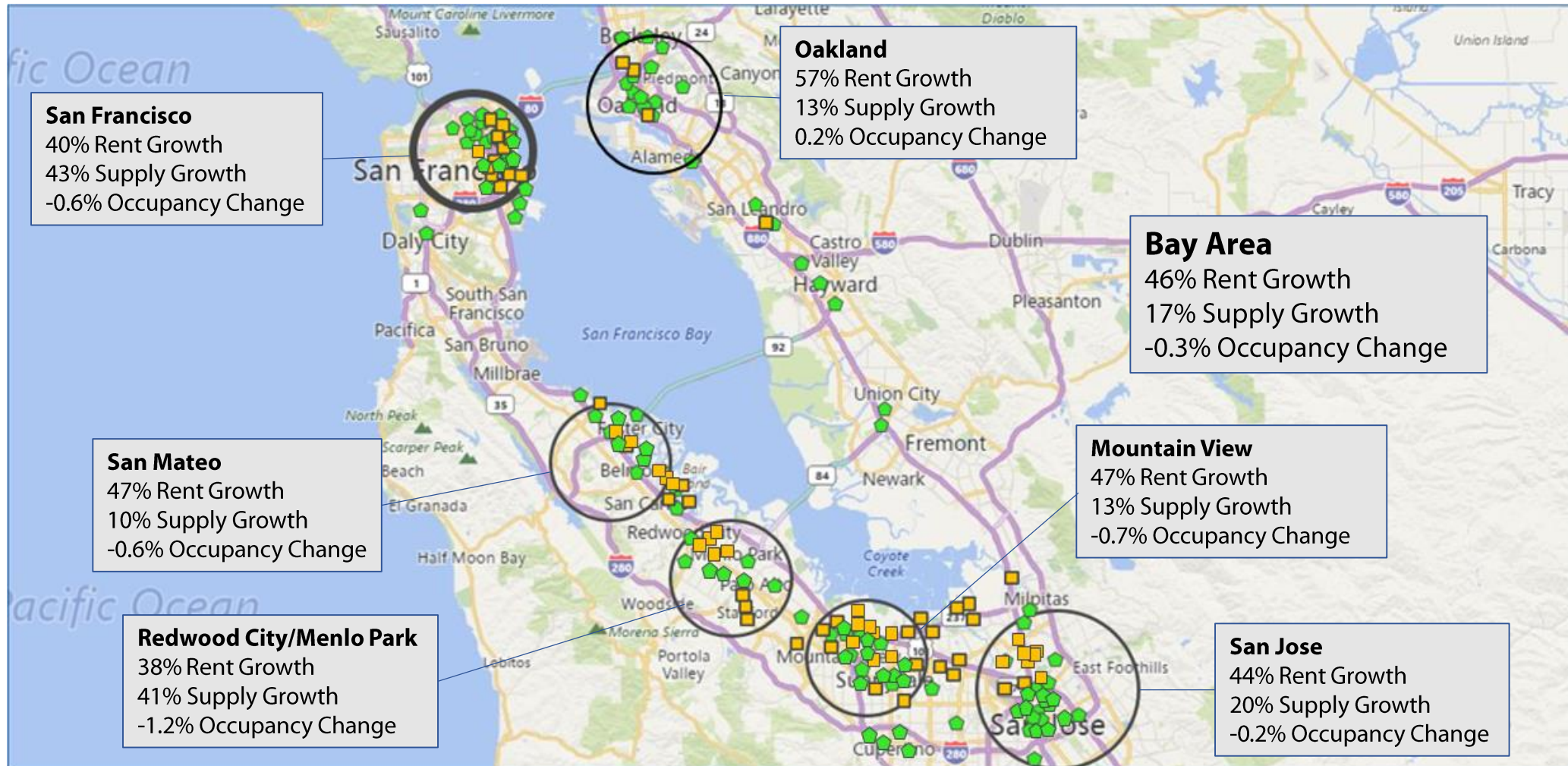**Framingham**
29% Rent Growth
12% Supply Growth
0.6% Occupancy Change
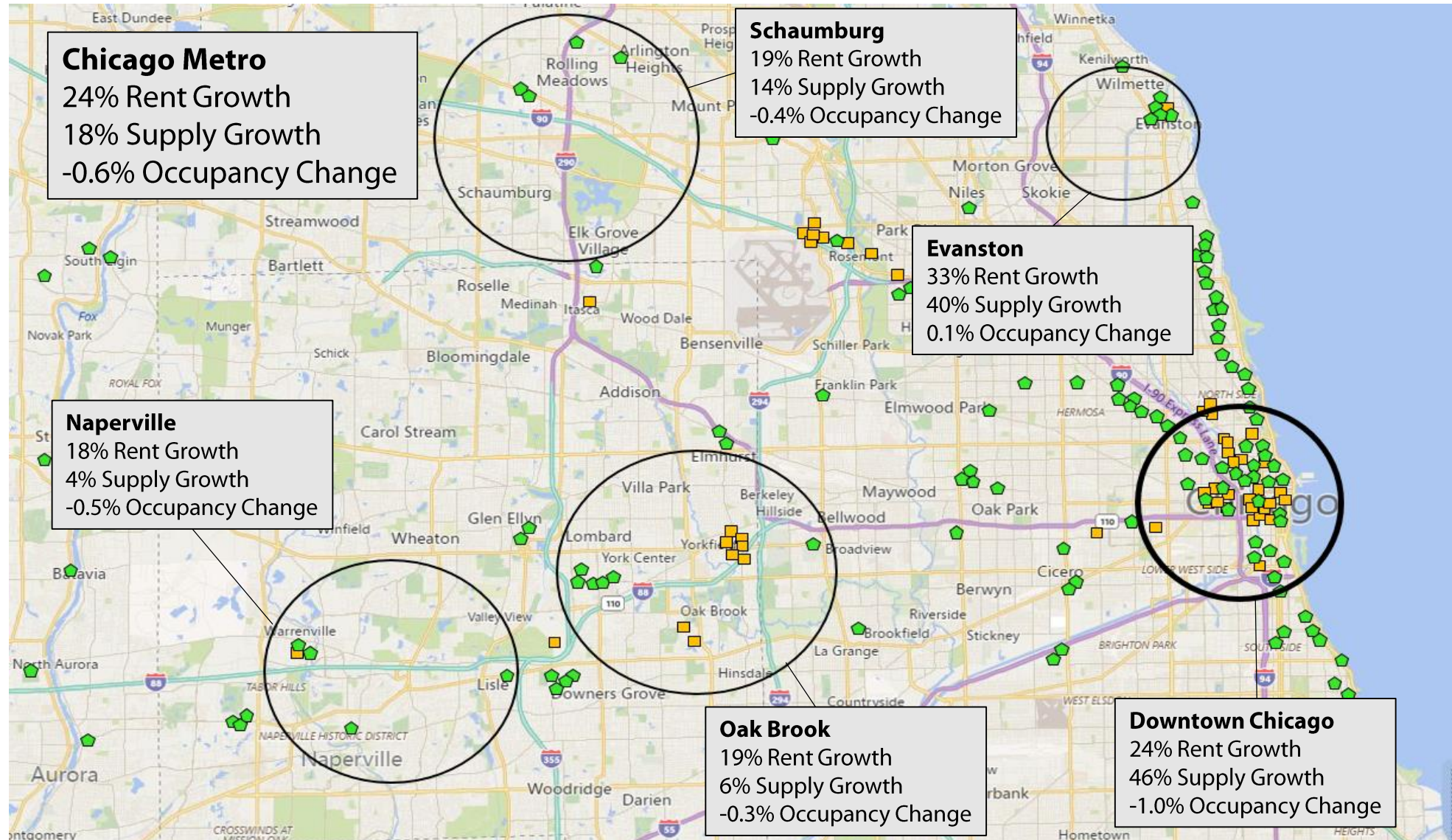
Source: Yardi®Matrix

* Multifamily rent growth based on May 2012 through May 2017
* Change in multifamily occupancy based on April 2016 through April 2017

□ Office Development

⬠ Multifamily Development

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San Francisco Intellectual Capital Nodes

Oakland
57% Rent Growth
13% Supply Growth
0.2% Occupancy Change

San Francisco
40% Rent Growth
43% Supply Growth
-0.6% Occupancy Change

Bay Area
46% Rent Growth
17% Supply Growth
-0.3% Occupancy Change

San Mateo
47% Rent Growth
10% Supply Growth
-0.6% Occupancy Change

Mountain View
47% Rent Growth
13% Supply Growth
-0.7% Occupancy Change

Redwood City/Menlo Park
38% Rent Growth
41% Supply Growth
-1.2% Occupancy Change

San Jose
44% Rent Growth
20% Supply Growth
-0.2% Occupancy Change

Source: Yardi® Matrix

* Multifamily rent growth based on May 2012 through May 2017
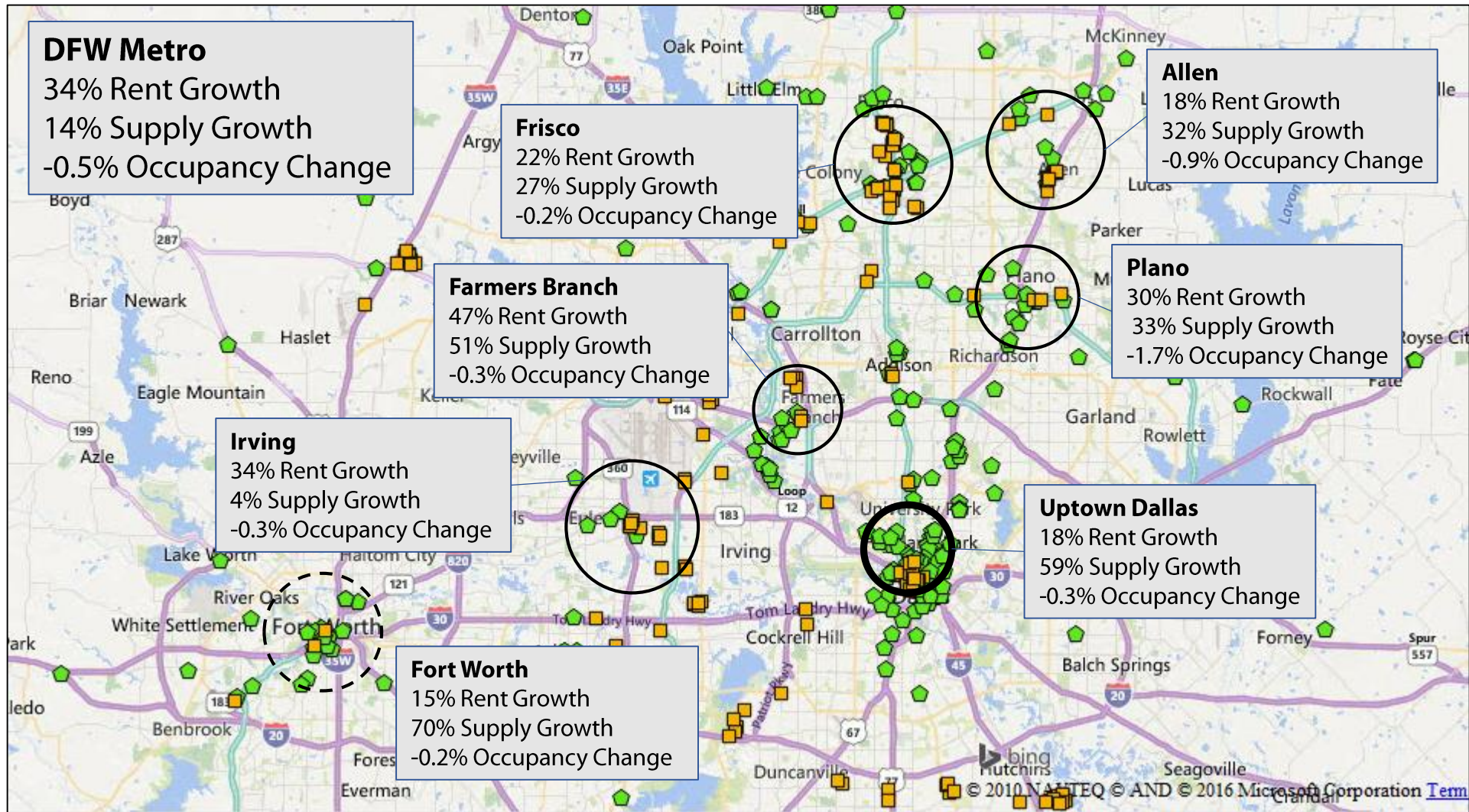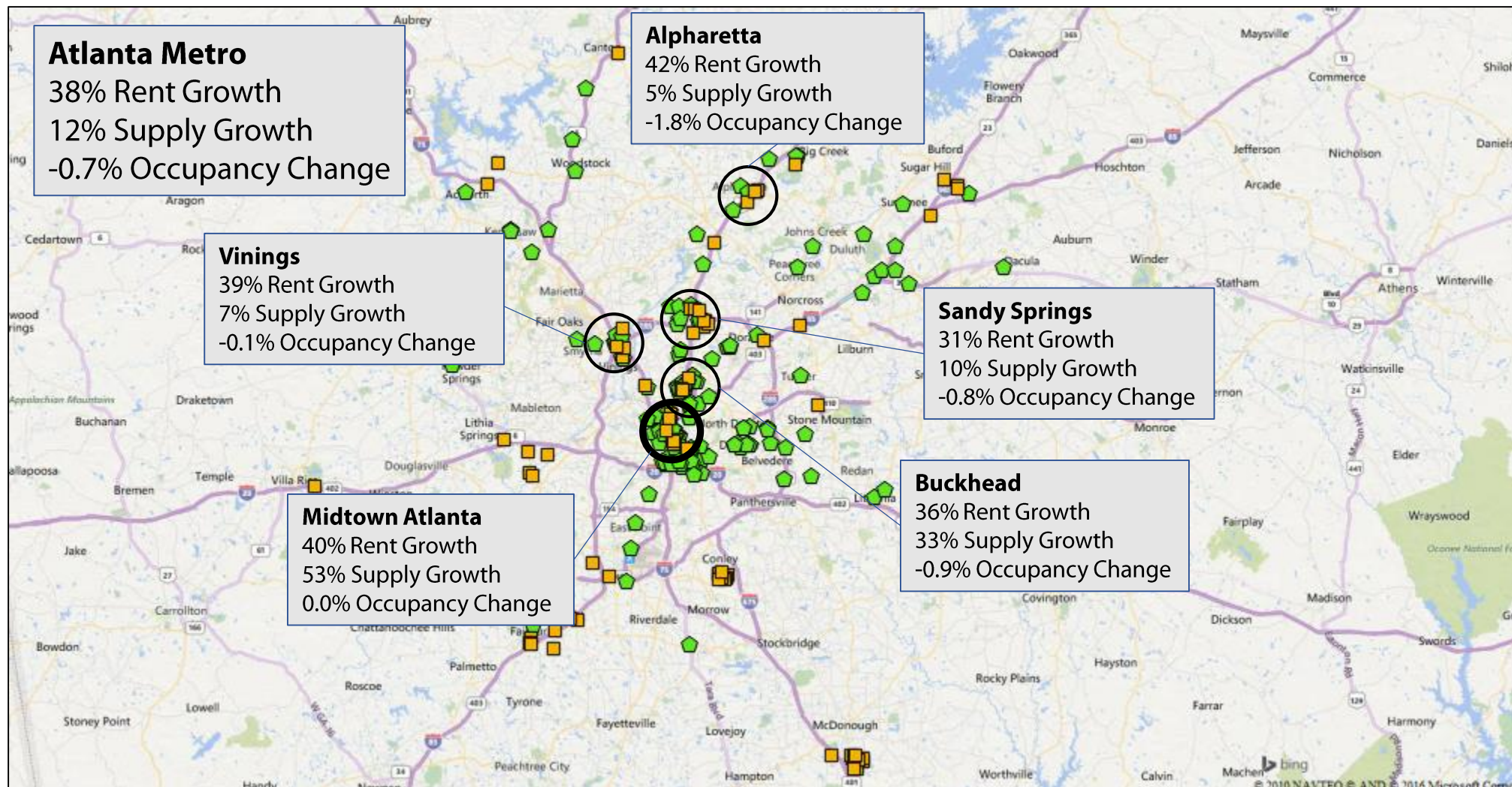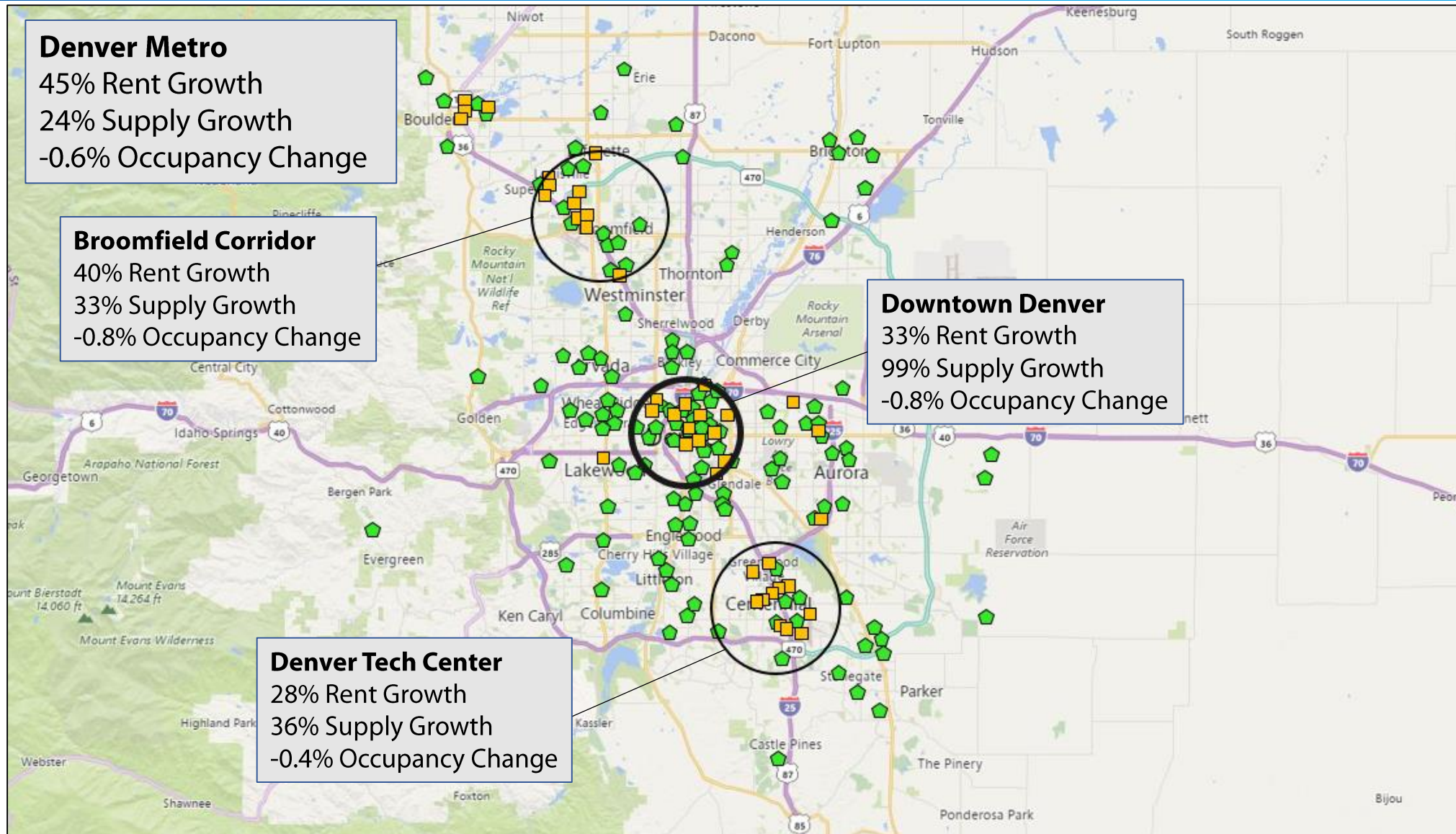* Change in multifamily occupancy based on April 2016 through April 2017

■ Office Development
⬠ Multifamily Development

Chicago Intellectual Capital Nodes

Chicago Metro
24% Rent Growth
18% Supply Growth
-0.6% Occupancy Change

Schaumburg
19% Rent Growth
14% Supply Growth
-0.4% Occupancy Change

Evanston
33% Rent Growth
40% Supply Growth
0.1% Occupancy Change

Naperville
18% Rent Growth
4% Supply Growth
-0.5% Occupancy Change

Oak Brook
19% Rent Growth
6% Supply Growth
-0.3% Occupancy Change

Downtown Chicago
24% Rent Growth
46% Supply Growth
-1.0% Occupancy Change

■ Office Development

⬠ Multifamily Development

Source: Yardi® Matrix

* Multifamily rent growth based on May 2012 through May 2017
* Change in multifamily occupancy based on April 2016 through April 2017

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Dallas Intellectual Capital Nodes

DFW Metro
34% Rent Growth
14% Supply Growth
-0.5% Occupancy Change

Frisco
22% Rent Growth
27% Supply Growth
-0.2% Occupancy Change

Allen
18% Rent Growth
32% Supply Growth
-0.9% Occupancy Change

Plano
30% Rent Growth
33% Supply Growth
-1.7% Occupancy Change

Farmers Branch
47% Rent Growth
51% Supply Growth
-0.3% Occupancy Change

Irving
34% Rent Growth
4% Supply Growth
-0.3% Occupancy Change

Uptown Dallas
18% Rent Growth
59% Supply Growth
-0.3% Occupancy Change

Fort Worth
15% Rent Growth
70% Supply Growth
-0.2% Occupancy Change

Source: Yardi®Matrix
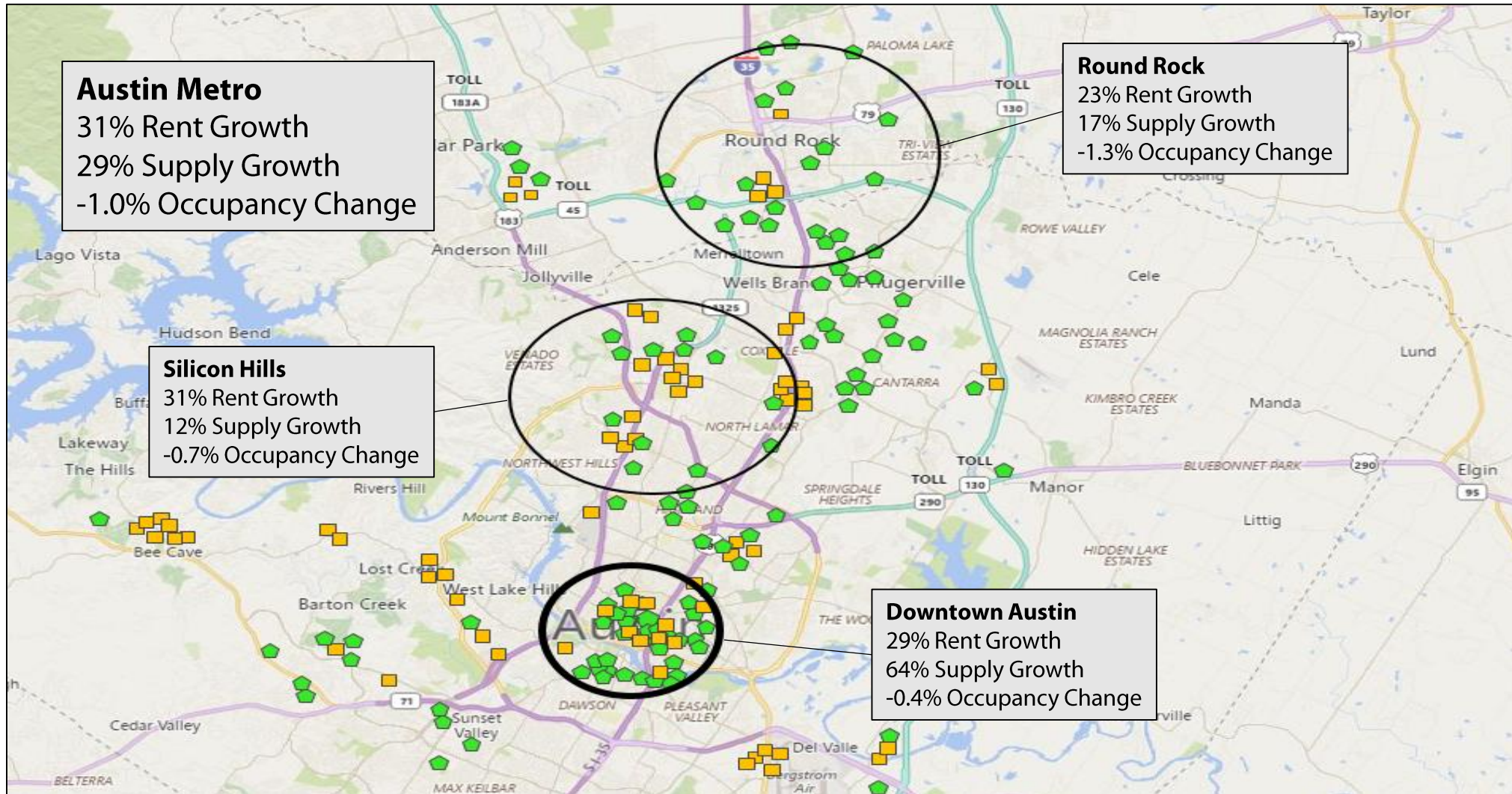
* Multifamily rent growth based on May 2012 through May 2017
* Change in multifamily occupancy based on April 2016 through April 2017

■ Office Development

⬠ Multifamily Development

✔YARDI

Atlanta Intellectual Capital Nodes

Atlanta Metro
38% Rent Growth
12% Supply Growth
-0.7% Occupancy Change

Alpharetta
42% Rent Growth
5% Supply Growth
-1.8% Occupancy Change

Vinings
39% Rent Growth
7% Supply Growth
-0.1% Occupancy Change

Sandy Springs
31% Rent Growth
10% Supply Growth
-0.8% Occupancy Change

Midtown Atlanta
40% Rent Growth
53% Supply Growth
0.0% Occupancy Change

Buckhead
36% Rent Growth
33% Supply Growth
-0.9% Occupancy Change

Source: Yardi® Matrix

* Multifamily rent growth based on May 2012 through May 2017
* Change in multifamily occupancy based on April 2016 through April 2017

■ Office Development

⬠ Multifamily Development

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Denver Intellectual Capital Nodes

Denver Metro
45% Rent Growth
24% Supply Growth
-0.6% Occupancy Change

Broomfield Corridor
40% Rent Growth
33% Supply Growth
-0.8% Occupancy Change

Downtown Denver
33% Rent Growth
99% Supply Growth
-0.8% Occupancy Change

Denver Tech Center
28% Rent Growth
36% Supply Growth
-0.4% Occupancy Change

Source: Yardi® Matrix

* Multifamily rent growth based on May 2012 through May 2017
* Change in multifamily occupancy based on April 2016 through April 2017

▪ Office Development
⬟ Multifamily Development

⊁ YARDI

Austin Intellectual Capital Nodes

Austin Metro
31% Rent Growth
29% Supply Growth
-1.0% Occupancy Change

Round Rock
23% Rent Growth
17% Supply Growth
-1.3% Occupancy Change

Silicon Hills
31% Rent Growth
12% Supply Growth
-0.7% Occupancy Change

Downtown Austin
29% Rent Growth
64% Supply Growth
-0.4% Occupancy Change

Source: Yardi® Matrix

* Multifamily rent growth based on May 2012 through May 2017
* Change in multifamily occupancy based on April 2016 through April 2017

▢ Office Development

⬠ Multifamily Development

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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**

Source: Yardi® Matrix

YARDI

Conclusion – Contact

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  - Jeff.Adler@Yardi.com, 1-800-866-1124 x2403

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