



BENCH  **MARKS**
SAN FRANCISCO



A Newmark Company

MAY 10, 2016

MEGATRENDS

1. Commercial real estate moves in cycles, and there is evidence we are approaching the mature phase of the cycle. . .
2. . . .Yet capital continues to flow into commercial real estate
3. There is tension between the preferences of tech talent and occupancy costs
4. Bay Area economic growth will support continuing CRE expansion, even as headwinds shape our future

Source: NGKF Research; May 2016

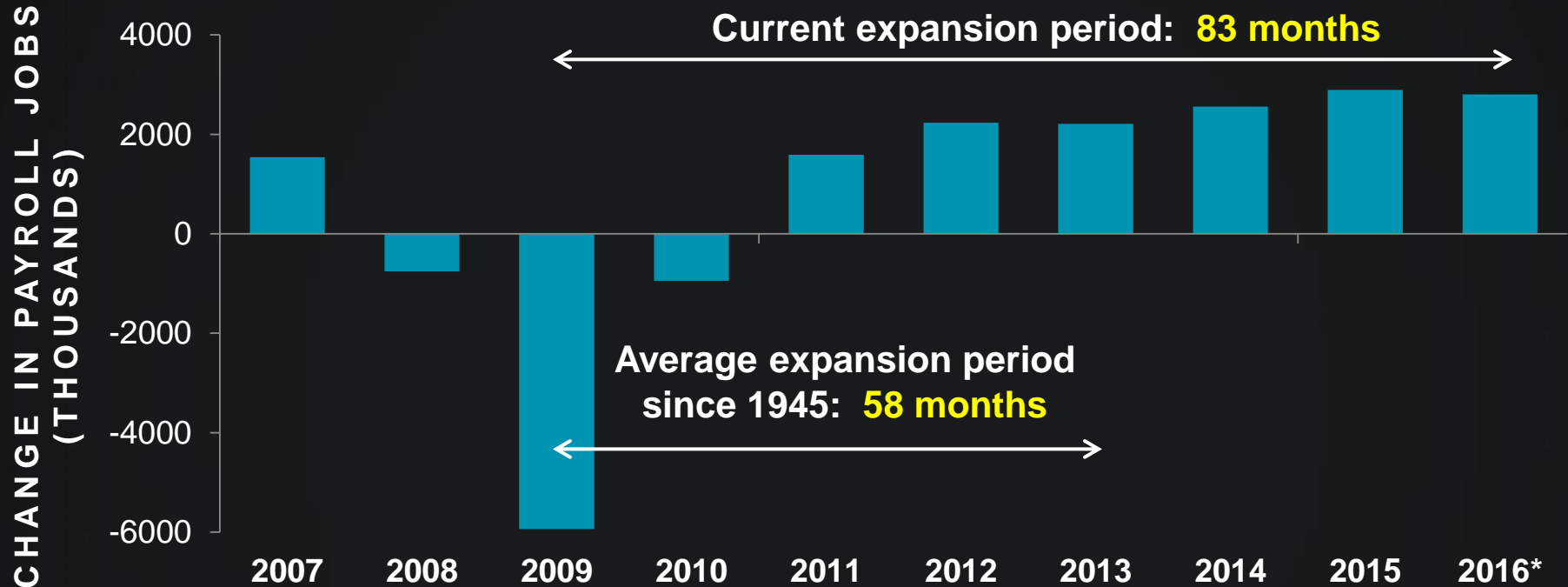
MEGATREND #1: APPROACHING THE MATURE PHASE OF THE COMMERCIAL REAL ESTATE CYCLE



BENCHMARKS

MEGATREND #1: MATURE PHASE

Payroll Job Change | United States

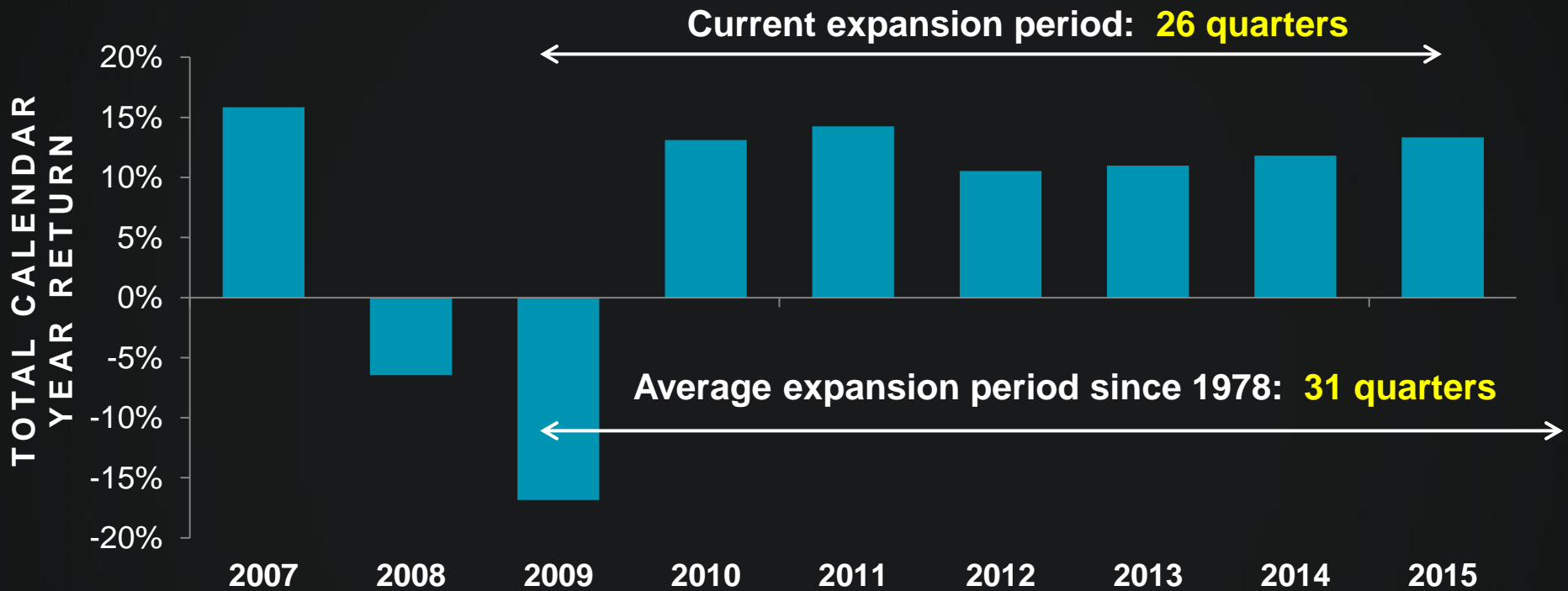


*12 months ending in March 2016

Source: U.S. Bureau of Labor Statistics, NGKF Research; May 2016

MEGATREND #1: MATURE PHASE

NCREIF Property Index | United States

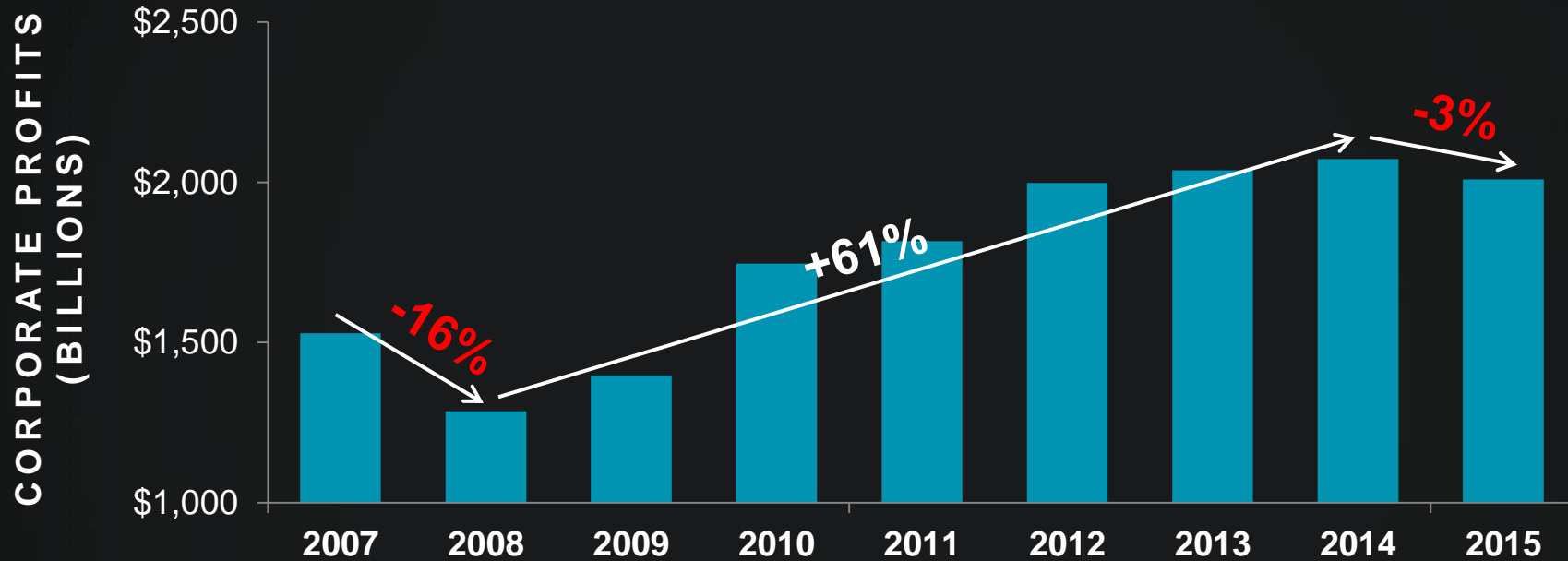


Note: Includes all asset classes

Source: NCREIF, NGKF Research; May 2016

MEGATREND #1: MATURE PHASE

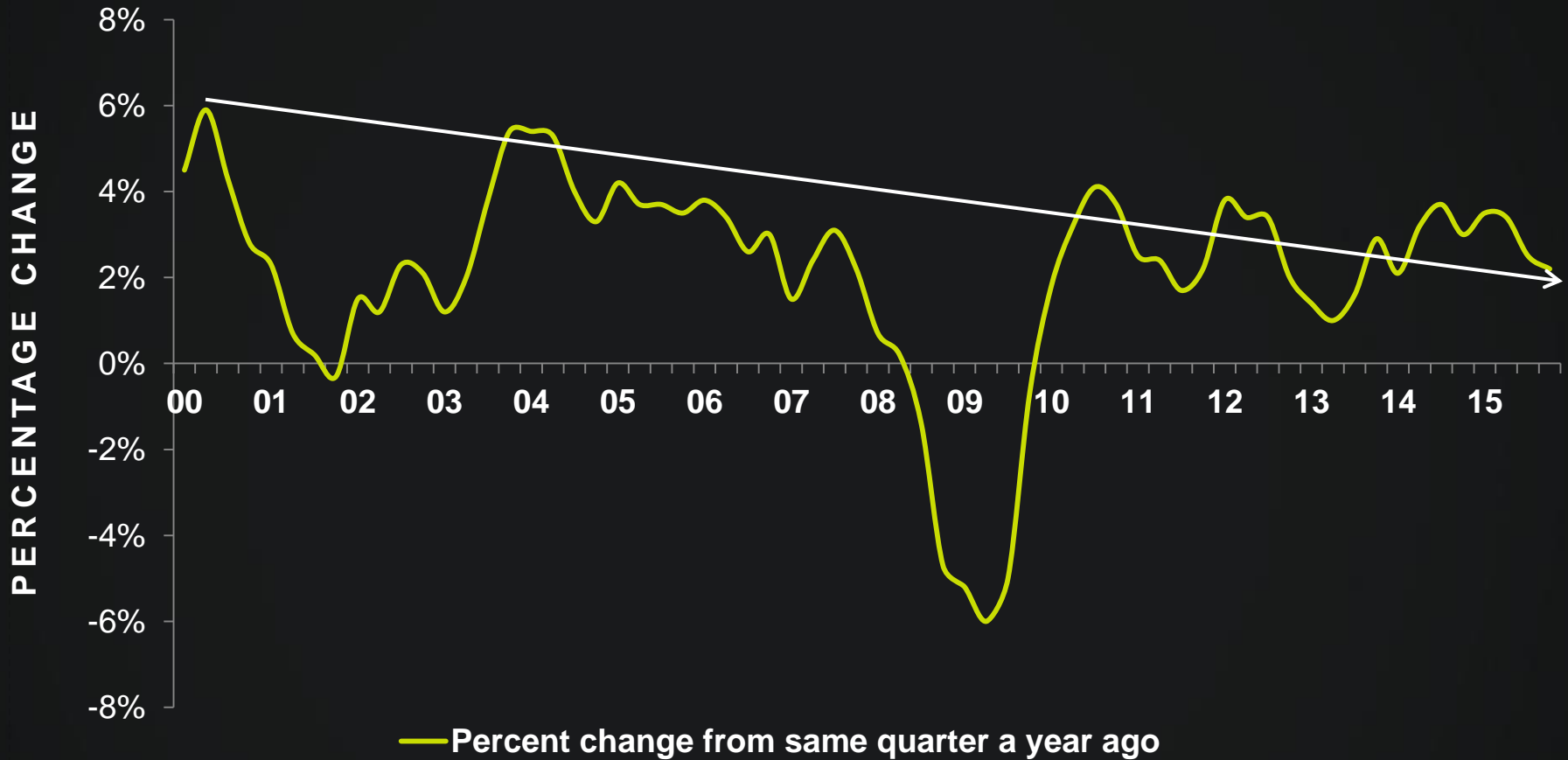
Corporate Profits | United States



Source: U.S. Department of Commerce, NGKF Research; May 2016

MEGATREND #1: MATURE PHASE

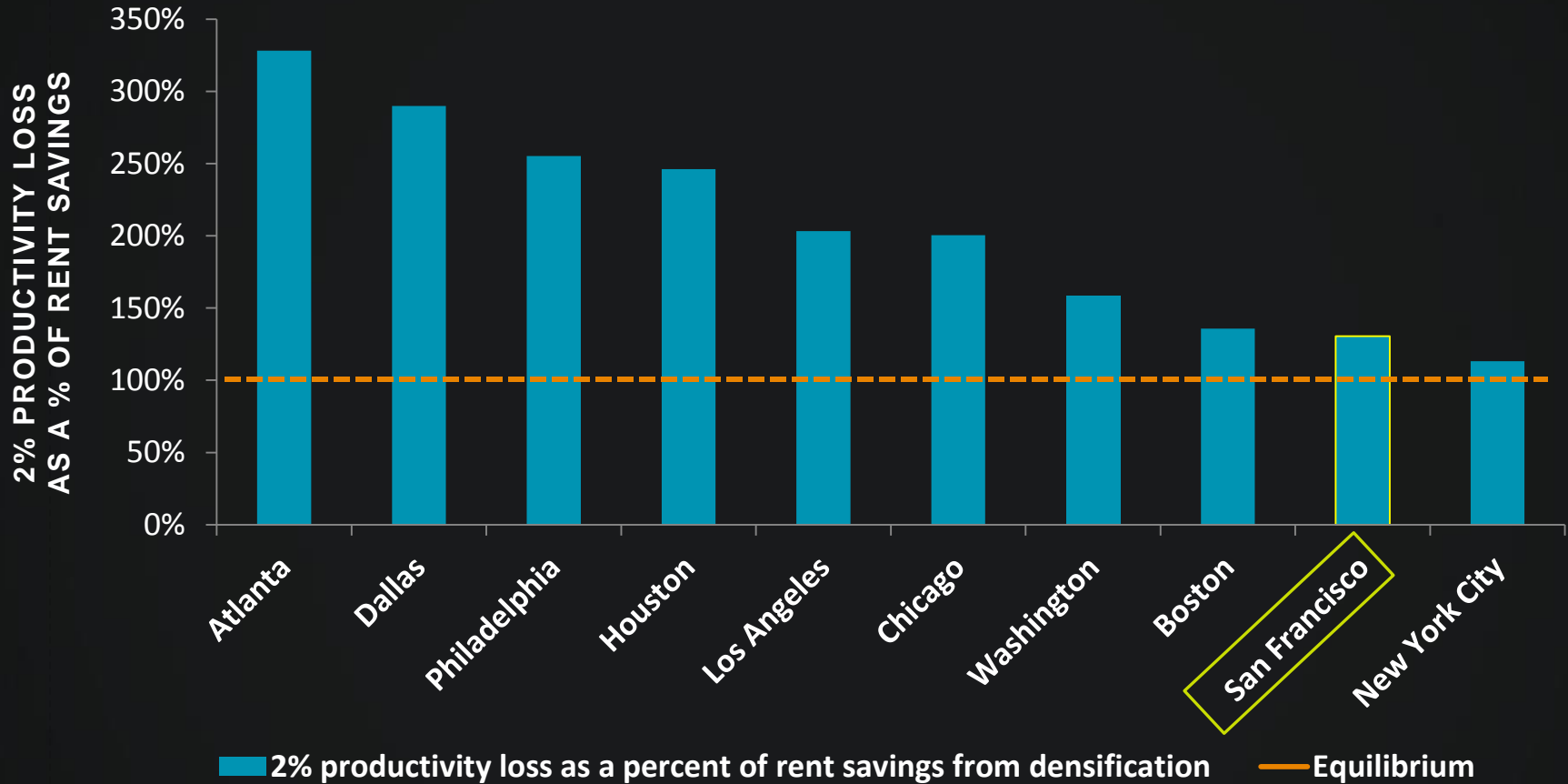
Non-Farm Business Worker Productivity | United States



Source: U.S. Bureau of Labor Statistics, NGKF Research; May 2016

MEGATREND #1: MATURE PHASE

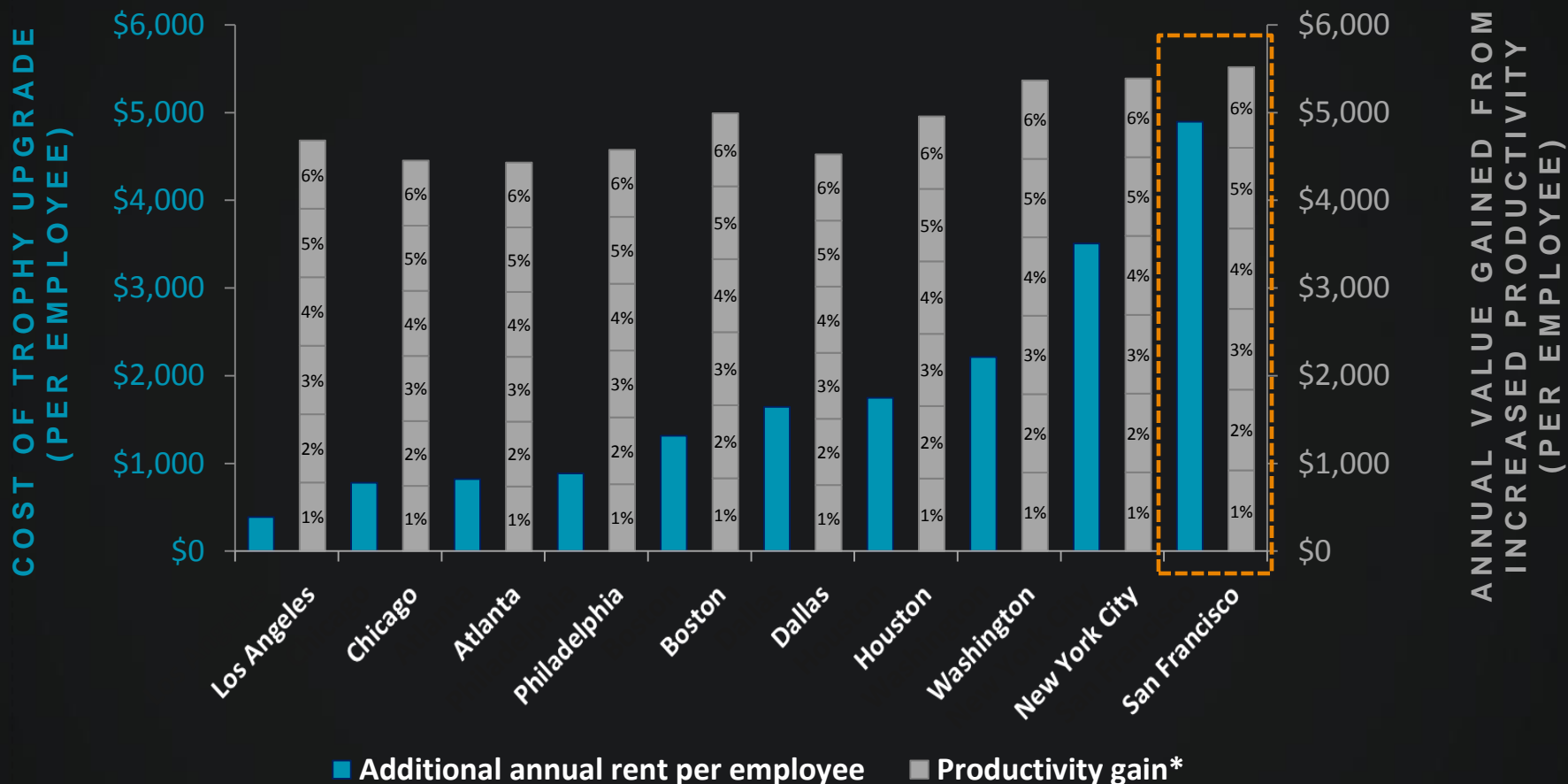
2% Productivity Loss Offsets Cost Savings From Densification



Note: Ten largest metropolitan areas by employment base in 2015; assumes 10% reduction of rentable space
Source: U.S. Bureau of Labor Statistics, NGKF Research; May 2016

MEGATREND #1: MATURE PHASE

Gains In Productivity Can Offset Cost of Trophy Upgrade



*Expressed as a percentage of annual wage

Note: Ten largest metropolitan areas by employment base in 2015; assumes 5% reduction of rentable space

Source: U.S. Bureau of Labor Statistics, NGKF Research; May 2016

MEGATREND #1: MATURE PHASE

What's Next? | Discipline is Critical in the Next 12-24 Months

- Bifurcation between leasing performance and capital investment will continue
- Investors should be more disciplined as we approach the end of the cycle
- Owners marketing trophy space should emphasize value of productivity enhancement to tenants
- Now is a time to own and manage high-quality assets

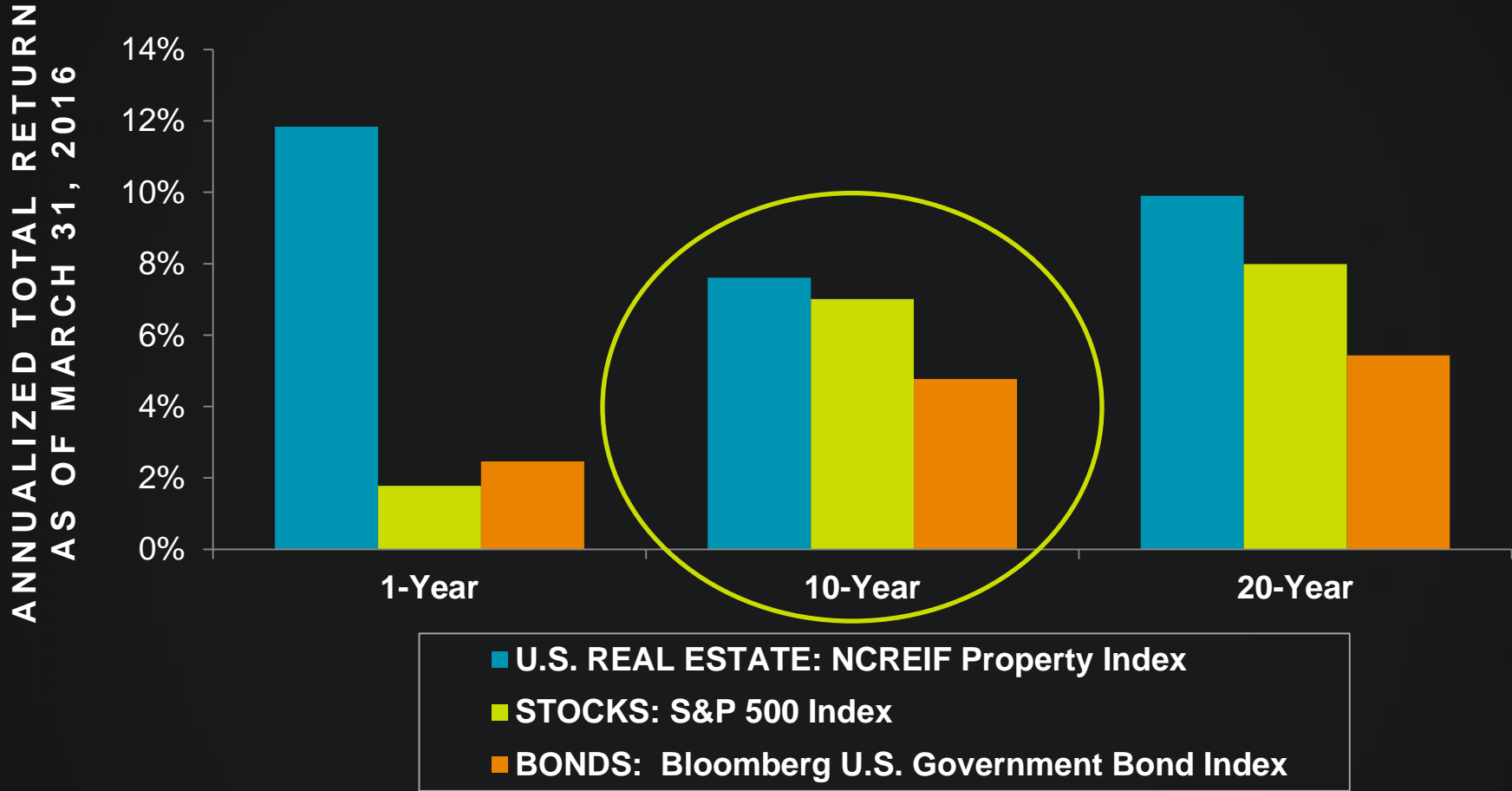
Source: NGKF Research; May 2016

MEGATREND #2: CAPITAL CONTINUES TO FLOW INTO COMMERCIAL REAL ESTATE



MEGATREND #2: CAPITAL FLOWING

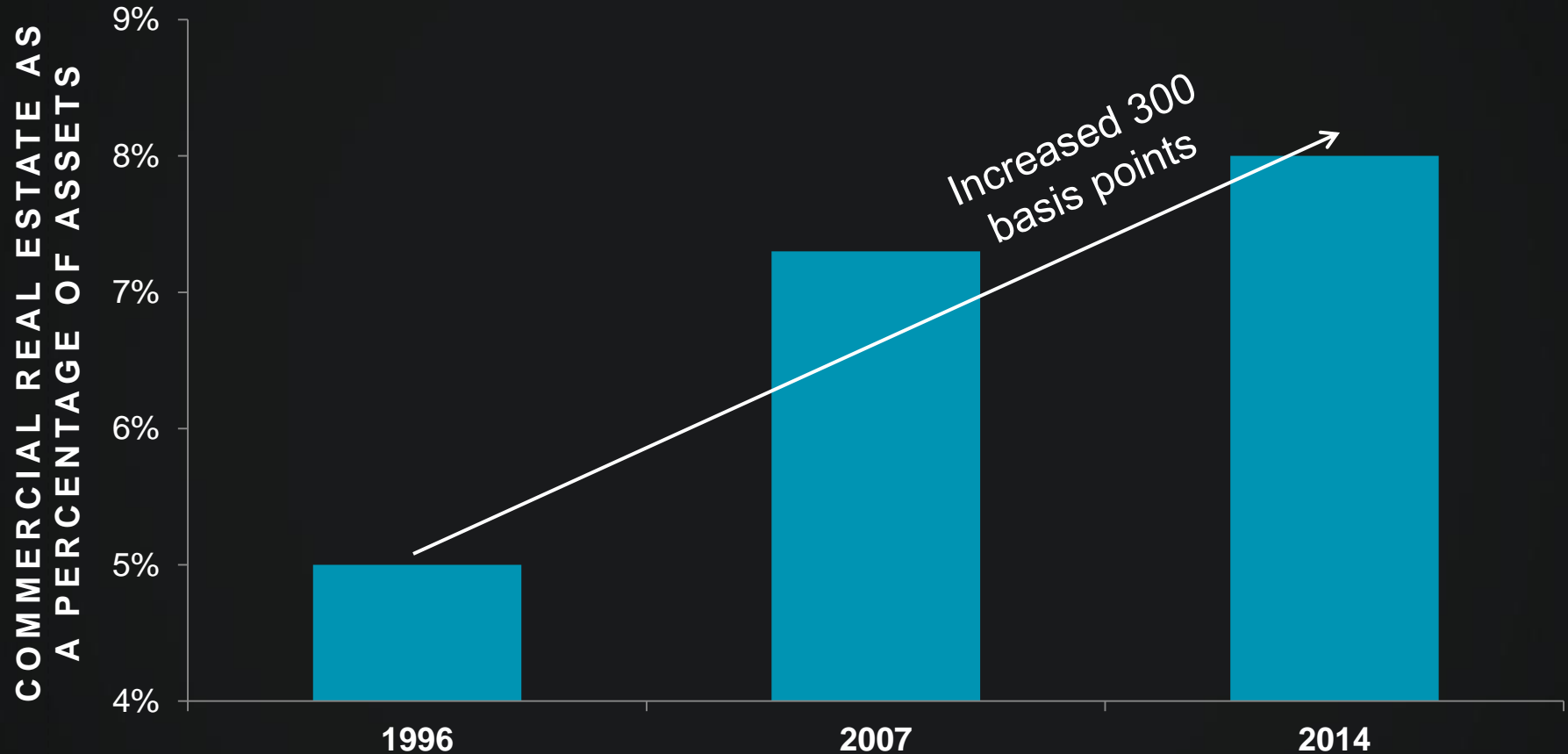
CRE Outperforms Stocks and Bonds



Source: NCREIF, Bloomberg, NGKF Research; May 2016

MEGATREND #2: CAPITAL FLOWING

Institutional Allocations to Commercial Real Estate Have Increased

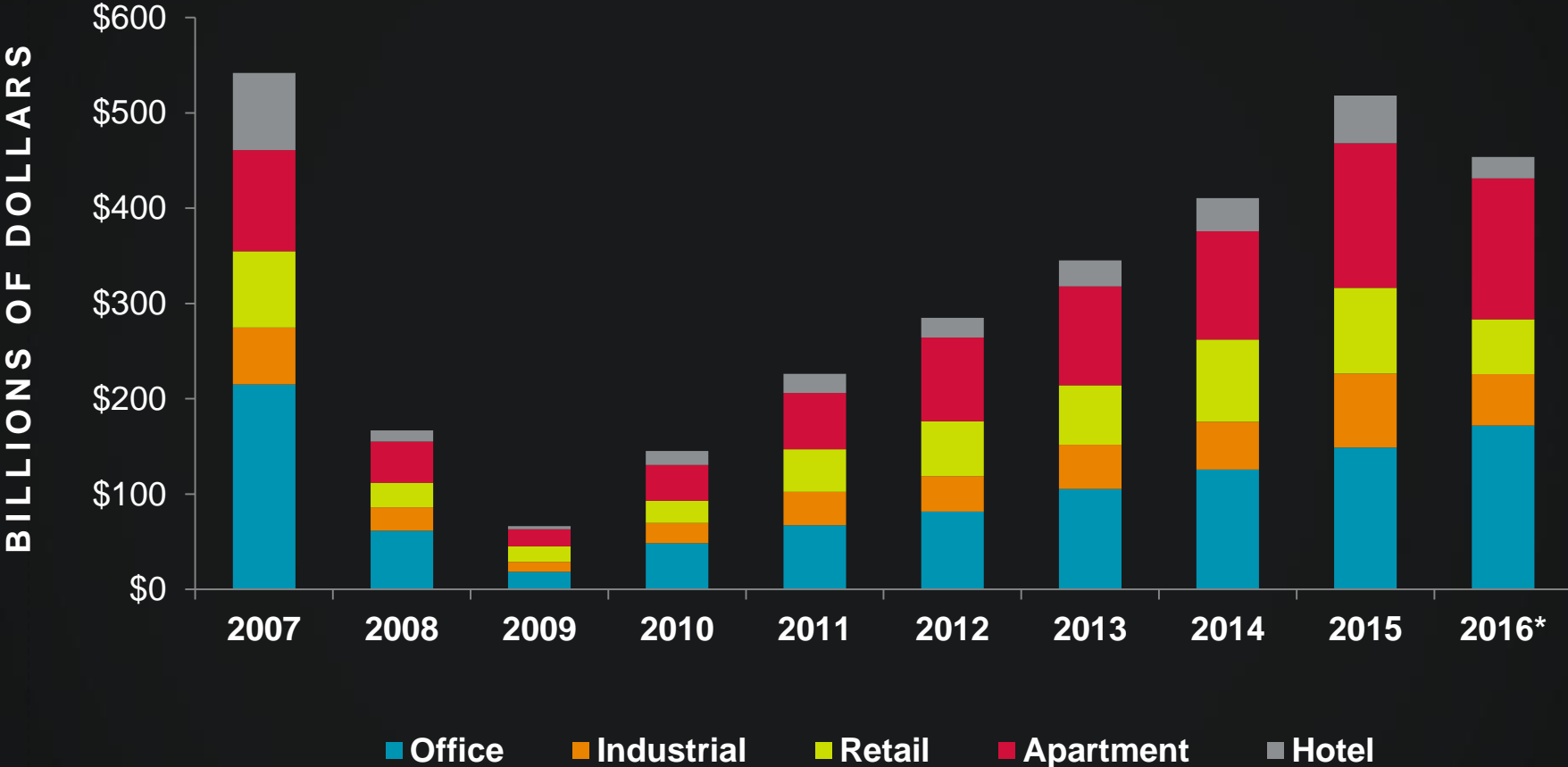


Note: Includes only private institutional allocations; 2014 is most recent data available

Source: PREA, NGKF Research; May 2016

MEGATREND #2: CAPITAL FLOWING

U.S. Investment Sales Volume May Have Peaked But Remains Robust



*2016 YTD through February, annualized and seasonally adjusted
Source: Real Capital Analytics, NGKF Research; May 2016

MEGATREND #2: CAPITAL FLOWING

Bay Area Has Remained Steadfast on AFIRE Investor Survey

2010

#1 Washington

#2 New York

#3 San Francisco

#4 Boston

#5 Los Angeles

2016

#1 New York

#2 Los Angeles

#3 San Francisco

#4 Washington

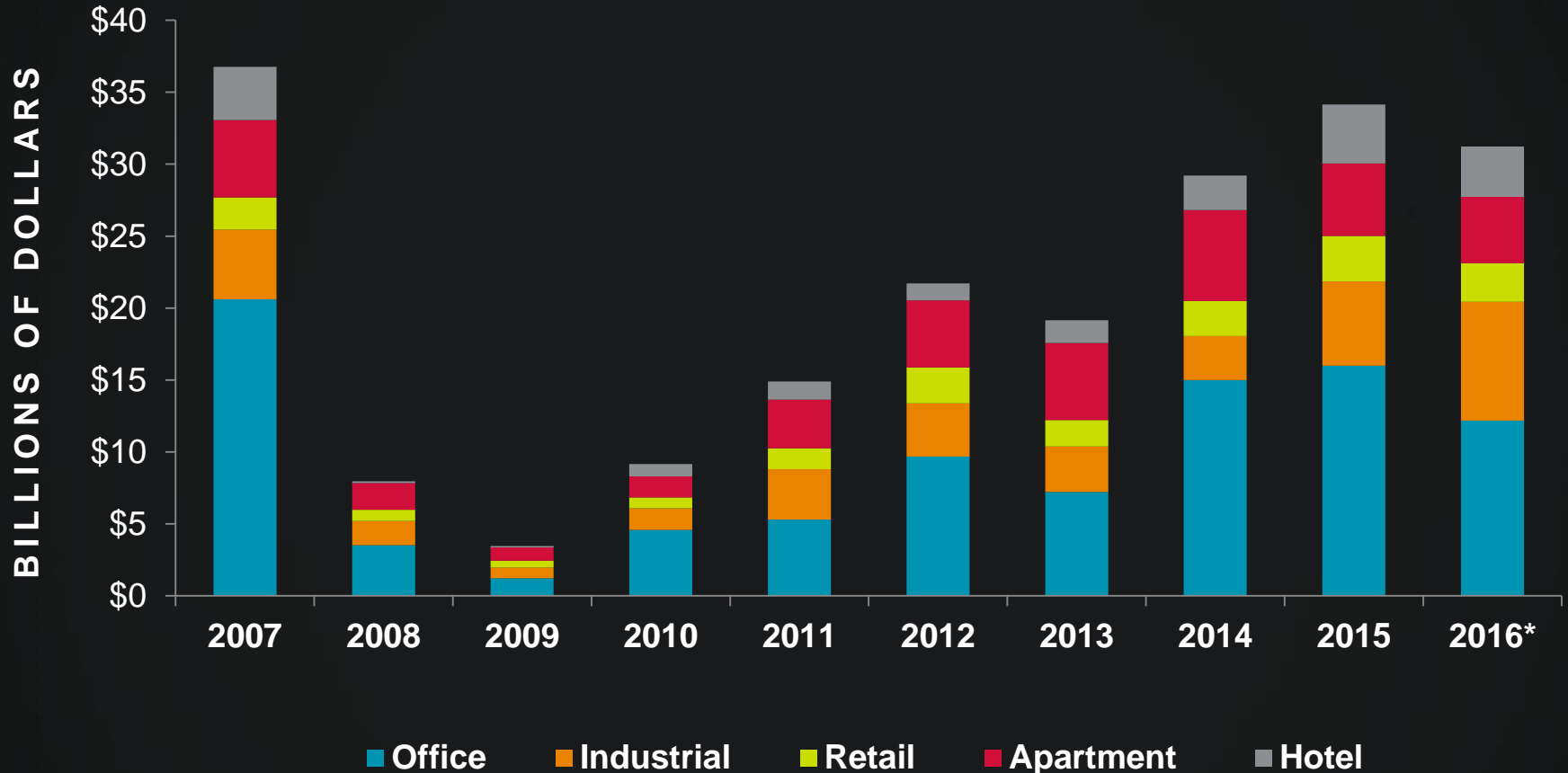
#5 Seattle/Boston

Note: Ranking among U.S. markets

Source: AFIRE, NGKF Research; May 2016

MEGATREND #2: CAPITAL FLOWING

Bay Area Investment Sales Volume May Have Peaked But Remains Robust



*2016 YTD through February, annualized and seasonally adjusted
Source: Real Capital Analytics, NGKF Research; May 2016

MEGATREND #2: CAPITAL FLOWING

What's Next? | Bay Area Office and Apartment Sales in Next 12-24 Months

- Apartment cap rates: Flat or edging up overall
- Office cap rates: Edging up for commodity product
- Sales volume: Slightly below 2015 levels
- Sales prices: Flat or edging down overall

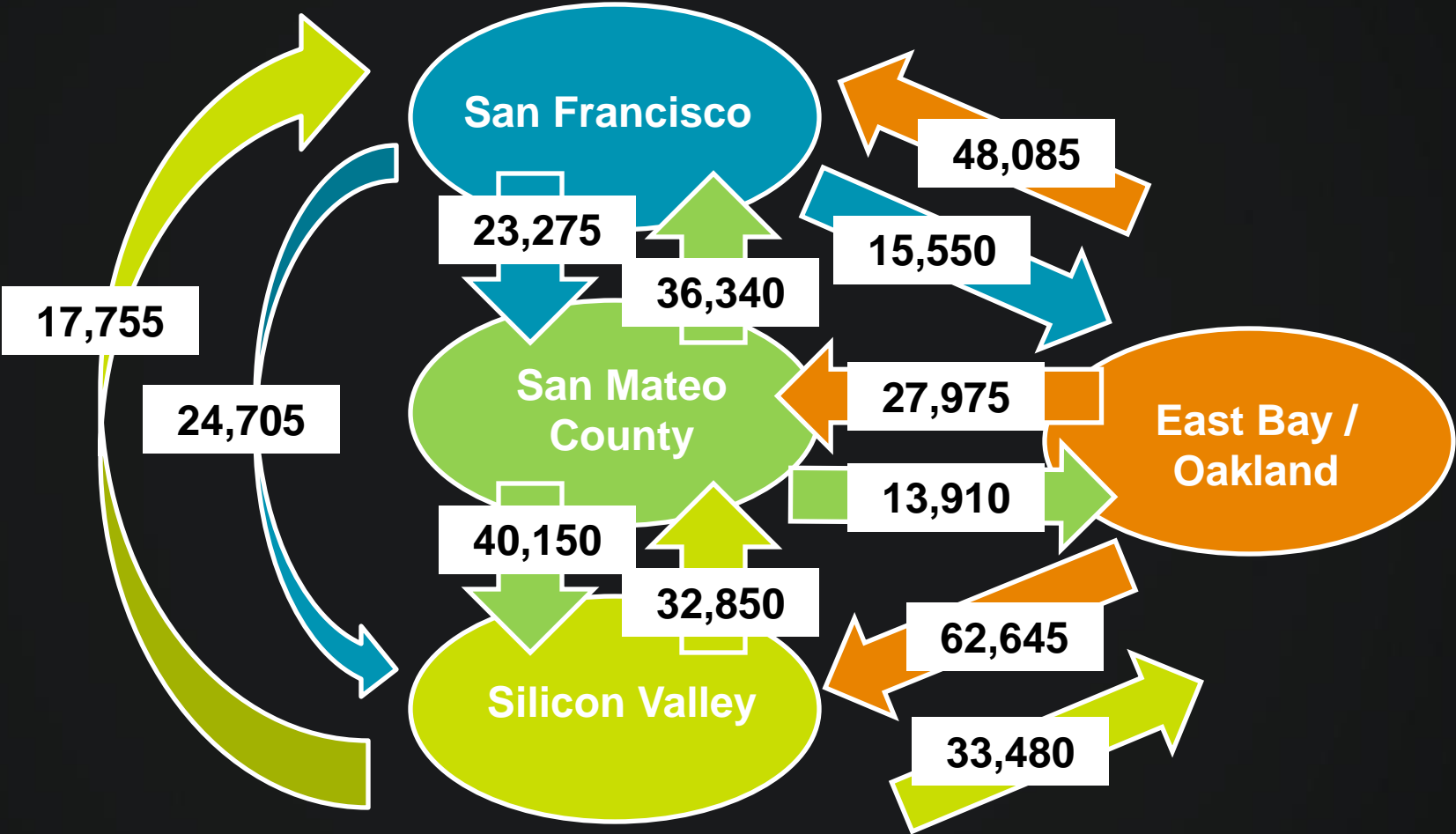
Source: NGKF Research; May 2016

MEGATREND #3: TENSION BETWEEN PREFERENCES OF TECH TALENT AND OPERATING COSTS



MEGATREND #3: TENSION

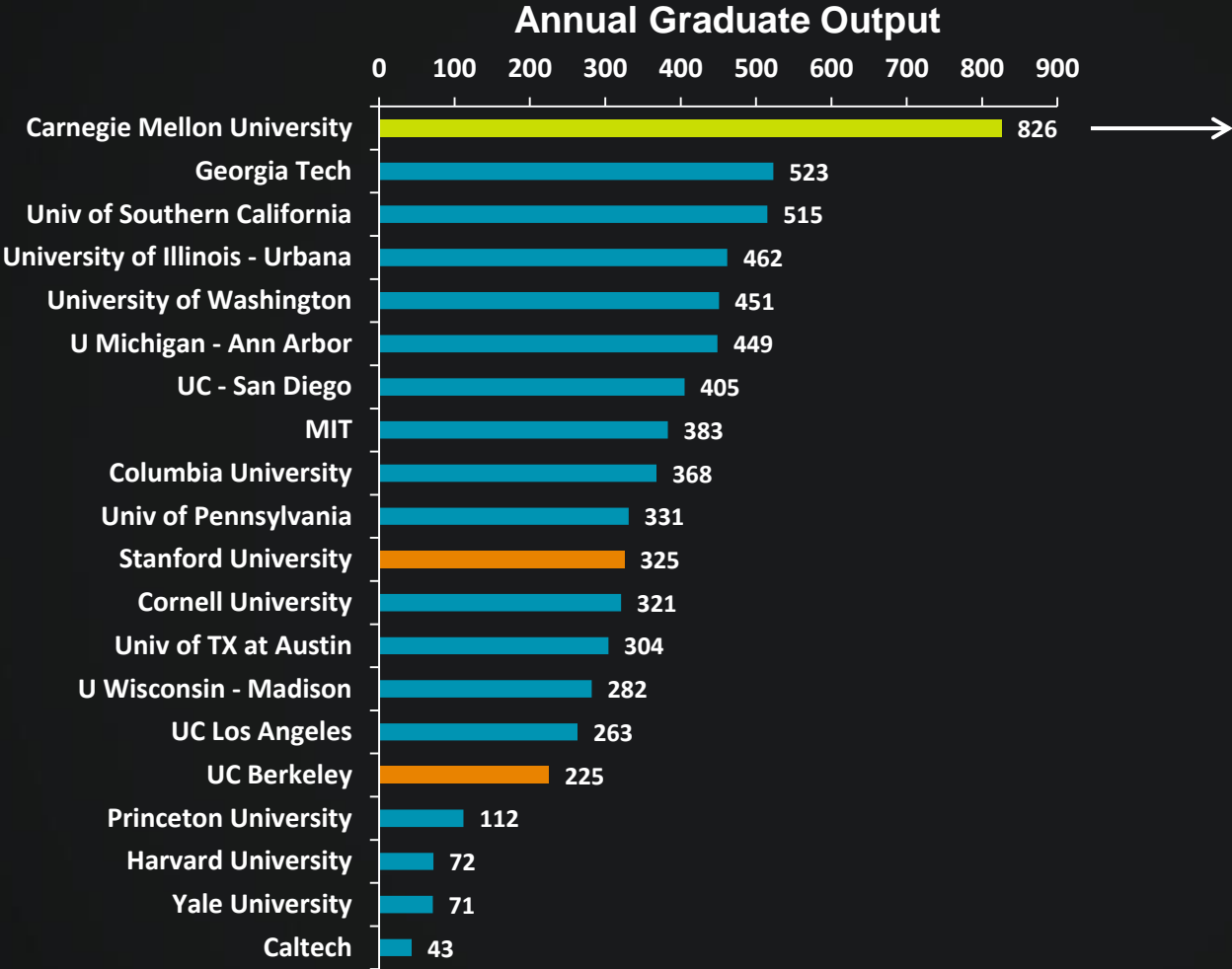
Residents Commuting Outside Their Home County



Note: Data reflect 2014 commuting patterns for private-sector workers with annual incomes greater than \$40,000
Source: Census.gov, NGKF Research; May 2016

MEGATREND #3: TENSION

Top 20 Innovative Computer Science and Engineering Programs

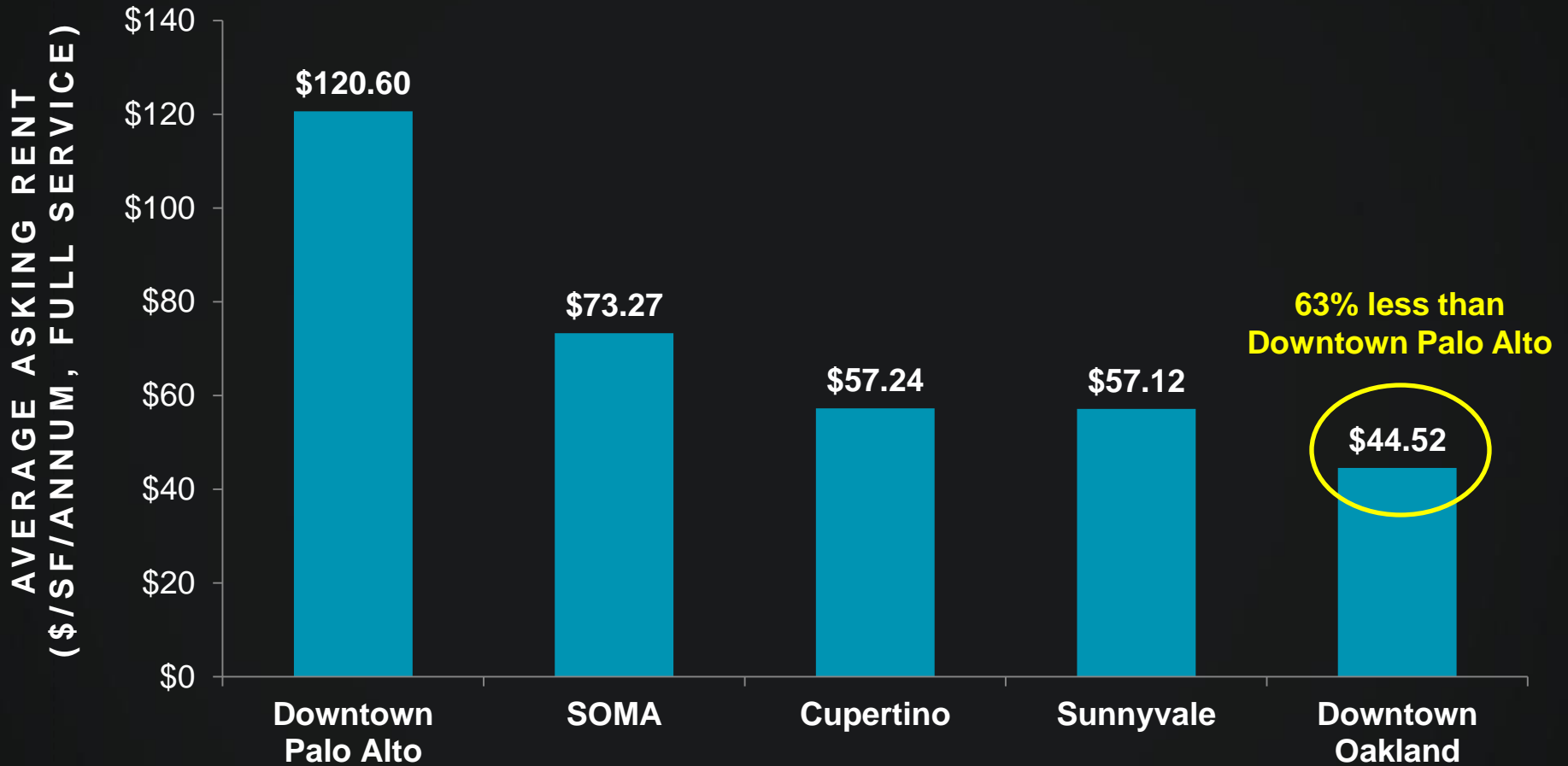


Pittsburgh's entry-level base salary for computer science graduates = **22% less** than Silicon Valley's

Source: Computer Science Degree Hub, NGKF Research; May 2016

MEGATREND #3: TENSION

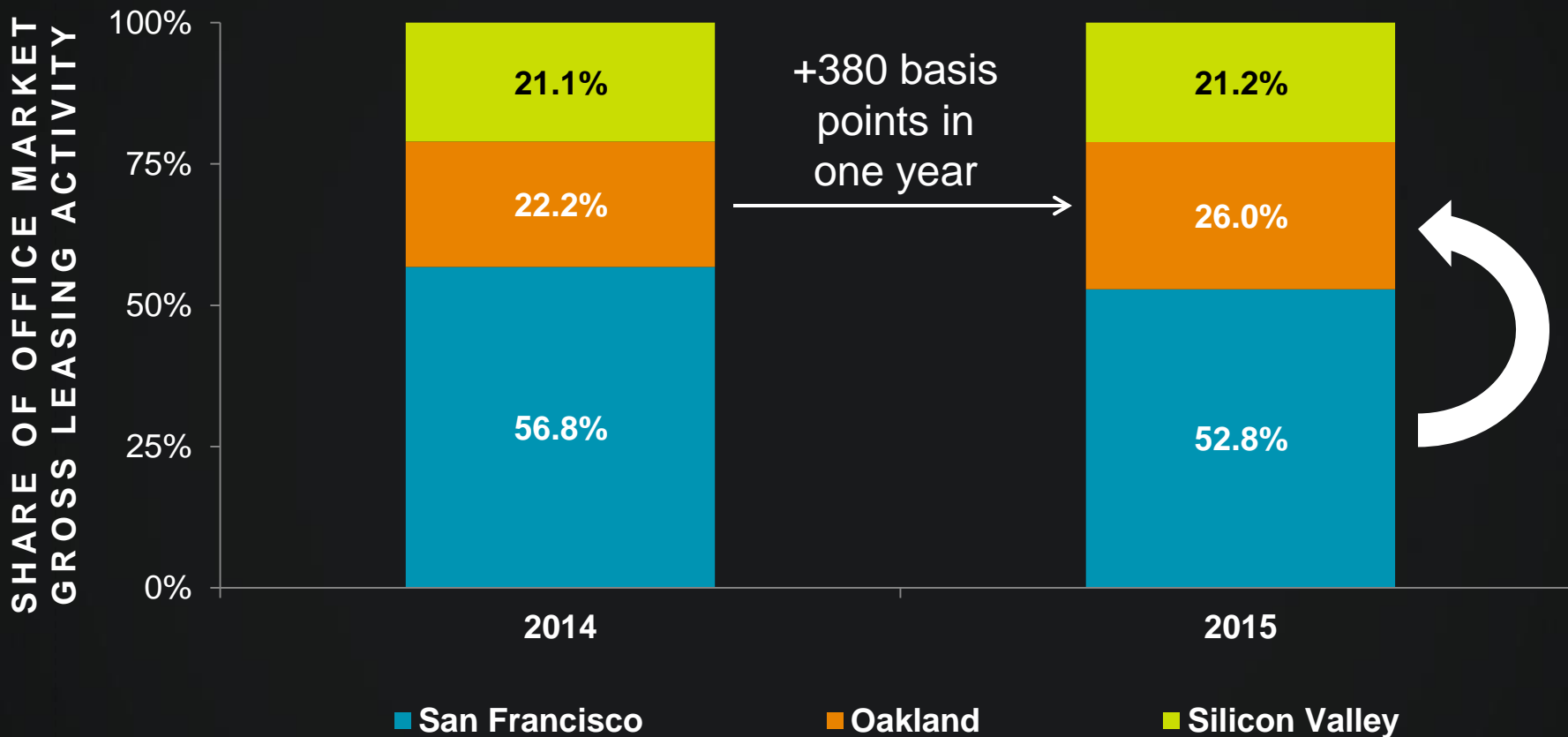
Office Market Rent Variability | Selected Tech-Heavy Submarkets at Q1 2016



Source: NGKF Research; May 2016

MEGATREND #3: TENSION

Share of Office Market Gross Leasing Activity



Note: Includes new leases, expansions, consolidations, renewals, and subleases
Source: CoStar, NGKF Research; May 2016

MEGATREND #3: TENSION

What's Next? | Bay Area Still Appeals to Tech Firms/Talent, But Costs Are An Issue

- Oakland and other alternate options for tenants are here to stay, and that creates...
- ...a more competitive office environment. . .
- . . .and also greater utilization of infrastructure

Source: NGKF Research; May 2016

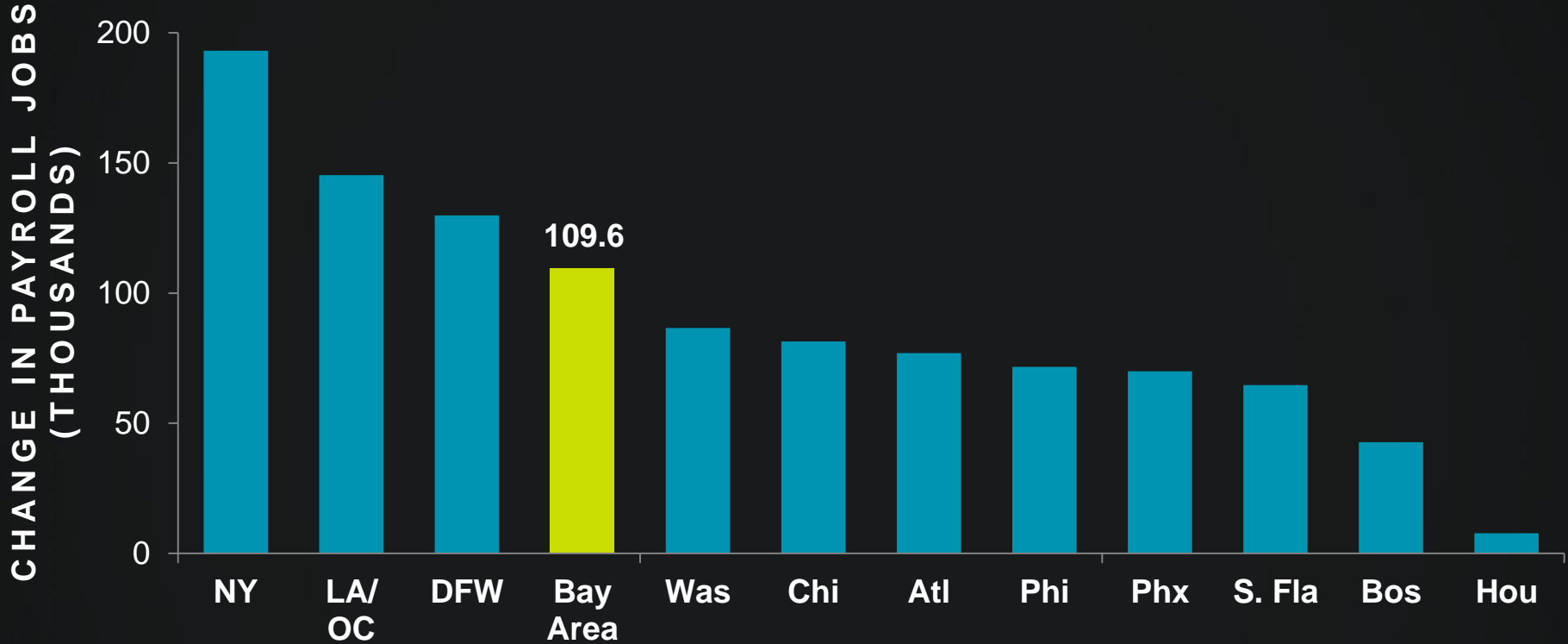
MEGATREND #4:
BAY AREA ECONOMIC GROWTH WILL SUPPORT
CONTINUING CRE EXPANSION, EVEN AS
HEADWINDS SHAPE OUR FUTURE



BENCH^{MARKS}

MEGATREND #4: GROWTH, HEADWINDS

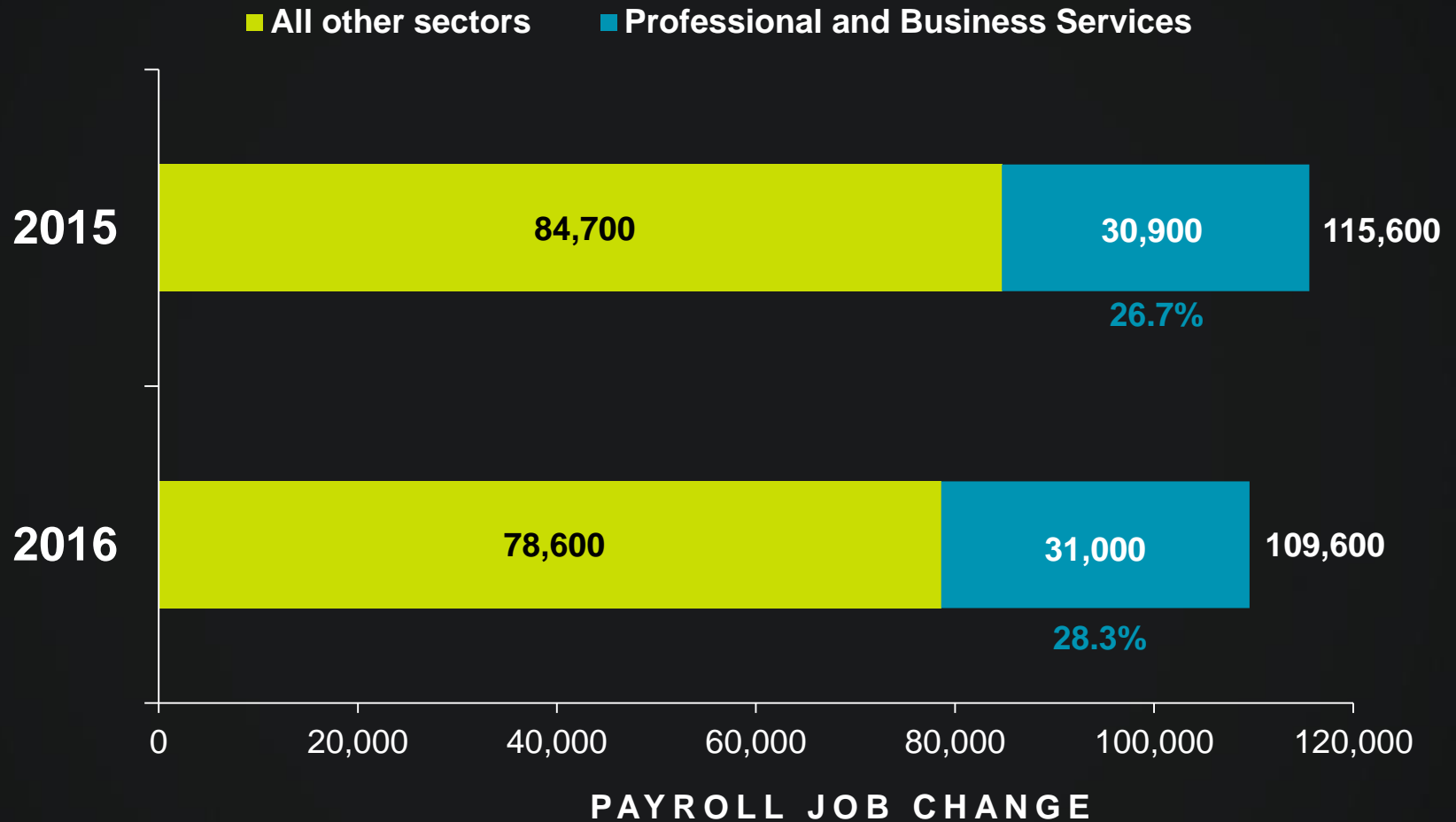
U.S. Payroll Job Change | 12 Months Ending March 2016



Note: Bay Area includes San Francisco/East Bay and San Jose metro areas
Source: U.S. Bureau of Labor Statistics, NGKF Research; May 2016

MEGATREND #4: GROWTH, HEADWINDS

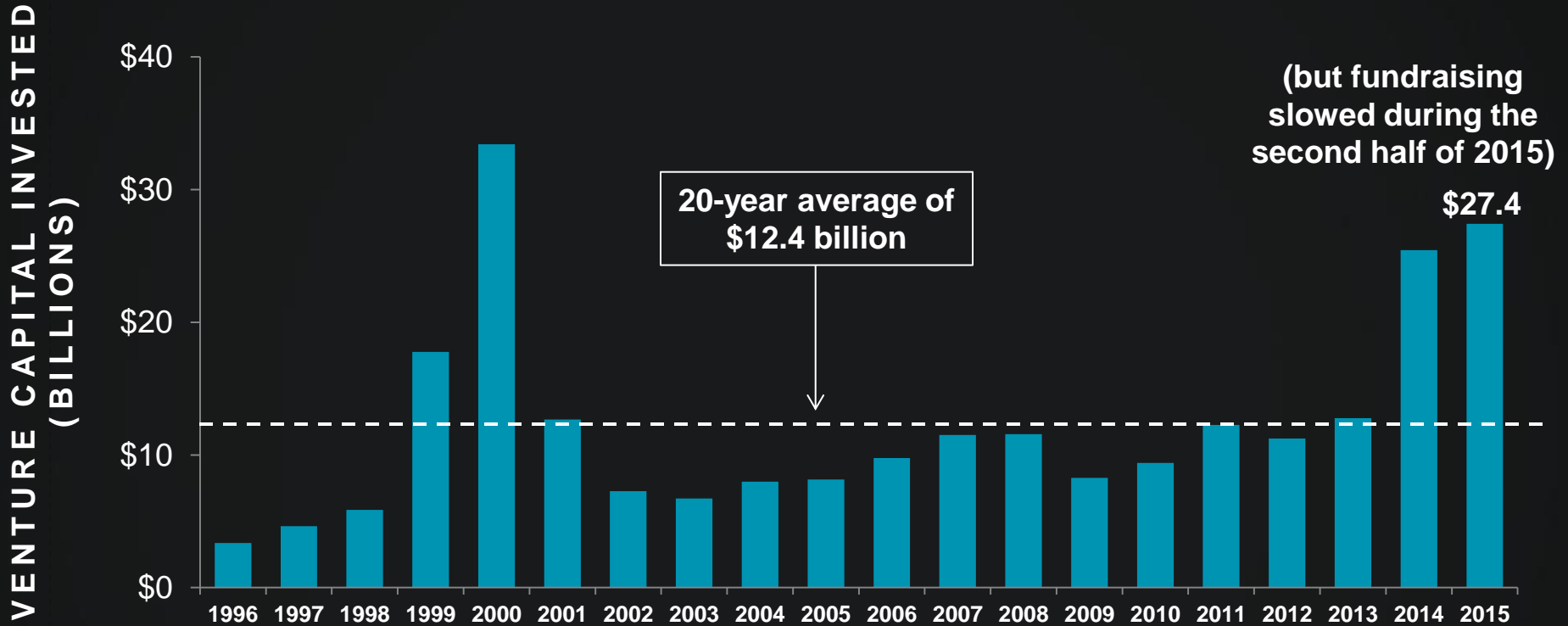
Bay Area Payroll Job Change by Type of Job | 12 Months Ending March 2015 vs. March 2016



Source: U.S. Bureau of Labor Statistics, NGKF Research; May 2016

MEGATREND #4: GROWTH, HEADWINDS

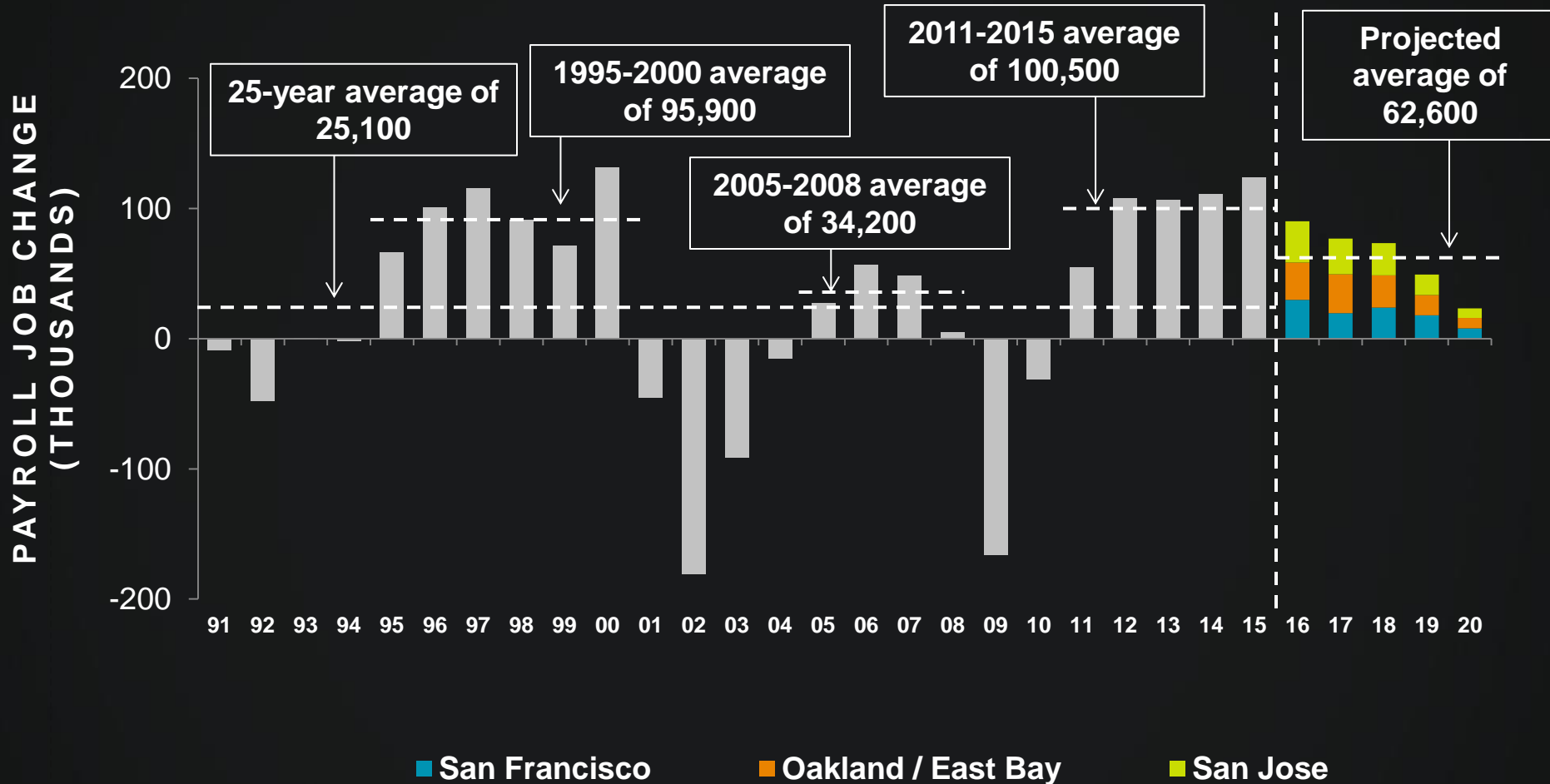
Venture Capital Invested | Silicon Valley



Source: National Venture Capital Association Yearbook, NGKF Research; May 2016

MEGATREND #4: GROWTH, HEADWINDS

Bay Area Job Growth to Continue But Decelerate



Source: Moody's, U.S. Bureau of Labor Statistics, NGKF Research; May 2016

MEGATREND #4: GROWTH, HEADWINDS

Sample of Technology Companies Hiring in the Bay Area | Early 2016



airbnb



UBER

Source: Datafox, TechCrunch, NGKF Research; May 2016

MEGATREND #4: GROWTH, HEADWINDS

Sample of Technology Companies Reducing Headcount in the Bay Area | Early 2016

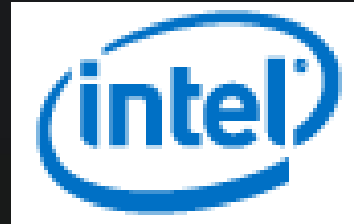


ZENEFITS

vmware®



mixpanel



Source: Datafox, TechCrunch, NGKF Research; May 2016

MEGATREND #4: GROWTH, HEADWINDS

What's Next? | Bay Area's Tailwinds Position it Well to Endure CRE Cycles

1. Workforce is among the most educated in the country, with the talent to fill available jobs
2. Household incomes are among the highest in the country, boosting spending
3. New technology is creating local economic opportunity, including in robotics, virtual reality, and autonomous driving

Source: NGKF Research; May 2016

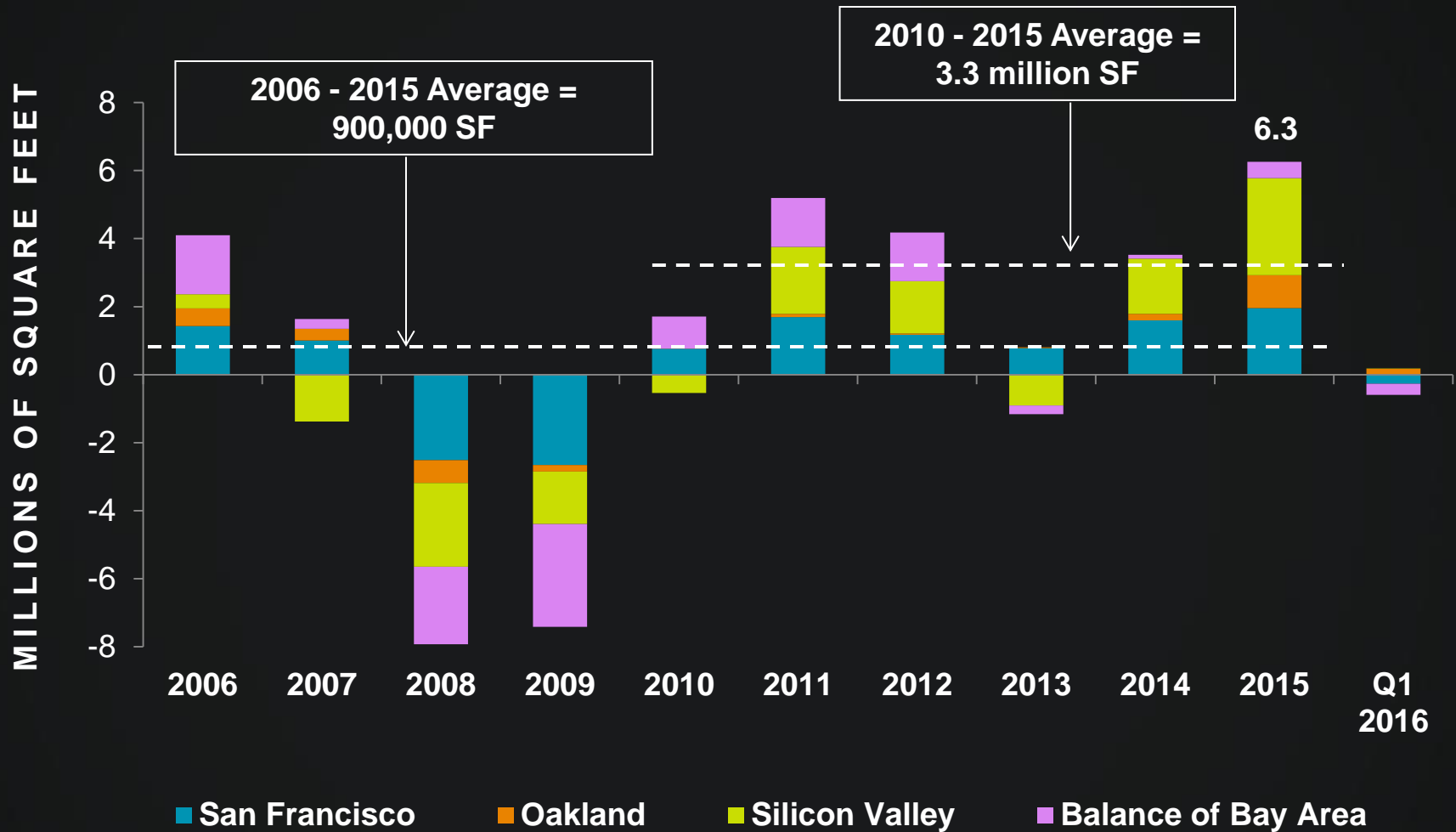
THE BAY AREA OFFICE MARKET



BENCH  **MARKS**

THE BAY AREA OFFICE MARKET

Net Absorption

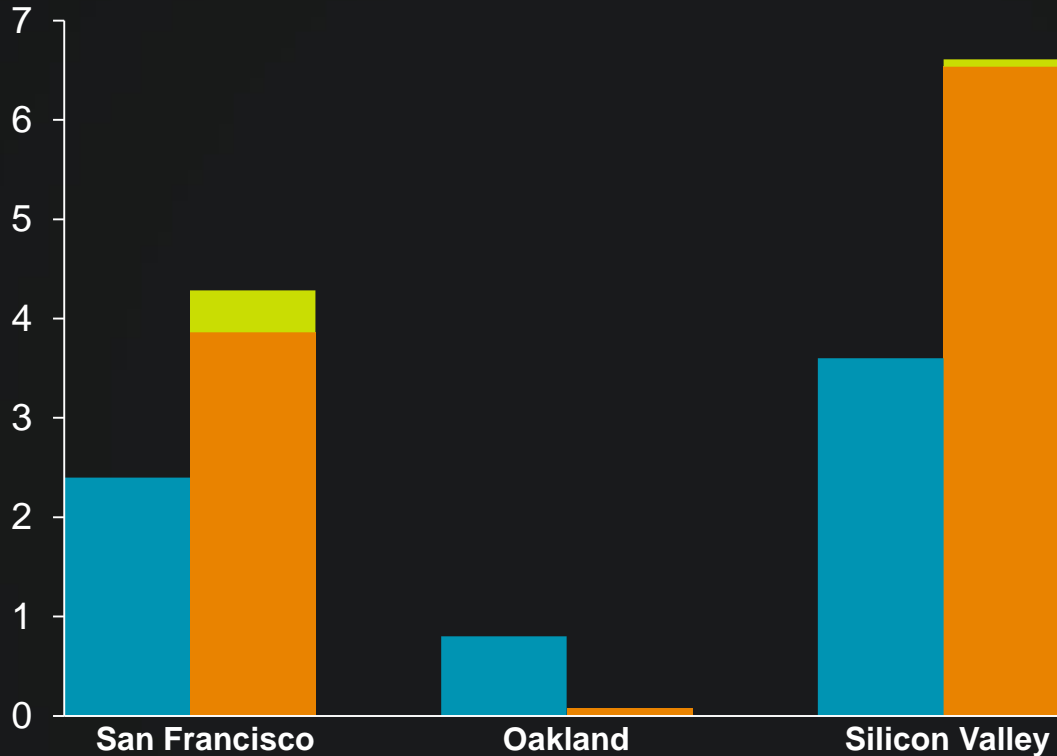


Source: NGKF Research; May 2016

THE BAY AREA OFFICE MARKET

Projected Demand and Deliveries | Major Jurisdictions
2 Years Ending March 2018

MILLIONS OF SQUARE FEET



Demand

Net Absorption:
3.4 MSF/Year = 6.8 MSF

Deliveries

Planned and may deliver by 3/18:
0.5 MSF

Under construction:
10.5 MSF

Total = 11.0 MSF

March 2016
vacancy rate:

4.5%

7.1%

7.4%

Projected at
March 2018:

6.0%

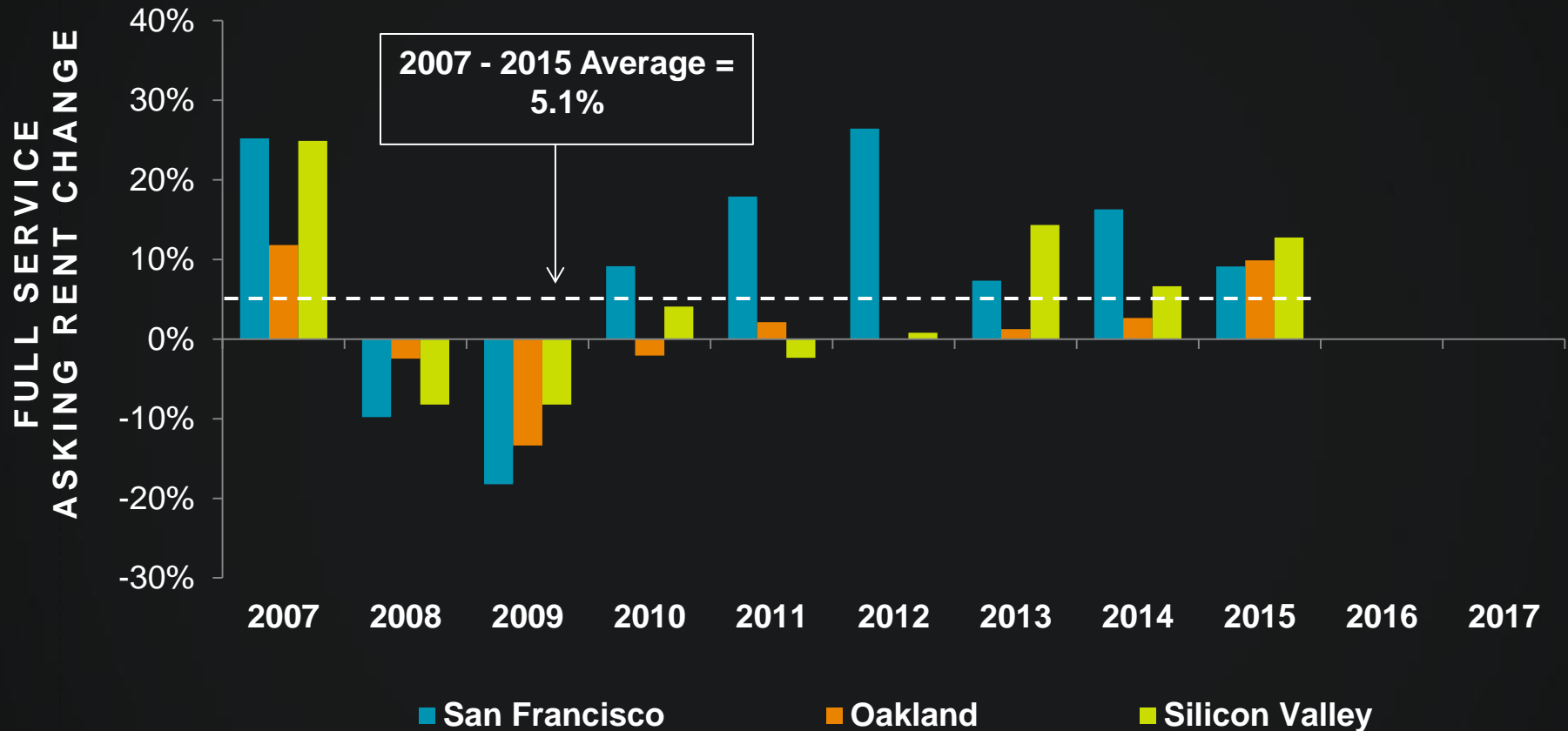
6.3%

10.0%

Note: Vacancy rates reflect physically vacant space
Source: CoStar, NGKF Research; May 2016

THE BAY AREA OFFICE MARKET

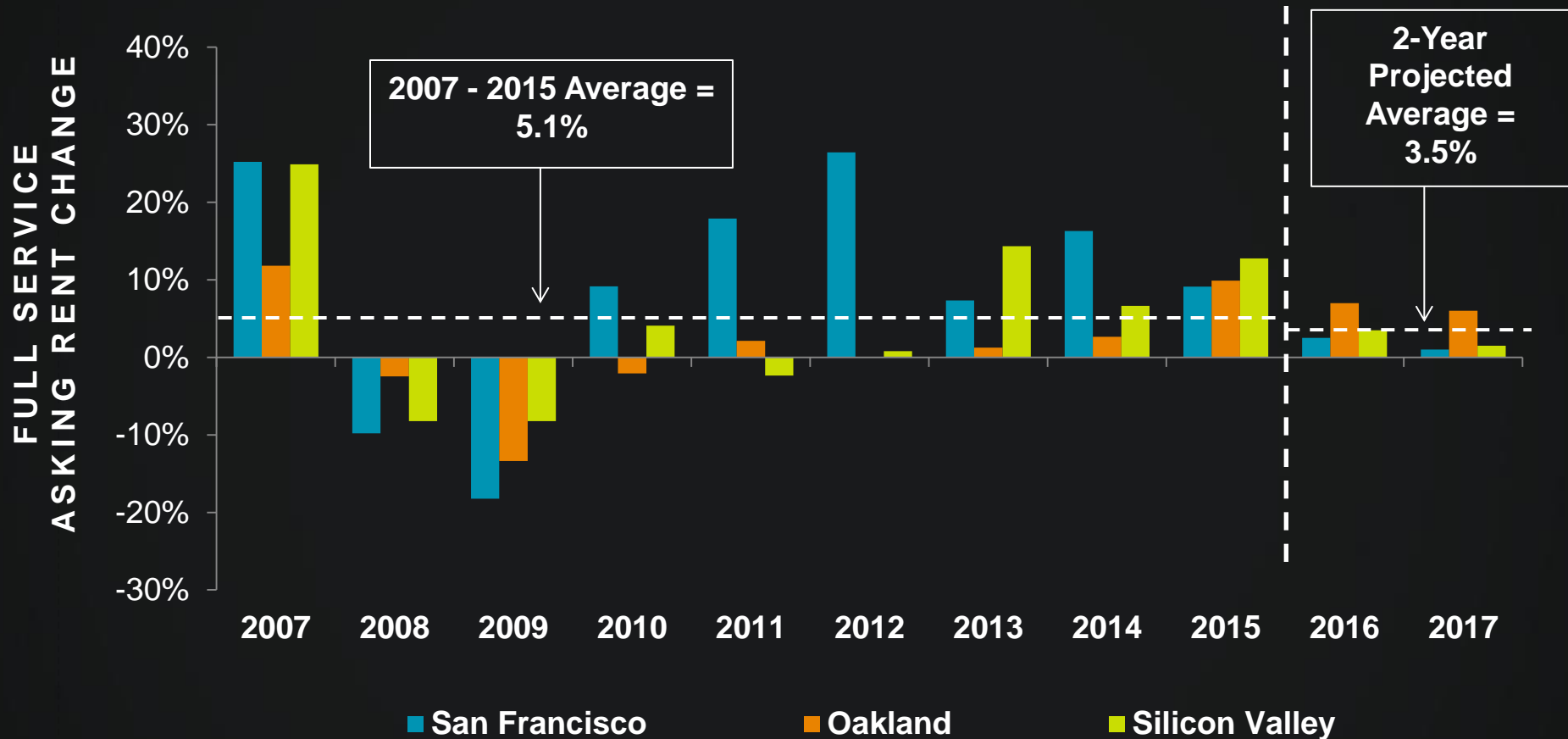
Historical Asking Rent Change | Major Jurisdictions



Source: NGKF Research; May 2016

THE BAY AREA OFFICE MARKET

Projected Asking Rent Change | Major Jurisdictions



Source: NGKF Research; May 2016

THE BAY AREA OFFICE MARKET

What is Driving Demand? What is Curtailing Demand?

Demand Drivers

1. Office-using jobs being created
2. Pushback against densification gaining momentum
3. Highly-skilled workforce will continue to attract employers

Demand Reducers

1. Densification, telecommuting, and open floor plans changing tenant needs and attitudes
2. Flexibility of office-sharing environments creating options
3. Cost of space prohibitive for some start-ups
4. Sublease space increasing

Source: NGKF Research; May 2016

THE BAY AREA OFFICE MARKET

What's Next? | Opportunities in the Bay Area Office Market

- Develop with tenant flexibility in mind to compete effectively in the sharing economy
- Enhance performance with select amenities and upgrades
- Market to tenants looking to move or consolidate
- Refinance with long-term fixed-rate debt

Source: NGKF Research; May 2016

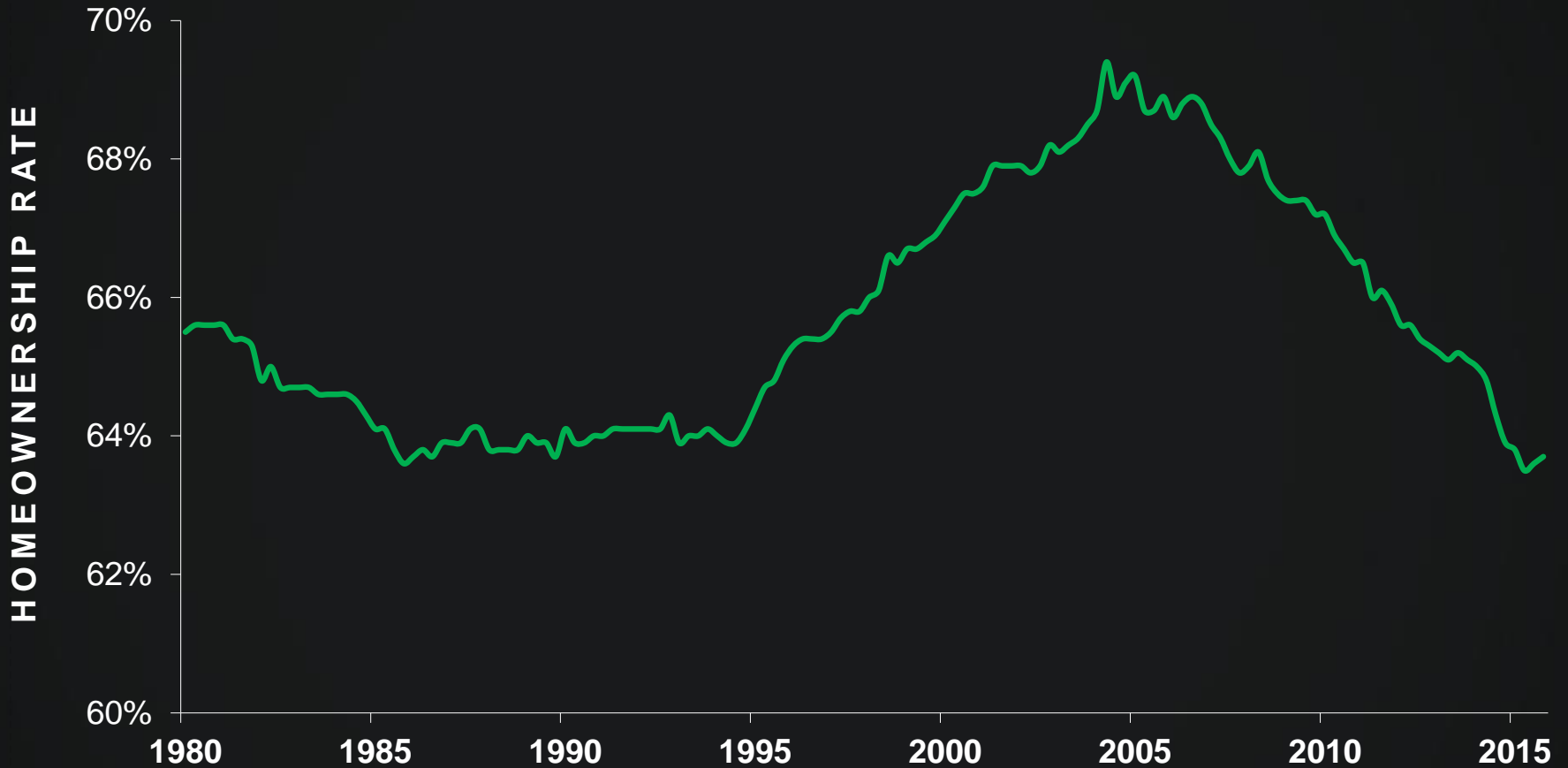
THE BAY AREA APARTMENT MARKET



BENCH  **MARKS**

THE BAY AREA APARTMENT MARKET

Homeownership Rate | United States

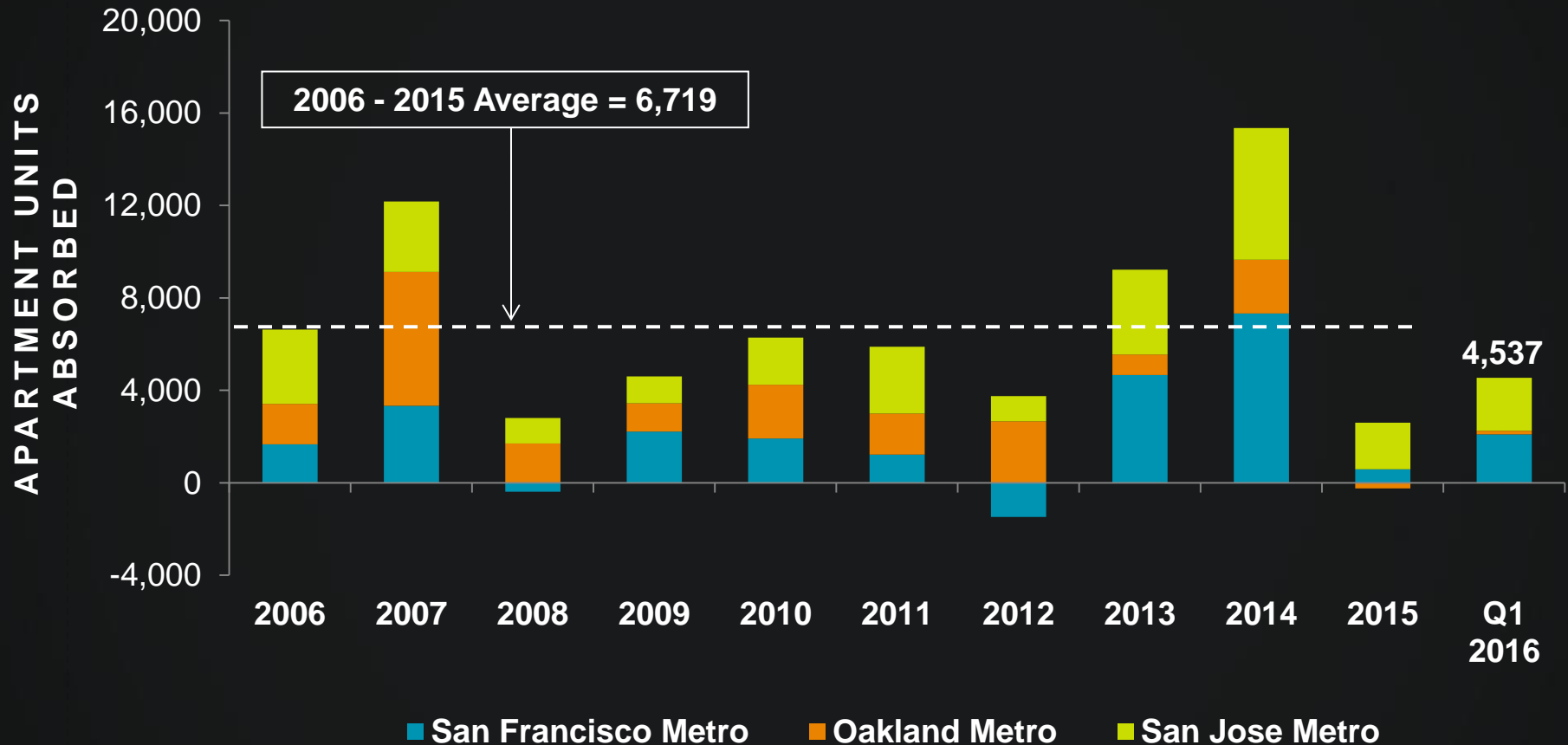


Note: Seasonally adjusted

Source: U.S. Census Bureau, NGKF Research; May 2016

THE BAY AREA APARTMENT MARKET

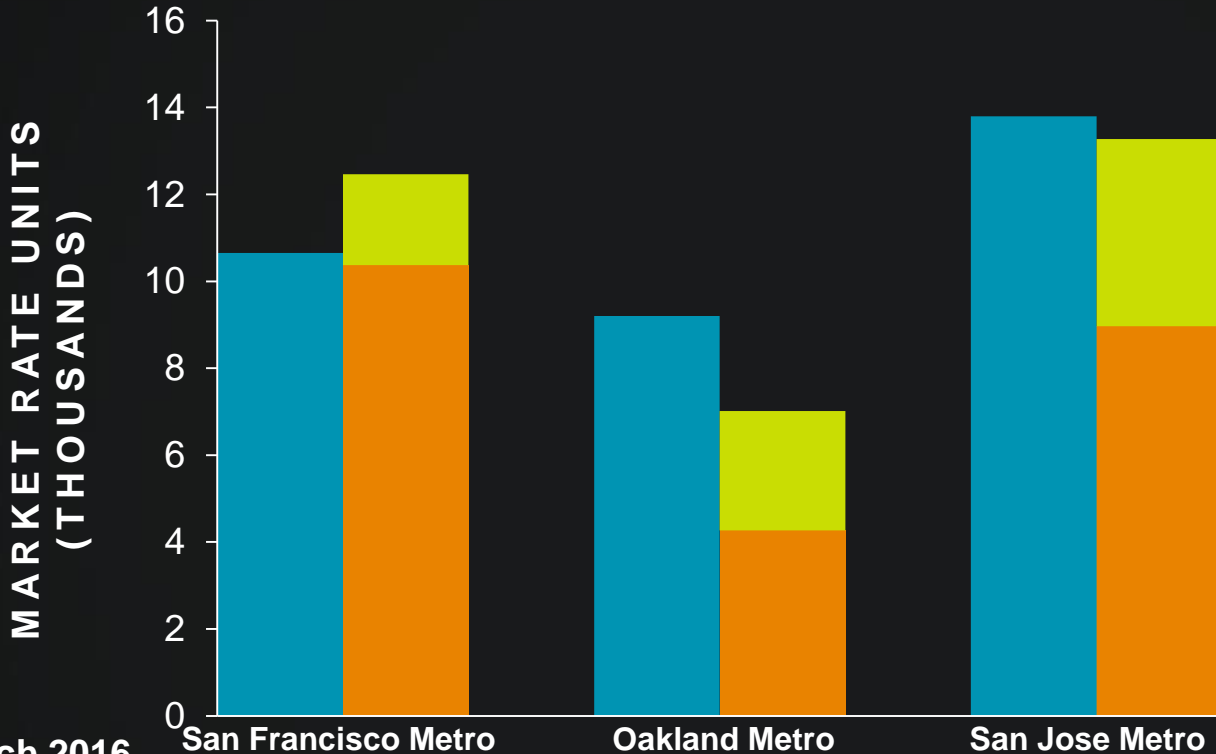
Net Absorption



Source: Axiometrics, NGKF Research; May 2016

THE BAY AREA APARTMENT MARKET

Projected Demand and Deliveries | 3 Years Ending December 2018



March 2016
vacancy rate:

4.1%

4.0%

4.5%

Projected at
December 2018:

4.5%

3.1%

4.3%

Demand

Net Absorption:
11,219/Year = 33,657 units

Deliveries

**Planned and may
deliver by 12/18:**
9,142 units

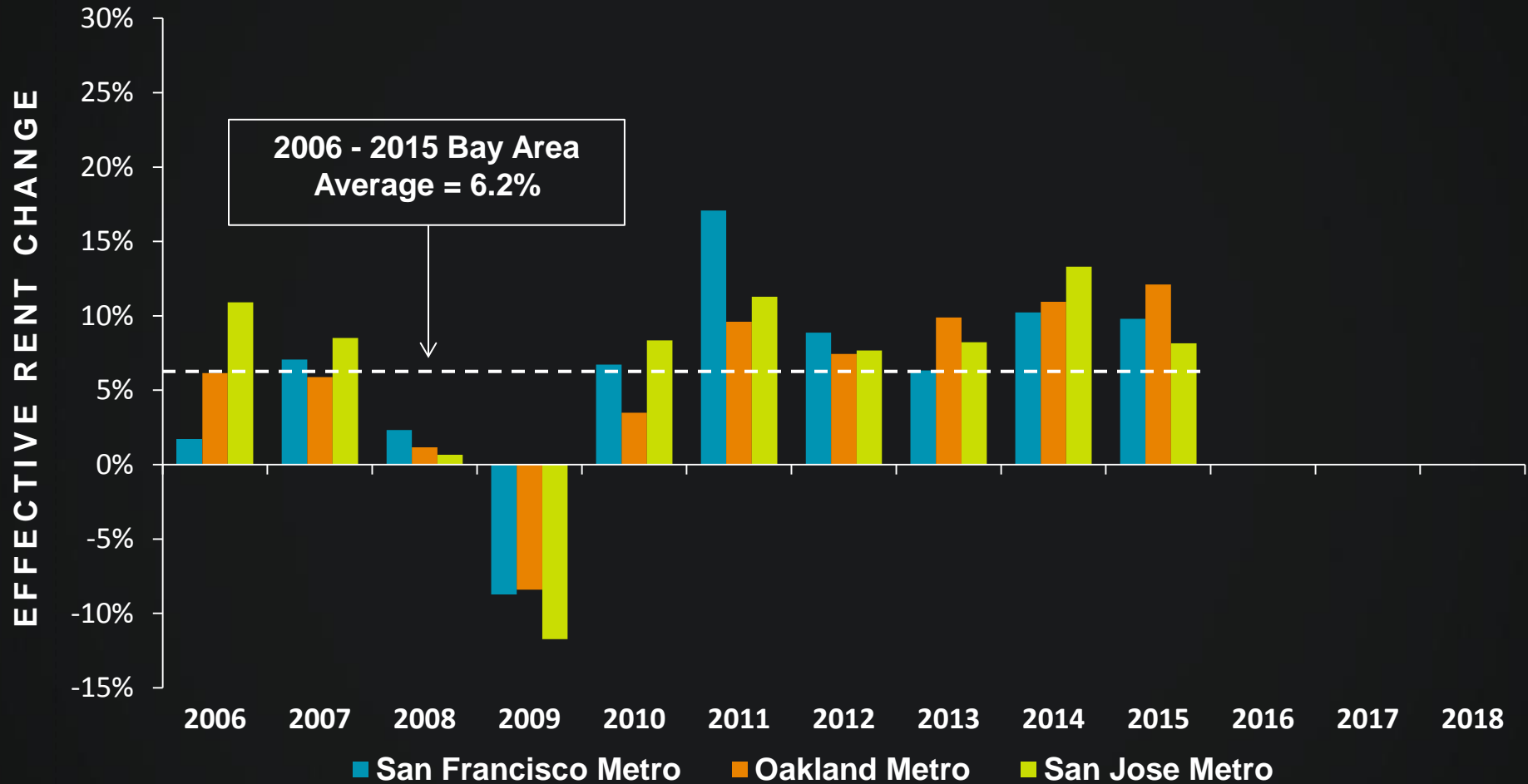
Under construction:
23,607 units

Total = 32,749 units

Source: Axiometrics, NGKF Research; May 2016

THE BAY AREA APARTMENT MARKET

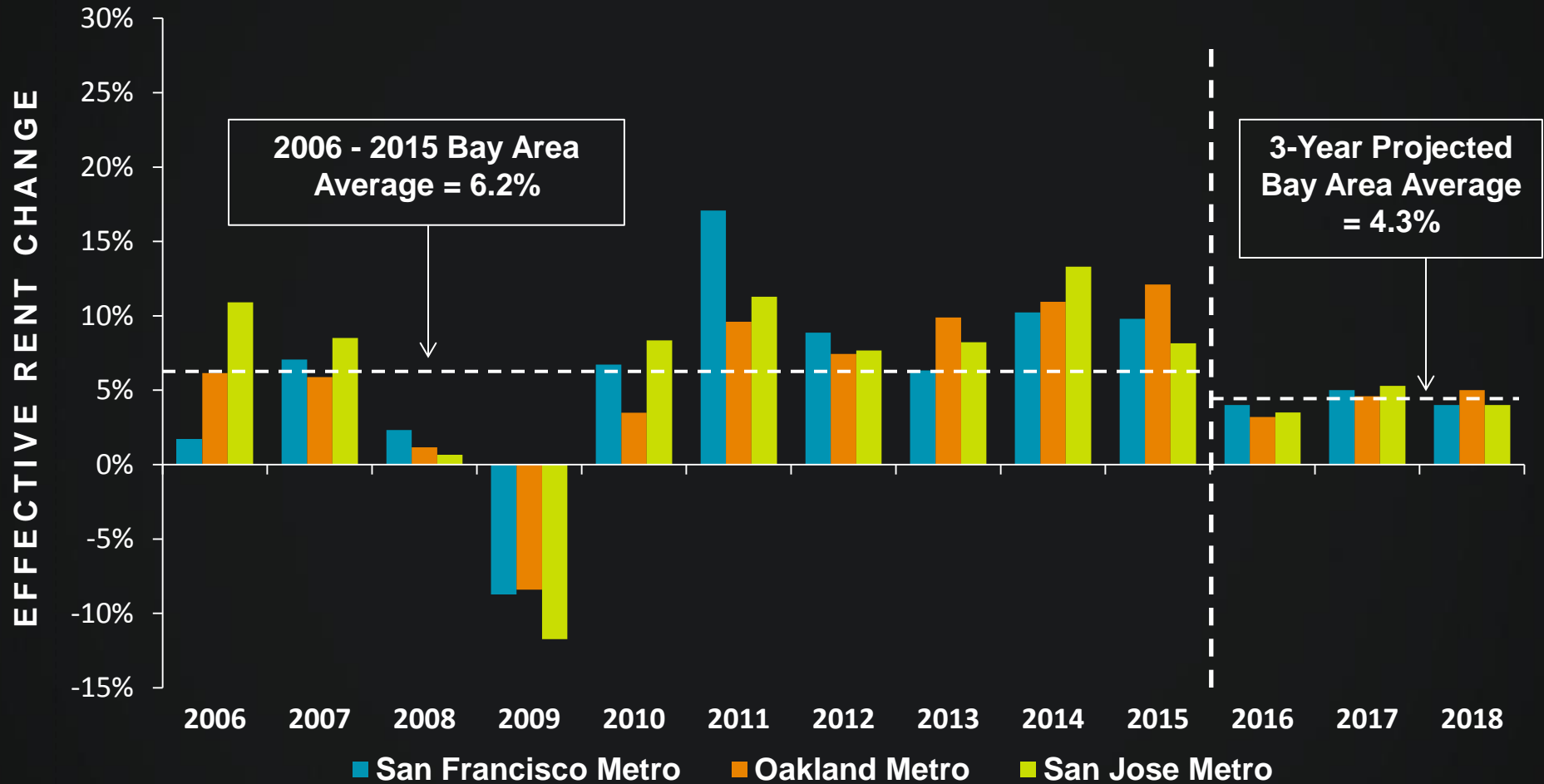
Historical Effective Rent Change



Source: Axiometrics, NGKF Research; May 2016

THE BAY AREA APARTMENT MARKET

Projected Effective Rent Change



Source: Axiometrics, NGKF Research; May 2016

THE BAY AREA APARTMENT MARKET

What's Next? | Opportunities in the Bay Area Apartment Market

- Focus development around transit nodes
- Cater to work-at-home tenants
- Renovate well-located Class B assets to target price-sensitive market – but only where projects will pencil

Source: NGKF Research; May 2016

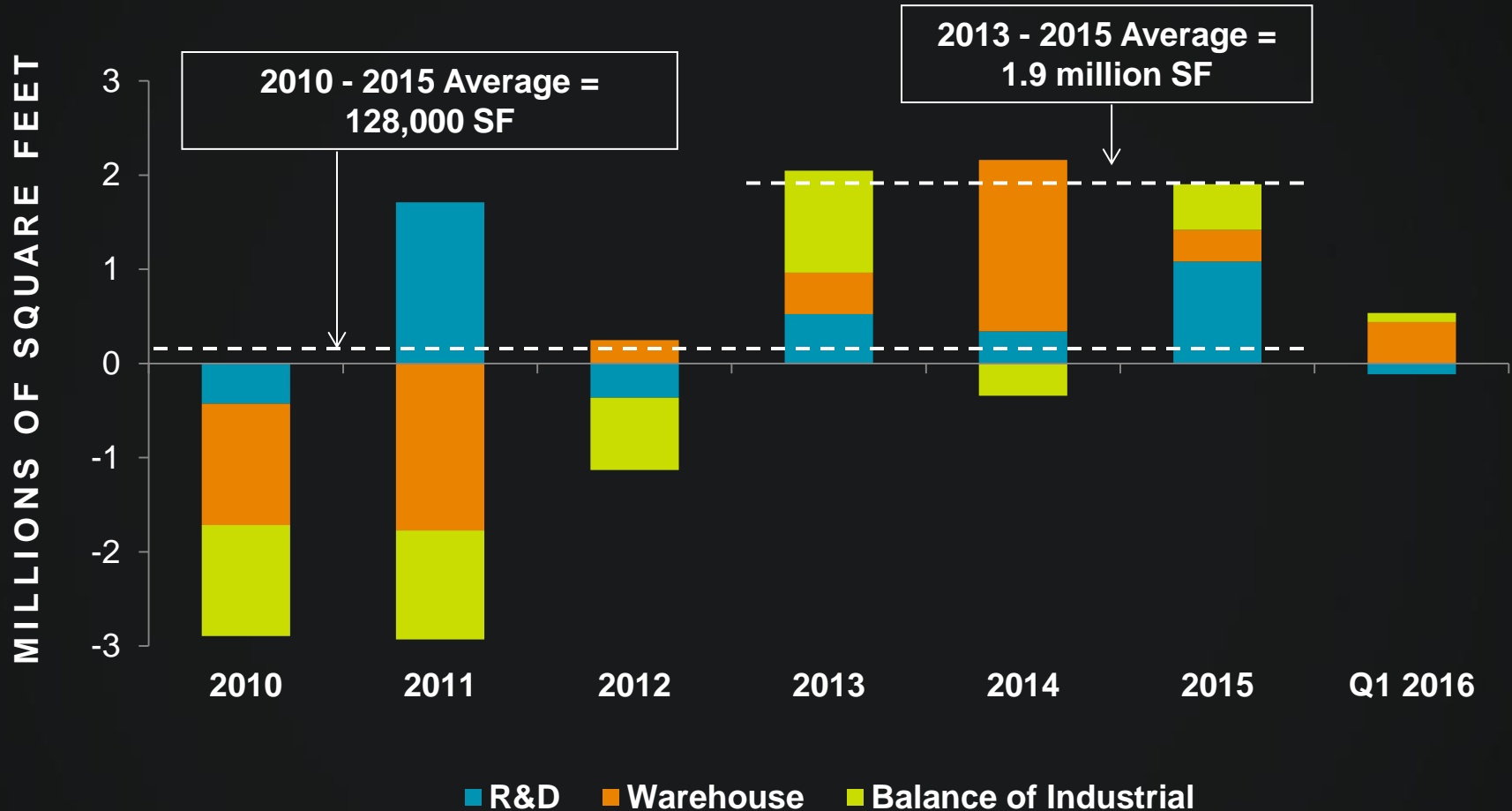
THE BAY AREA INDUSTRIAL MARKET



BENCH  **MARKS**

THE BAY AREA INDUSTRIAL MARKET

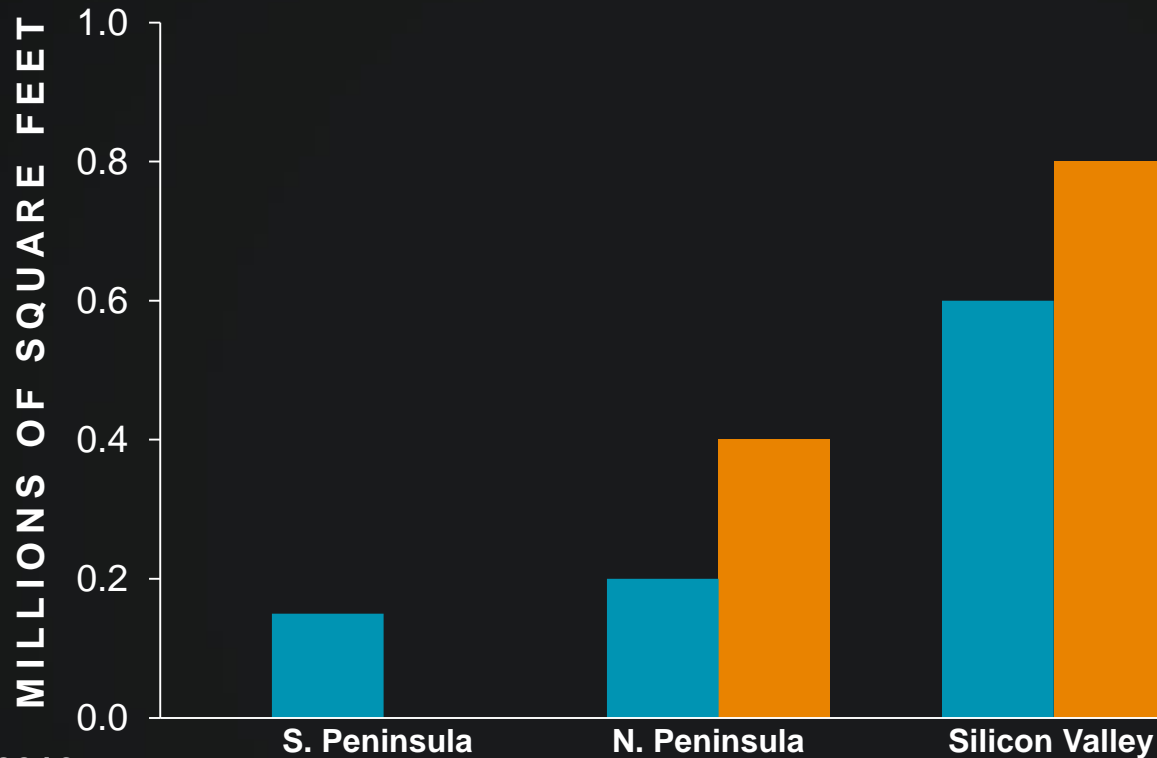
Net Absorption – All Industrial Space



Note: Industrial absorption data includes North Peninsula, South Peninsula, Oakland, Hayward, and Silicon Valley
Source: NGKF Research; May 2016

THE BAY AREA INDUSTRIAL MARKET

Projected Demand and Deliveries for R&D Space | Major Jurisdictions
1 Year Ending March 2017



Demand

**Net Absorption:
1.0 MSF**

Deliveries

**Planned and may deliver by 3/17:
0.0 MSF**

**Under construction:
1.2 MSF**

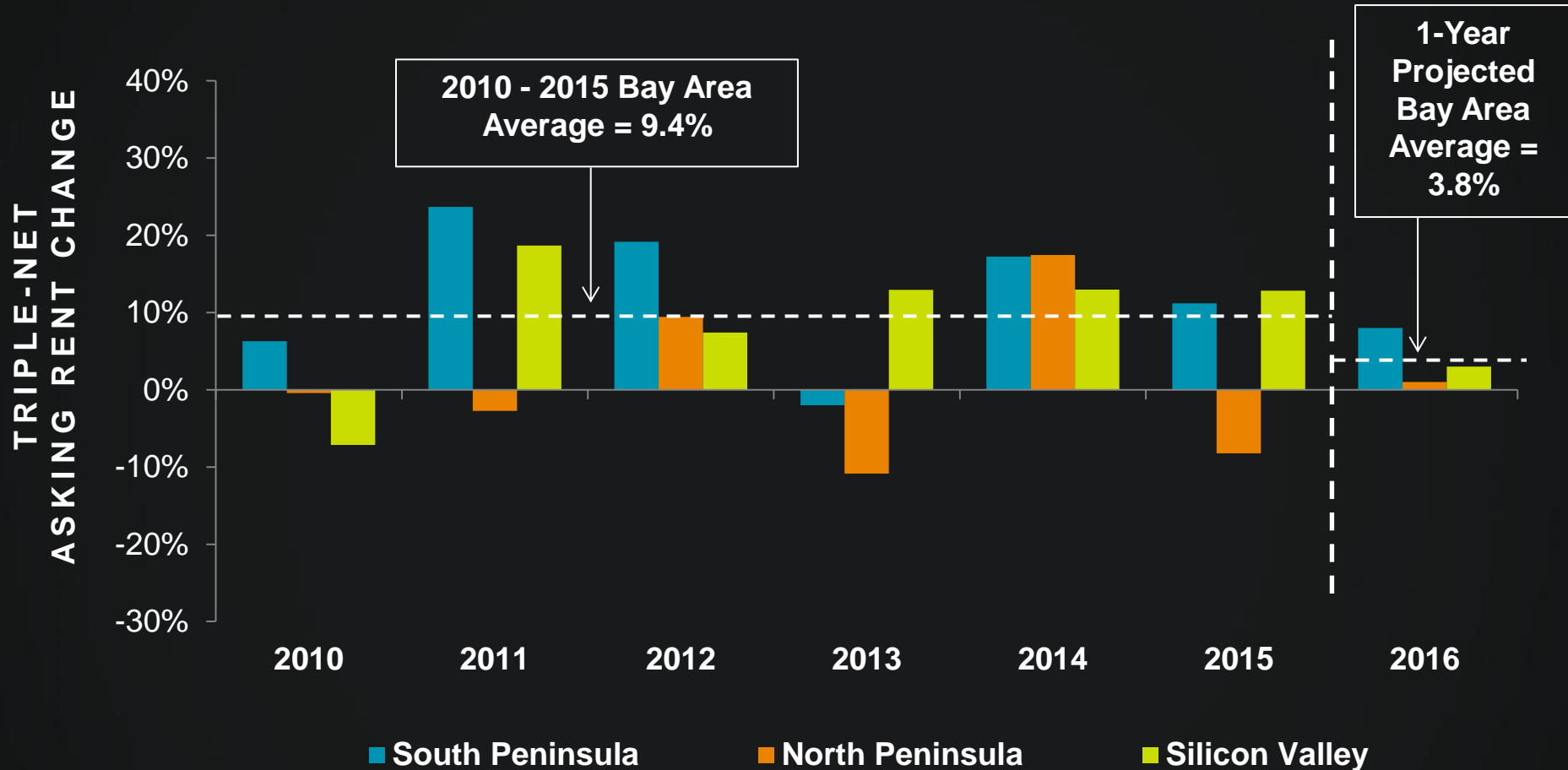
Total = 1.2 MSF

March 2016			
vacancy rate:	2.1%	0.2%	9.9%
Projected at			
March 2017:	0.7%	6.4%	10.1%

Source: CoStar, NGKF Research; May 2016

THE BAY AREA INDUSTRIAL MARKET

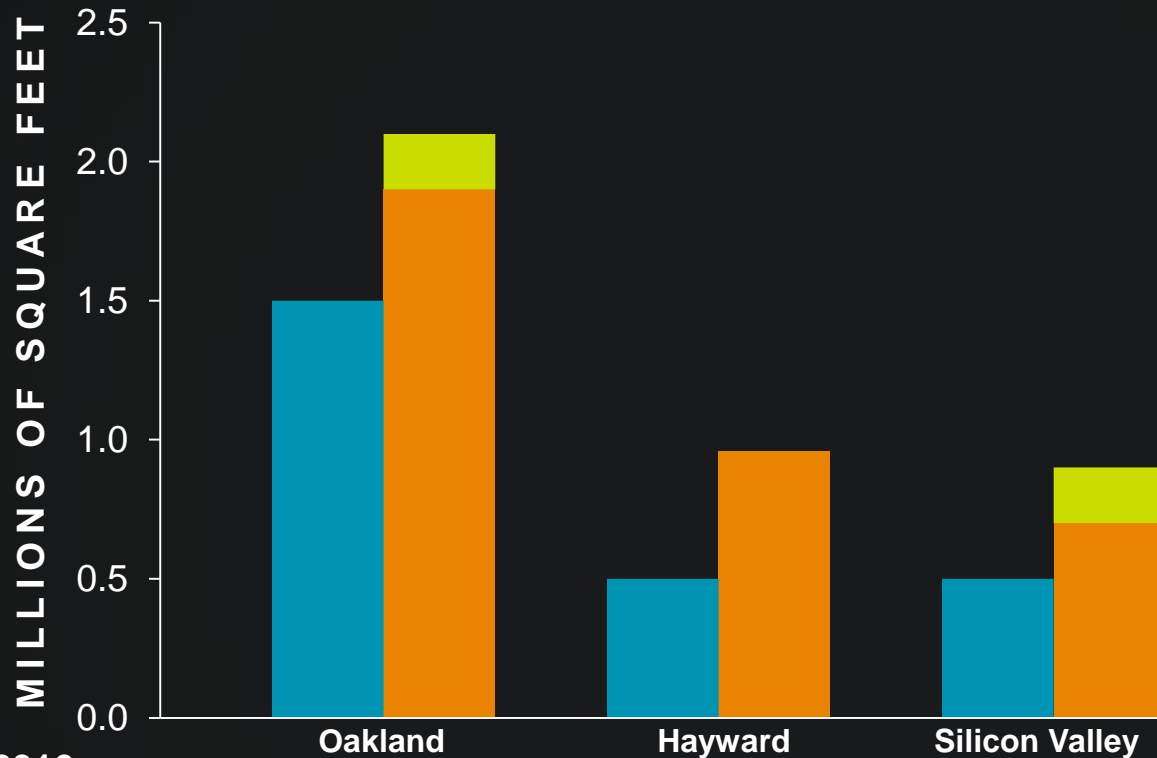
Asking Rent Change for R&D Space | Major Jurisdictions



Source: NGKF Research; May 2016

THE BAY AREA INDUSTRIAL MARKET

Projected Demand and Deliveries for Warehouse Space | Major Jurisdictions 1 Year Ending March 2017



Demand

**Net Absorption:
2.5 MSF**

Deliveries

**Planned and may deliver by 3/17:
0.4 MSF**

**Under construction:
3.6 MSF**

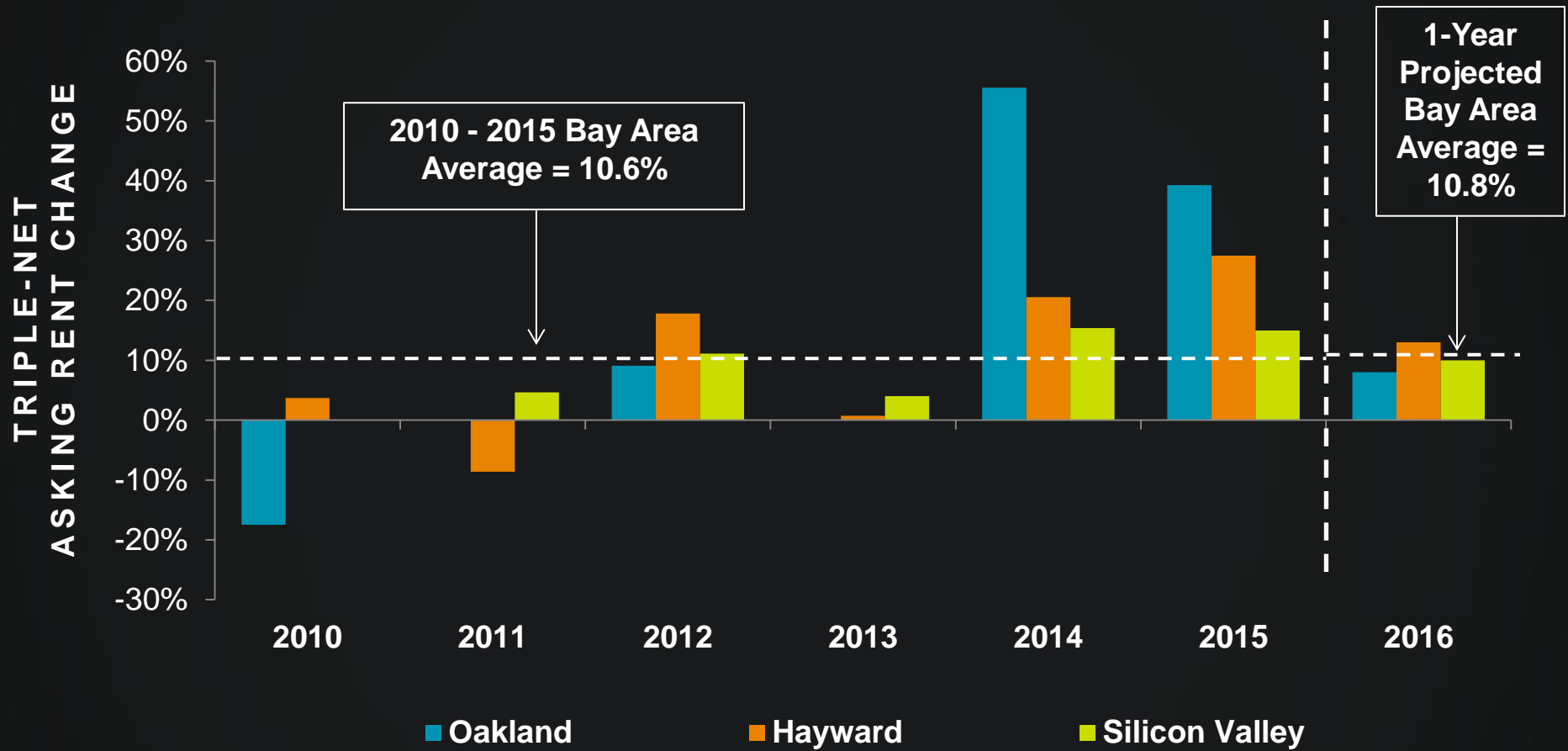
Total = 4.0 MSF

March 2016	Oakland	Hayward	Silicon Valley
vacancy rate:	2.7%	2.0%	2.4%
Projected at			
March 2017:	4.0%	2.6%	3.2%

Source: CoStar, NGKF Research; May 2016

THE BAY AREA INDUSTRIAL MARKET

Asking Rent Change for Warehouse Space | Major Jurisdictions



Source: NGKF Research; May 2016

THE BAY AREA INDUSTRIAL MARKET

What's Next? | Opportunities in the Bay Area Industrial Market

- Build fully operational and functional warehouses with 36' clear height and ideal columns for intense racking
- Focus on proximity to end-user
- Target distribution center development toward the needs of large users (FedEx, Amazon, UPS)
- Consider the possible needs of next-generation manufacturing when designing new projects (robotics, 3-D printing)

Source: NGKF Research; May 2016

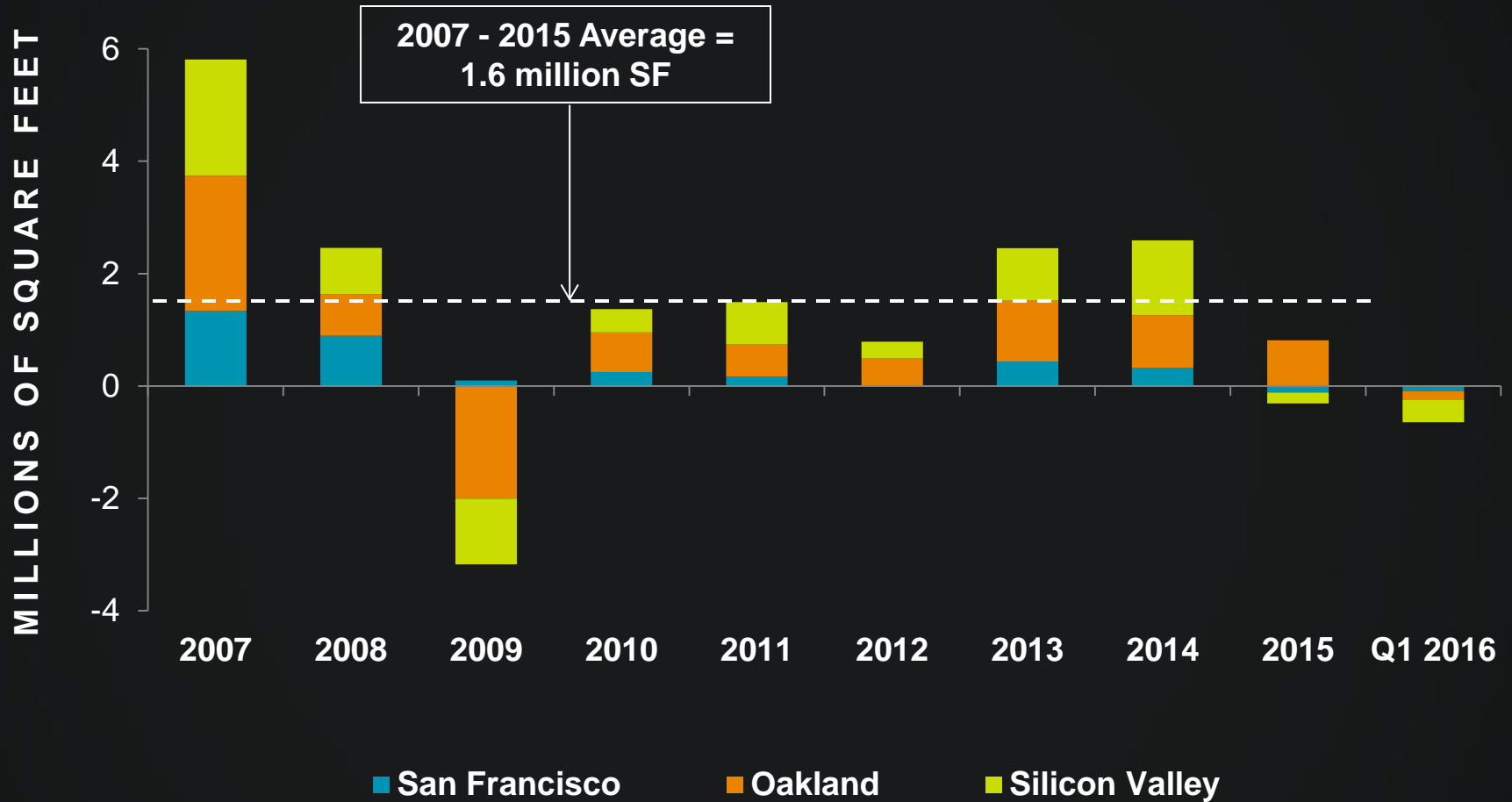
THE BAY AREA RETAIL MARKET



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THE BAY AREA RETAIL MARKET

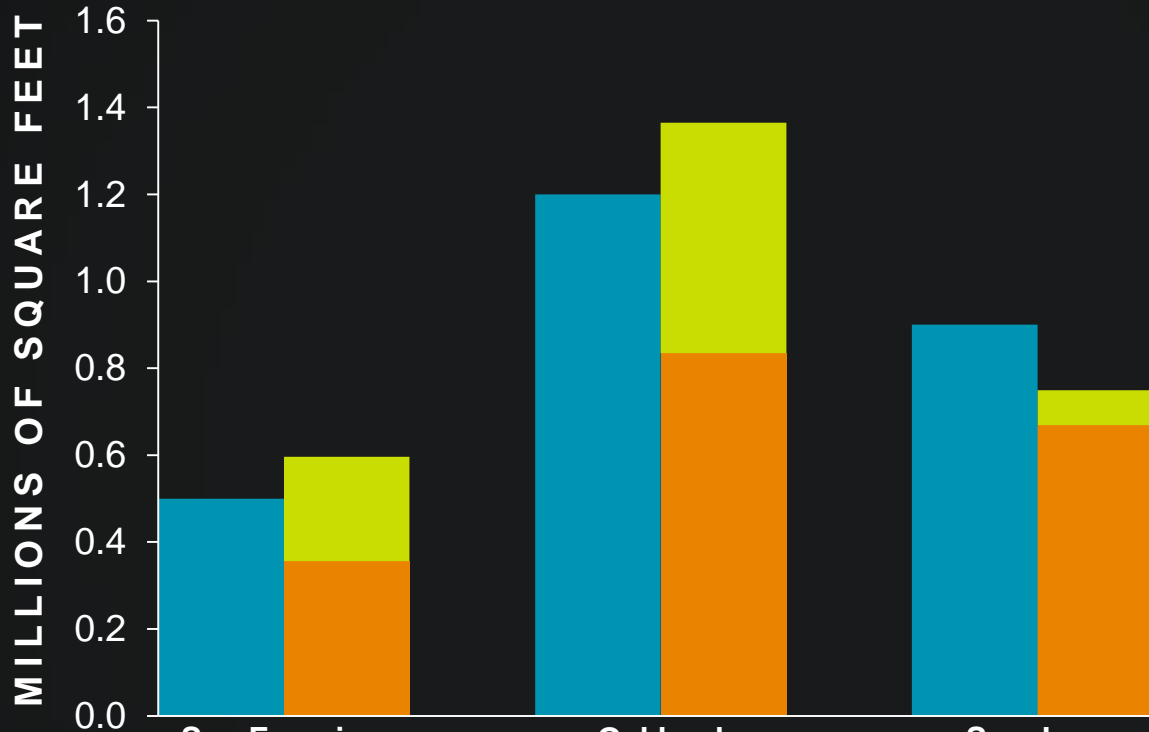
Net Absorption



Source: CoStar, NGKF Research; May 2016

THE BAY AREA RETAIL MARKET

Projected Demand and Deliveries | Major Jurisdictions
2 Years Ending March 2018



March 2016
vacancy rate:

San Francisco
2.2%

Oakland
3.6%

San Jose
4.7%

Projected at
March 2018:

2.3%

3.7%

4.5%

Demand

Net Absorption:
1.3 MSF/Year = 2.6 MSF

Deliveries

**Planned and may
deliver by 3/18:**
850,000 SF

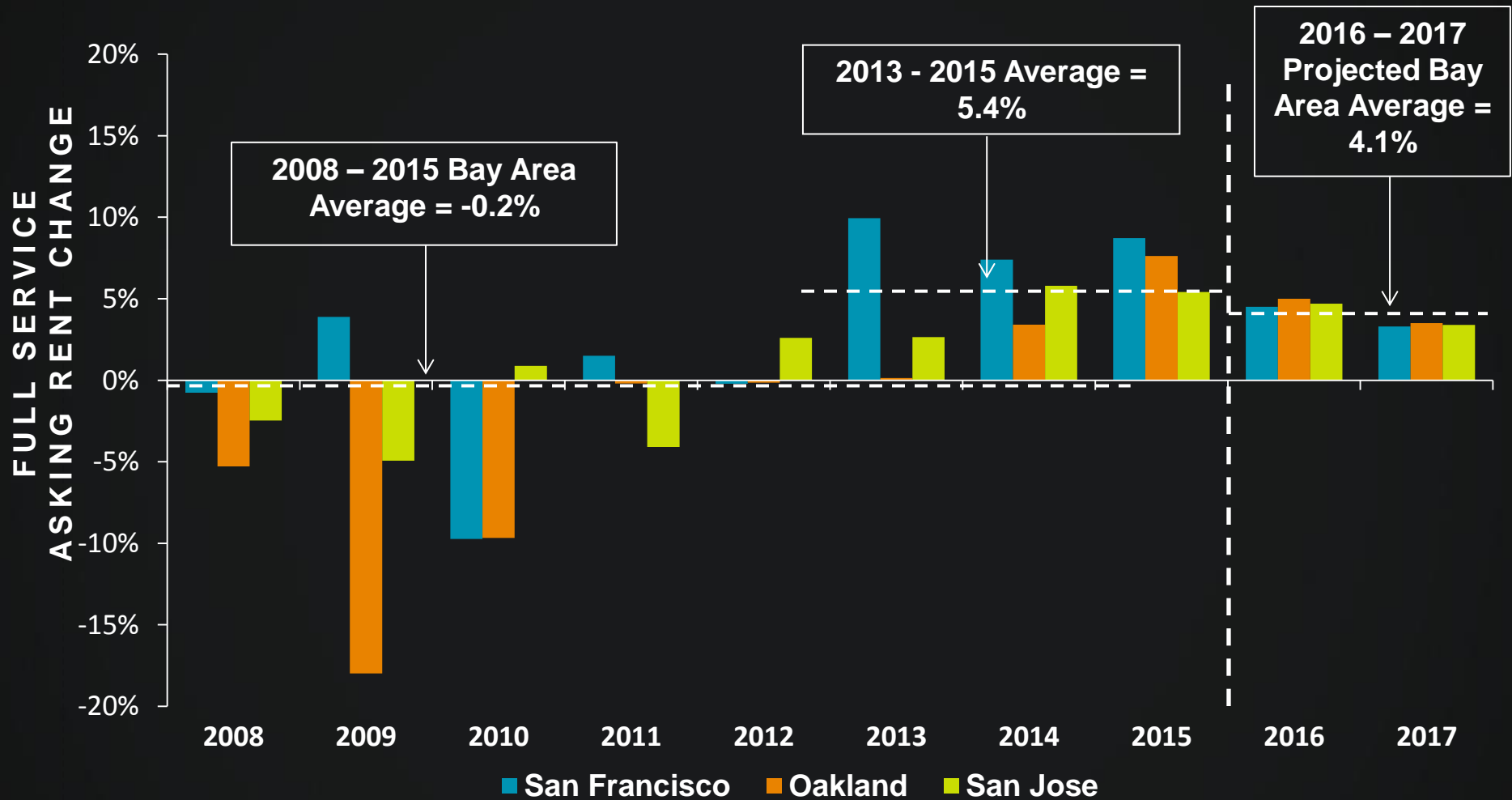
Under construction:
1.9 MSF

Total = 2.7 MSF

Source: CoStar, NGKF Research; May 2016

THE BAY AREA RETAIL MARKET

Asking Rent Change | Major Jurisdictions



Source: CoStar, NGKF Research; May 2016

THE BAY AREA RETAIL MARKET

What's Next? | Opportunities in the Bay Area Retail Market

- Develop grocery-anchored centers and others that are most likely to perform well as the cycle winds down
- Focus on place-making via mixed-use developments – housing shortage is leading to greater popularity of mixed-use, especially at transit-oriented locations
- Target retailers who have successfully integrated their online and bricks-and-mortar sales experiences
- Future retail development will be challenging due to lack of anchor expansion and competition for retail sites by residential developers
- Work with department stores as they seek to monetize their real estate

Source: NGKF Research; May 2016

OUTLOOK



OUTLOOK

Implications for the Bay Area's CRE Market | Next 12-24 Months

1. Real estate moves in cycles – deceleration expected
2. We are likely in mature phase of cycle – pricing will flatten
3. Phenomenal assets – especially human capital – position Bay Area well for continued success
4. Bay Area's status as "Center of Innovation" has created tremendous growth, but we can do even better
 - More regional cooperation
 - Transportation improvements
 - Additional affordable and workforce housing stock

Source: NGKF Research; May 2016



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ARA

A Newmark Company

MAY 10, 2016