



THOUGHT LEADERSHIP SERIES

RENAISSANCE OF THE WAREHOUSE/ DISTRIBUTION MARKET

RETAILING'S TRANSFORMATIONAL IMPACT



August 2017

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RENAISSANCE OF THE WAREHOUSE/DISTRIBUTION MARKET:

Retailing's Transformational Impact

Long an unassuming asset class of the commercial real estate industry, over the past 15 years the warehouse/distribution market has moved front and center as the top performing sector of the real estate industry due to changes in retailing. The industrial sector now leads all five major asset classes in terms of investment yield, net absorption, and prospects for future performance. These real estate changes are a manifestation of lifestyle changes that have resulted in 374,000 jobs lost in department stores while 767,000 jobs have been created in transportation and warehousing over the past 15 years. Yet, brick-and-mortar retailing is far from dead. Just look at how Amazon is opening physical bookstores and acquiring grocery stores. Further, Walmart's online sales grew 63% in the past 12 months in large part due to incentives offered for pickup at its stores. Meanwhile, the average store size is shrinking, requiring more warehouse space and putting pressure on delivery systems. All these trends are a boon to the warehouse/distribution market, especially in key distribution hubs across the nation – and likely will remain so for years to come.

KEY FINDINGS

- ♦ Over the past five years, total returns to industrial property investment were 12.8% per annum – higher than any other commercial real estate asset class. Next highest: retail at 12.1% and apartments at 9.9%. Some of this superior total return is due to appreciation, driven by a decline in average cap rates of 70 basis points in the past five years. But most of this total return came from improving property performance, propelled by rising rents and occupancies.
- ♦ As e-commerce firms flirt with having a brick-and-mortar presence and physical stores sell more online, they both have increasing needs for warehouse/distribution space. For example, Amazon's thrust into the world of brick-and-mortar, including its recent acquisition of Whole Foods, is as much a need to distribute and deliver as it is an attempt to market. Doing so requires more distribution and warehousing logistics. Further, Walmart's rapid increase in online sales – a 63% increase in the 12 months ending January 2017, the most recent period for which data is available – has forced the big box giant to increase its warehouse/distribution presence, even as a large share of purchases are picked up at its 4,672 stores. This blending of online and brick-and-mortar will continue to benefit the warehouse/distribution market for years to come.
- ♦ The key to e-commerce is the “last mile” of delivery – the movement of goods from a warehouse to a customer's home. The demand for next-day, same-day, and two-hour delivery amplifies the importance of this segment of the shipping process. This change has benefited nearly every industrial marketplace in the U.S., from primary through tertiary markets. While smaller markets are benefiting from the warehousing boom, the real play for developers and investors

seems to be in the largest distribution hubs – in particular, in the big-box distribution segment (buildings 500,000 SF or larger), with high occupancies and absorption.

- ♦ The biggest warehouse winners are the six largest distribution markets in the U.S.: Southern California, Dallas/Ft. Worth, Atlanta, Chicago, Central Pennsylvania, and Northern New Jersey. Taken together they are within a one-day drive of 80% of the U.S. population. Big box space in these six markets totals 1.2 billion SF; these markets also have 69 million SF of big-box space under construction as of spring 2017. Walmart has one-third of its warehouse inventory in these six markets while Amazon has half of its.
- ♦ We anticipate at least several more years of robust market conditions for the big-box warehouse/distribution segment as retailing continues to have a transformative impact on the industrial market.

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INDUSTRIAL MARKET'S ABSORPTION AND INVESTMENT RETURNS ARE SUPERIOR

Industrial space has outstripped office and retail in terms of absorption and investment returns over the past five years.

In the past 18 months, for example, one and one-half times more industrial space was absorbed than office and retail space combined. This is a testament to the transformative effect of changes in retailing which drive unprecedented demand for warehouse/distribution space.

Over the past five years total returns, as measured by the NCREIF Property Index, have been the highest for industrial properties. Some of this superior total return is due to appreciation, driven by a decline in average cap rates of 70 basis points in the past five years. But most of this total return came from improving property performance, propelled by rising rents and occupancies

U.S. NET ABSORPTION OF SPACE SQUARE FEET IN MILLIONS

	Industrial	Office	Retail
2016	266	73	110
First half 2017	99	24	30
Total for 18 months	365	97	140

Source: CoStar; NKF Research, August 2017

REALIZED TOTAL RETURNS

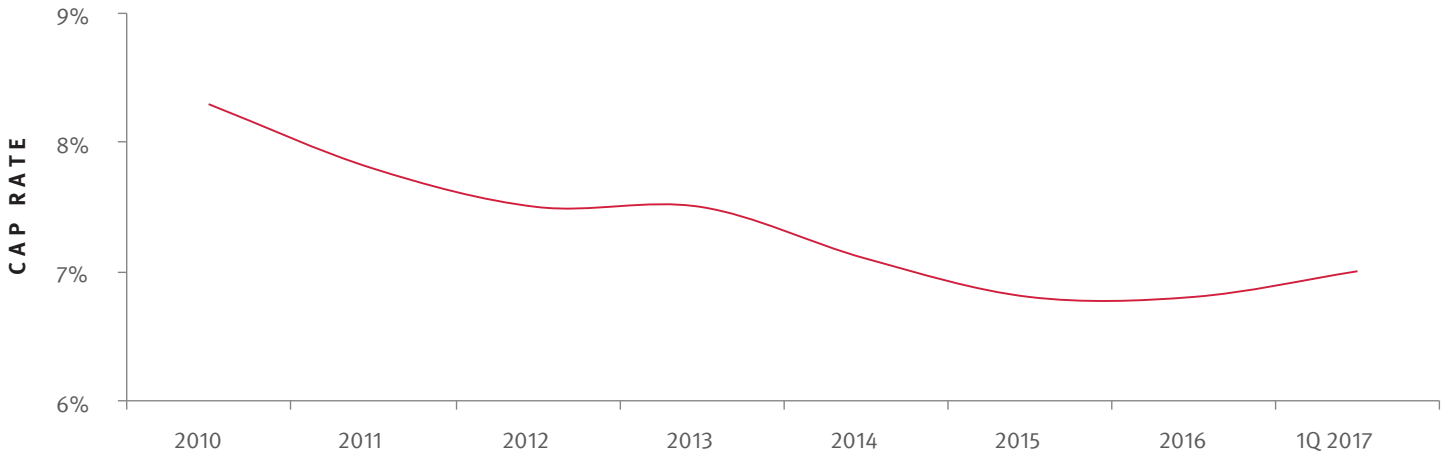
INDUSTRIAL MARKET LEADS ALL MAJOR U.S. PROPERTY TYPES.
FIVE-YEAR AVERAGE ANNUAL TOTAL RETURNS

Property Type	
Industrial	12.8%
Retail	12.1%
Apartment	9.9%
Office	9.7%
Hotel	8.6%

Source: NCREIF as cited by Situs RERC, NKF Research; August 2017

AVERAGE CAP RATE FOR SALES OF U.S. INDUSTRIAL PRODUCT

2010 THROUGH 1Q 2017



Source: Real Capital Analytics; NKF Research; August 2017



Big E-Commerce v. Big Box Retailing

The largest e-commerce retailer in the U.S. is Amazon, established in 1994, with 2016 U.S. sales of \$90 billion. This represents 23% of all U. S. e-commerce sales but only 2% of all U.S. retail sales. The largest brick and mortar retailer is Walmart, founded in 1962, currently with 4,672 U.S. stores which generated 2016 U.S. sales of \$298 billion. This dwarfs Amazon’s market share at 6.1% of U.S. retail sales. Also, Walmart’s e-commerce sales, at approximately 5% of its total receipts, increased 63% last year. Amazon is making moves to bolster its brick-and-mortar presence, with the recent opening of bookstores and its purchase of Whole Foods, while Walmart is moving into e-commerce with its recent purchase of Jet.com and by offering financial incentives to e-commerce shoppers to pick up purchases in stores. More telling than these moves into each other’s format is the impact on warehouse space occasioned by these strategies – both approaches require additional industrial/distribution space to accommodate planned growth. This change is emblematic of the industry in general.

Both brick-and-mortar retailers, like Walmart, and online sellers, like Amazon, use industrial space – and more of it today than in the past. Amazon uses 97 million SF of industrial space which accommodated \$90 billion in 2016 sales. Walmart, with \$298 billion in U. S. sales in 2016, uses 62 million SF of warehouse space (in addition to its 699 million SF of store space). And, like other e-commerce and big-box retailers, Amazon and Walmart are adding millions of square feet of industrial space to their operations each year.

COMPARING THE RETAIL GIANTS
WALMART V. AMAZON

Corporate Profile	Walmart	Amazon
Total Employees	1,500,000 ¹	341,400 ¹
Total Sales (2016)	\$298,378,000,000 ¹	\$90,349,000,000 ¹
Sales/Employee	\$198,919	\$264,642
Sales/Total Corporate SF	\$391/SF	\$855/SF

Space Occupied (SF)		
Industrial space	61,627,487 ²	97,158,400 ¹
Retail space	699,000,000 ¹	56,600 ³
Office space	2,584,478 ²	8,454,000 ¹
Total Corporate Space Industrial, Retail, and Office	763,211,965	105,669,000

Data Source: ¹10-K, ²CoStar, ³Online articles and company websites.
Source: NKF Research, August 2017

SIX LARGEST
DISTRIBUTION HUBS

The six largest distribution hubs in the U.S. – Southern California, Dallas/Ft. Worth, Chicago, Atlanta, Central Pennsylvania, and Northern New Jersey – include 6.7 billion SF of industrial space, serving 80% of the nation’s population within a one-day drive. Of this total, 1.2 billion SF is big-box space, defined as 500,000 SF or larger. Recently, the big box space has been dominated by lease transactions by retailers and e-commerce players as well as those who distribute for them. For example, in the 12 months ending April 2017, the largest retail-related distribution space deals done in these six hubs included:

Southern California	Floor and Decor:	1,103,000 SF
	Amazon:	1,008,000 SF
Dallas/Ft. Worth	Lego Systems:	1,440,000 SF
	Amazon:	1,052,000 SF
Chicago	Amazon:	767,000 SF
	Amazon:	747,000 SF
Atlanta	Variety Wholesalers:	1,405,000 SF
	Wayfair:	846,000 SF
Central Pennsylvania	Amazon:	1,106,000 SF
	Ace Hardware:	1,100,000 SF
Northern New Jersey	Wayfair:	1,241,000 SF
	Amazon:	923,000 SF

Outsized space deals are not restricted to these six hubs, even as they dominate big-box distribution of retail goods. The largest big-box distribution space leases so far in 2017 are:

Under Armour:	1,348,000 SF in Baltimore
UPS:	1,004,000 SF in Dallas
Spectrum Brands	927,000 SF in Kansas City

The six major hubs are performing as well as or better than the national industrial market. Taken together they have a 5.3% vacancy rate, comparable to the national rate. With less than 69 million SF of big box distribution space under construction, these hubs should continue to outperform the industrial market as a whole.





SOUTHERN CALIFORNIA

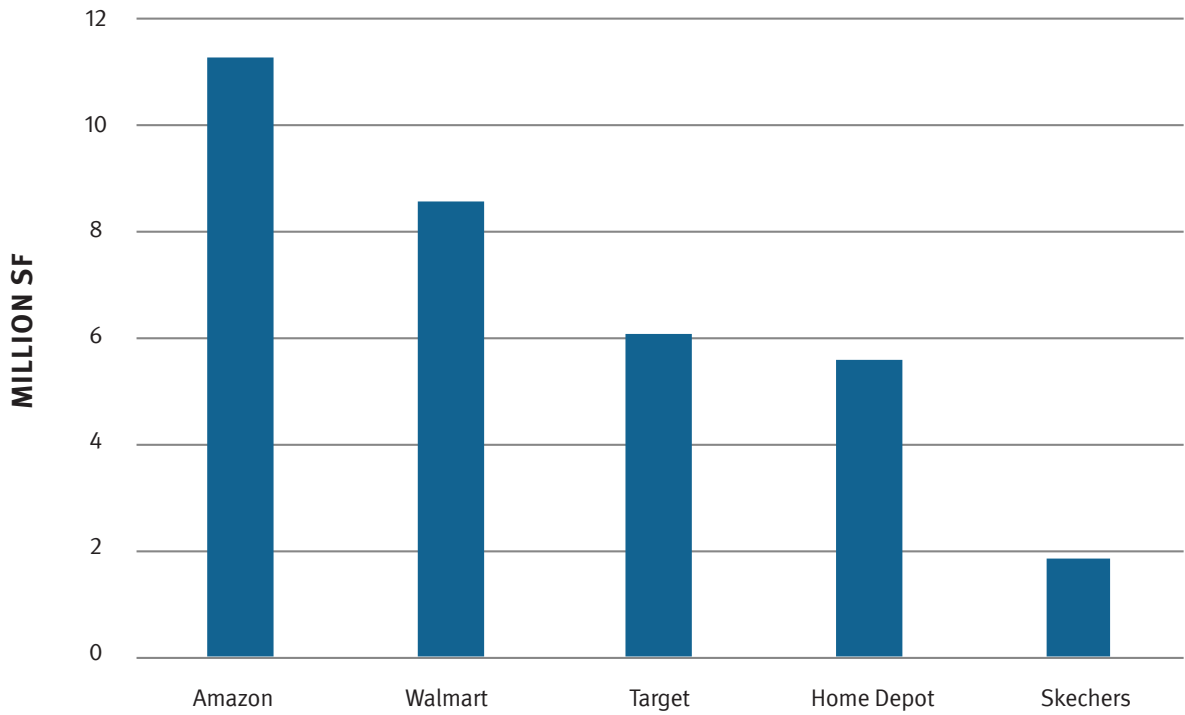
KEY FACTS

- ◆ Southern California is home to 21.9 million residents/consumers, with highest densities along the coast and downtowns.
- ◆ Multi-modal options include water, air, truck and rail. Water: The ports of Los Angeles and Long Beach; Air: LAX and ONT for air freight; Truck: Numerous freeways, FedEx and UPS ground hubs; Rail: two Class 1 freight rail lines (UP and BNSF) and inland ports.
- ◆ 40% of the nation's imports from Asia enter the U.S. through the ports of Los Angeles and Long Beach. Since transport costs are generally 50% of the average distributor's overhead, it is in their best interest to set up operations within reasonable proximity of the nation's busiest port system.
- ◆ Available blue collar labor force, especially in the Inland Empire.

FIRST GENERATION SPACE IS AVAILABLE IN THE INLAND EMPIRE TO ACCOMMODATE LARGE-BOX, MODERN FULFILLMENT CENTER OPERATIONS.



FIVE LARGEST RETAIL/E-COMMERCE OCCUPIERS
SPRING 2017



FIVE LARGEST RETAIL/E-COMMERCE DEALS
12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
Floor & Décor	1,103,003	24101 Iris Avenue	Moreno Valley
Amazon	1,007,705	4950 Goodman Way	Eastvale
Bob's Discount Furniture	806,322	6227 Cajon Blvd	San Bernardino
Amazon	777,620	27517 Pioneer Ave	Redlands
Wolverine Worldwide	720,000	1020 Prosperity Way	Beaumont

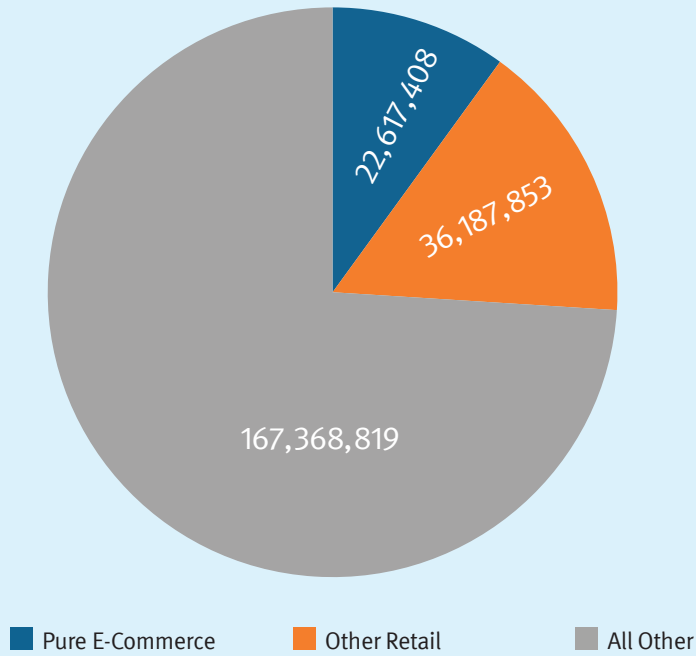
FIVE SMALLER RETAIL/E-COMMERCE DEALS
12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
Amazon	91,541	901 Bay Marina Dr	National City
RCS Logistics	73,948	11099 S La Cienega Blvd	Los Angeles
Sooner Express	60,000	709 Science Dr	Moorpark
West Coast Distribution	45,364	9935 Beverly Blvd	Pico Rivera
Whale Logistics	35,000	12570 Industry St	Garden Grove

SOUTHERN CALIFORNIA

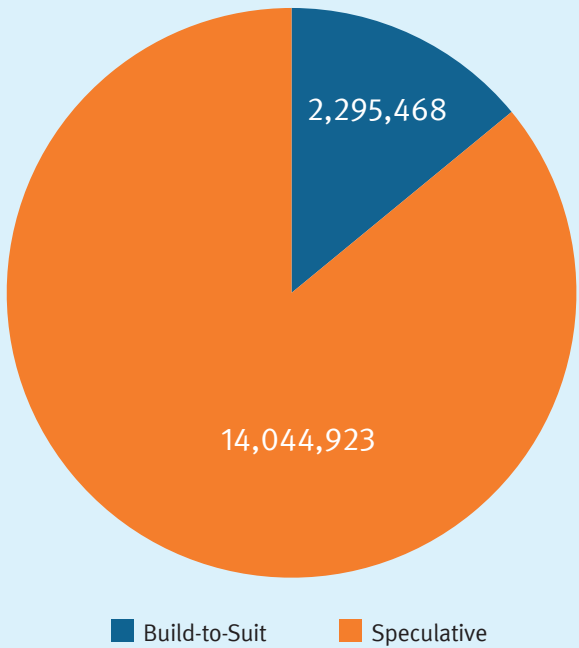
BIG BOX OCCUPIERS

TOTAL = 226,174,080 SF



BIG BOX SQUARE FEET UNDER CONSTRUCTION

TOTAL = 16,340,391 SF

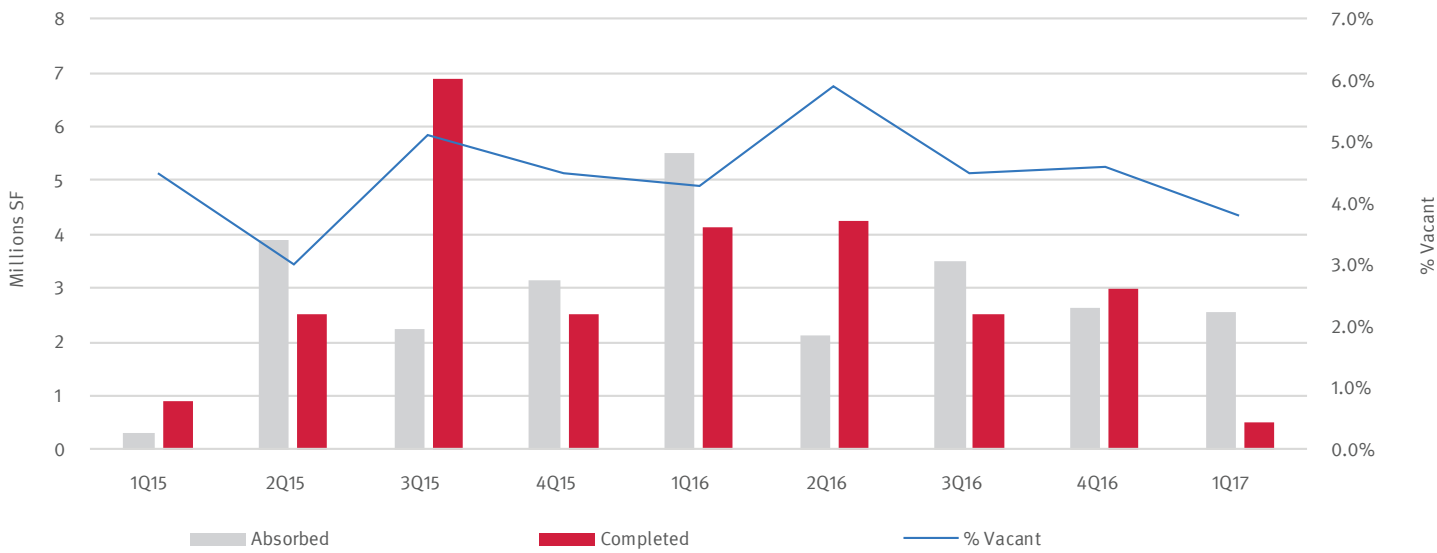


MAJOR INFRASTRUCTURE PROJECTS

- Port of Long Beach has 10-year plan to deploy \$4.5 billion in capital investment; Port of Los Angeles is finishing up 5-year plan to deploy \$1.2 billion. Some existing terminals are being redeveloped/automated, new wharfs are being built, on-dock rail connectivity is being enhanced, the Gerald Desmond Bridge will be replaced.
- The 91 Freeway recently opened additional east and westbound lanes connecting the South Bay and Inland Empire.
- Gradual enhancements to The Alameda Corridor, which connects LA's ports to the national rail system in downtown Los Angeles.
- Long-range plans to enhance the San Diego-Mexico commercial truck border crossing.



SOUTHERN CALIFORNIA
BIG BOX KEY STATISTICS 2015-Q1 TO 2017-Q1





DALLAS/FORT WORTH

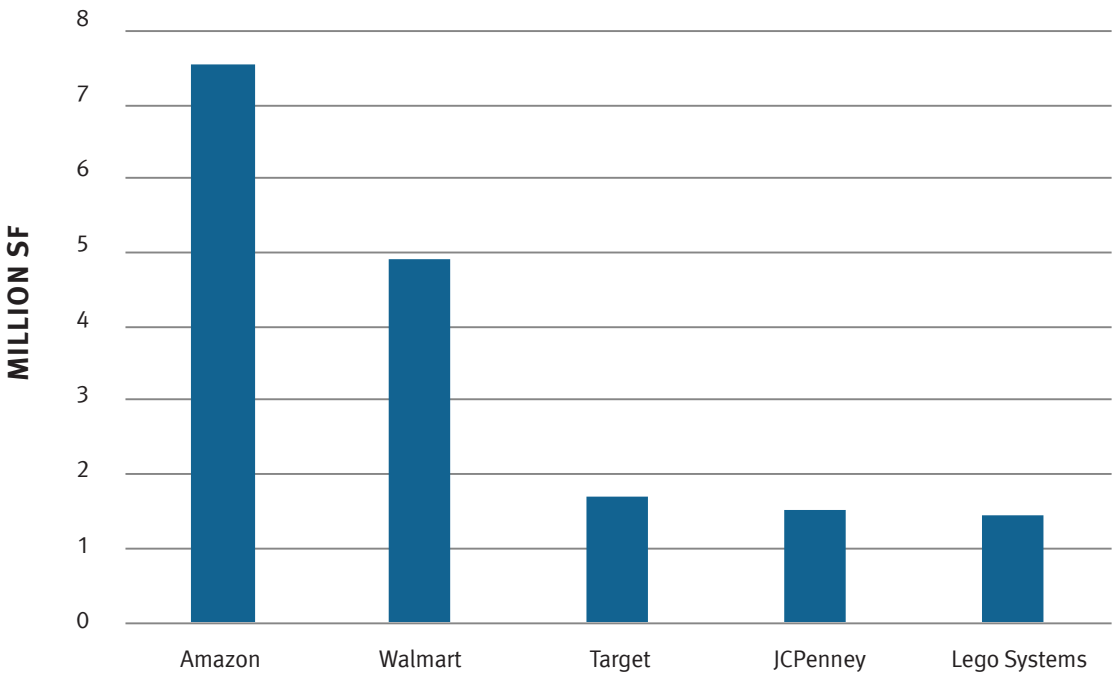
KEY FACTS

- ◆ Multi-modal options include eight major highways, air freight, parcel delivery hubs and three Class 1 freight rail lines. Dallas/Fort Worth has the nation's second-busiest inland port, and is a four-day rail transit from Southern California's seaports, three-days from Chicago and Atlanta and a single-day from the Port of Houston.
- ◆ FedEx operates their southwest regional sortation hub in Dallas/Fort Worth.
- ◆ A pro-business environment that is home to a cost-competitive labor force.
- ◆ First generation space is available to accommodate large-box, modern fulfillment center operations, offering ceiling heights of 36'+ for mezzanine levels and large yard space for truck and employee parking. Many buildings are located next to entitled land sites that can support organic tenant growth/expansions.
- ◆ Lease rates for Class A space are substantially less than other major U.S. logistics corridors.
- ◆ Based on Texas' central location and the aforementioned infrastructure and property market fundamentals, Dallas/Fort Worth is evolving into a regional distribution hub that serves the southern half of the United States.
- ◆ Dallas/Fort Worth is within a one-day drive time of 37% of the nation's population

BASED ON TEXAS' CENTRAL LOCATION, INFRASTRUCTURE AND PROPERTY MARKET FUNDAMENTALS, DALLAS/FORT WORTH IS EVOLVING INTO A REGIONAL DISTRIBUTION HUB THAT SERVES THE SOUTHERN HALF OF THE UNITED STATES.



FIVE LARGEST RETAIL/E-COMMERCE OCCUPIERS
SPRING 2017



FIVE LARGEST RETAIL/E-COMMERCE DEALS
12 MONTHS ENDING MARCH 2017

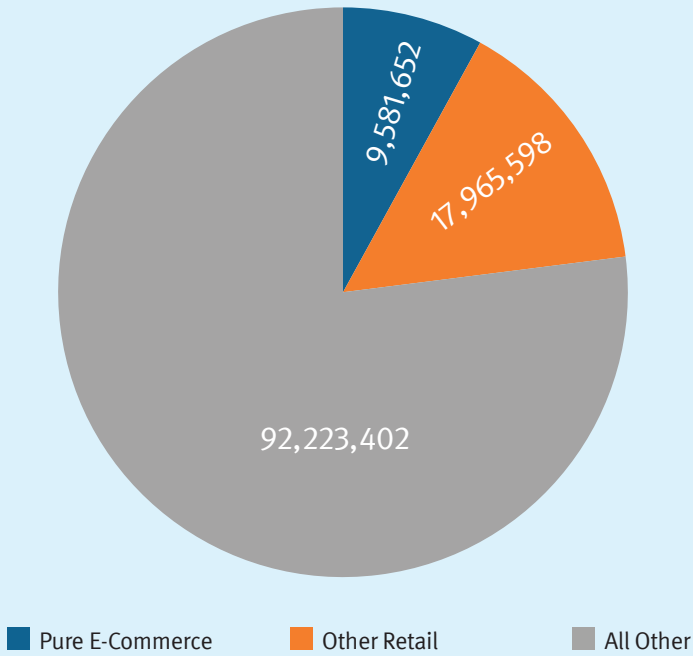
Company	Deal SF	Address	City/Submarket
Lego Systems	1,440,000	5600 Mark IV Pkwy	Fort Worth
Amazon	1,052,380	2701 W Bethel Rd	Coppell
Amazon	1,041,879	15201 Heritage Pkwy	Fort Worth
Chewy Inc	663,000	7243 Grady Niblo Rd	Dallas
Amazon	558,600	4601 Gold Spike Dr	Fort Worth

FIVE SMALLER RETAIL/E-COMMERCE DEALS
12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
In Your Face Apparel	31,413	3200 Belmeade Dr	Carrollton
Rynn's Luggage	38,189	1808 Monetary Ln	Carrollton
Walmart	39,900	10425 Plano Rd	Dallas
UPS Supply Chain Solutions	42,020	1415 S Loop 12	Irving
Best Buy Warehousing Logistics	43,736	2060-2080 McDaniel Dr	Carrollton

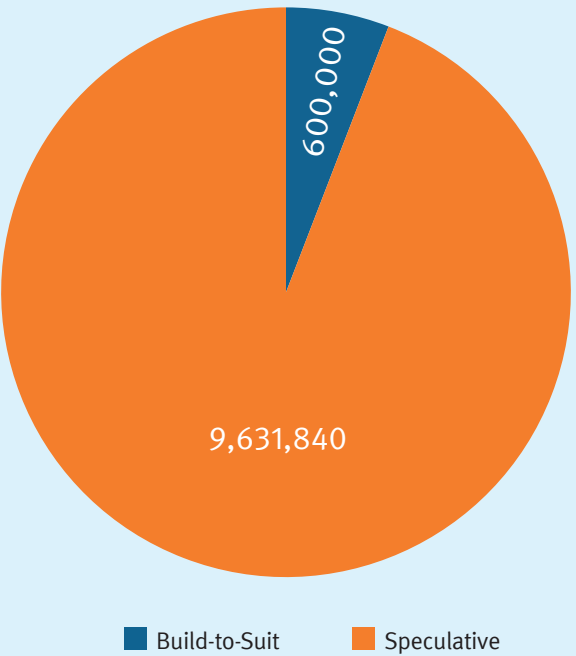
BIG BOX OCCUPIERS

TOTAL = 119,770,652 SF



BIG BOX SQUARE FEET UNDER CONSTRUCTION

TOTAL = 10,231,840 SF

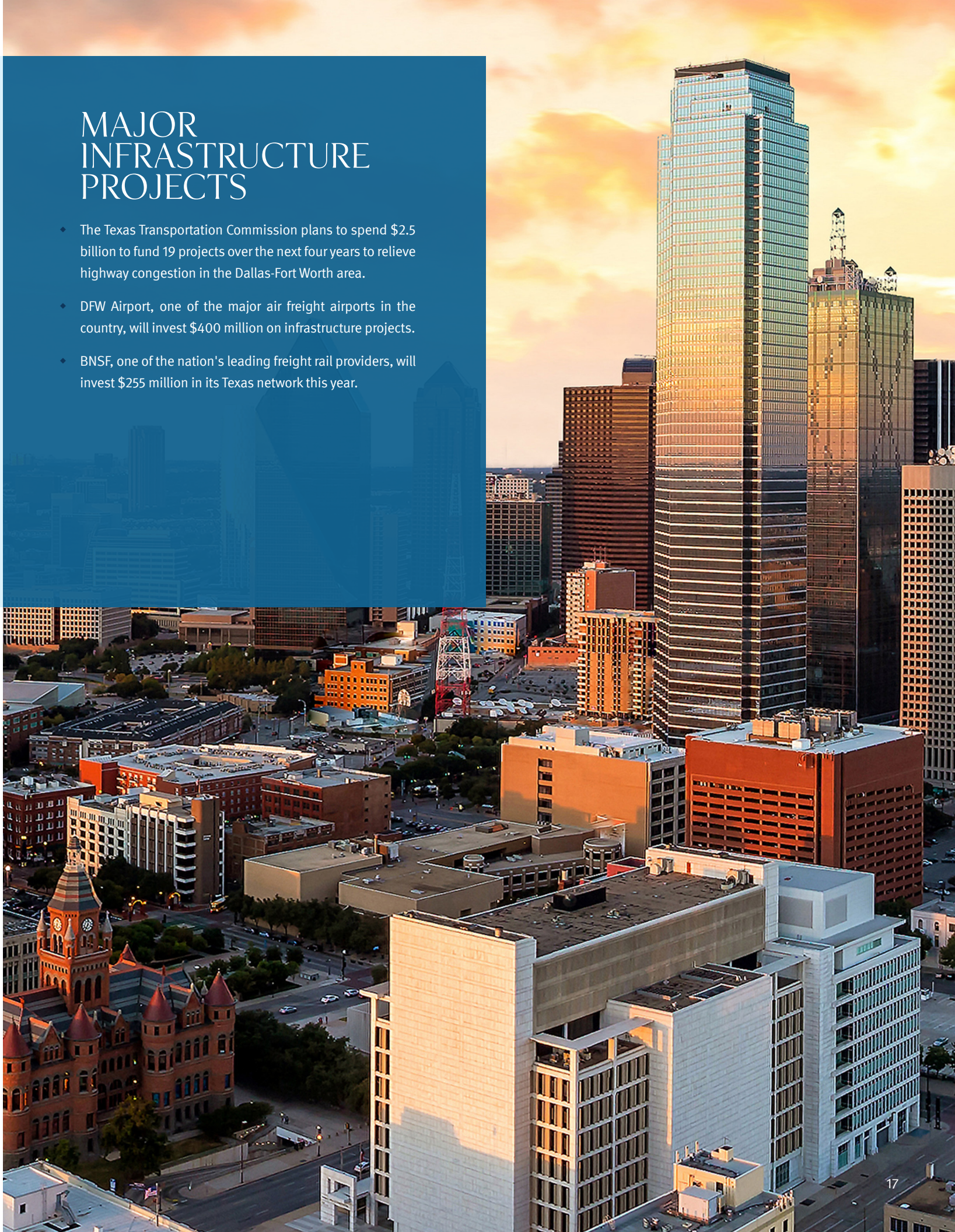
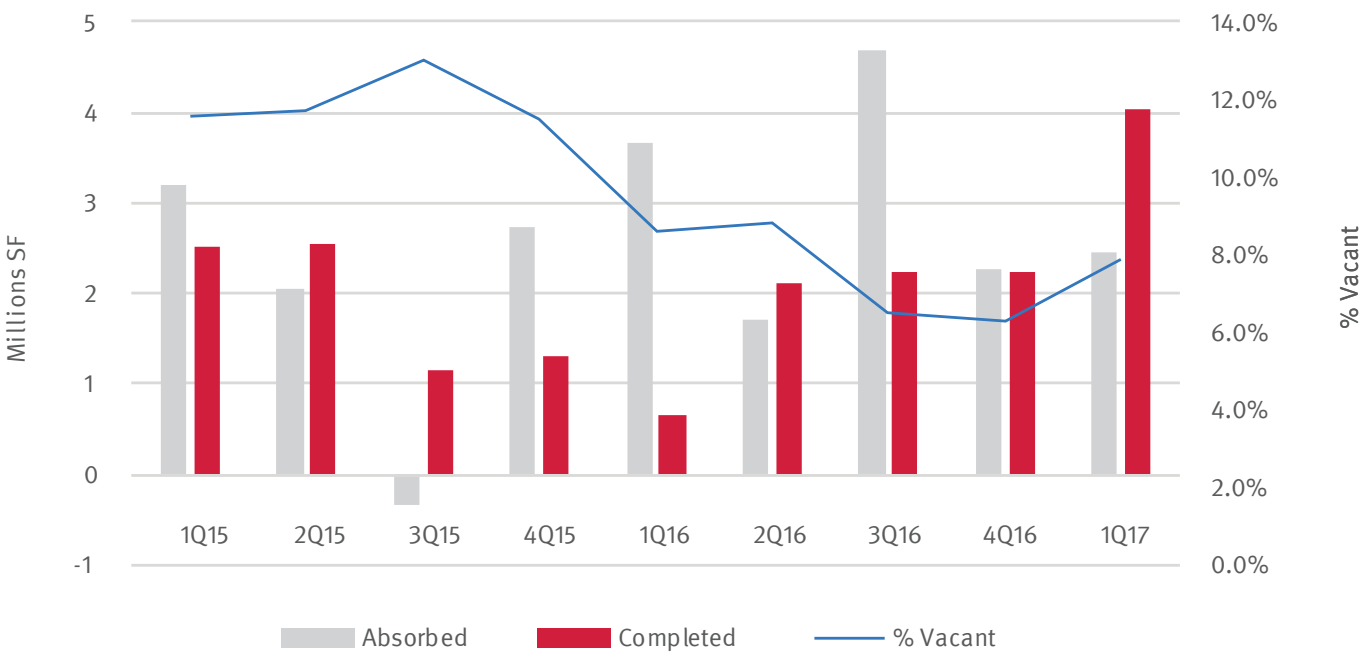


MAJOR INFRASTRUCTURE PROJECTS

- The Texas Transportation Commission plans to spend \$2.5 billion to fund 19 projects over the next four years to relieve highway congestion in the Dallas-Fort Worth area.
- DFW Airport, one of the major air freight airports in the country, will invest \$400 million on infrastructure projects.
- BNSF, one of the nation's leading freight rail providers, will invest \$255 million in its Texas network this year.

DALLAS/FORT WORTH

BIG BOX KEY STATISTICS 2015-Q1 TO 2017-Q1





CHICAGO

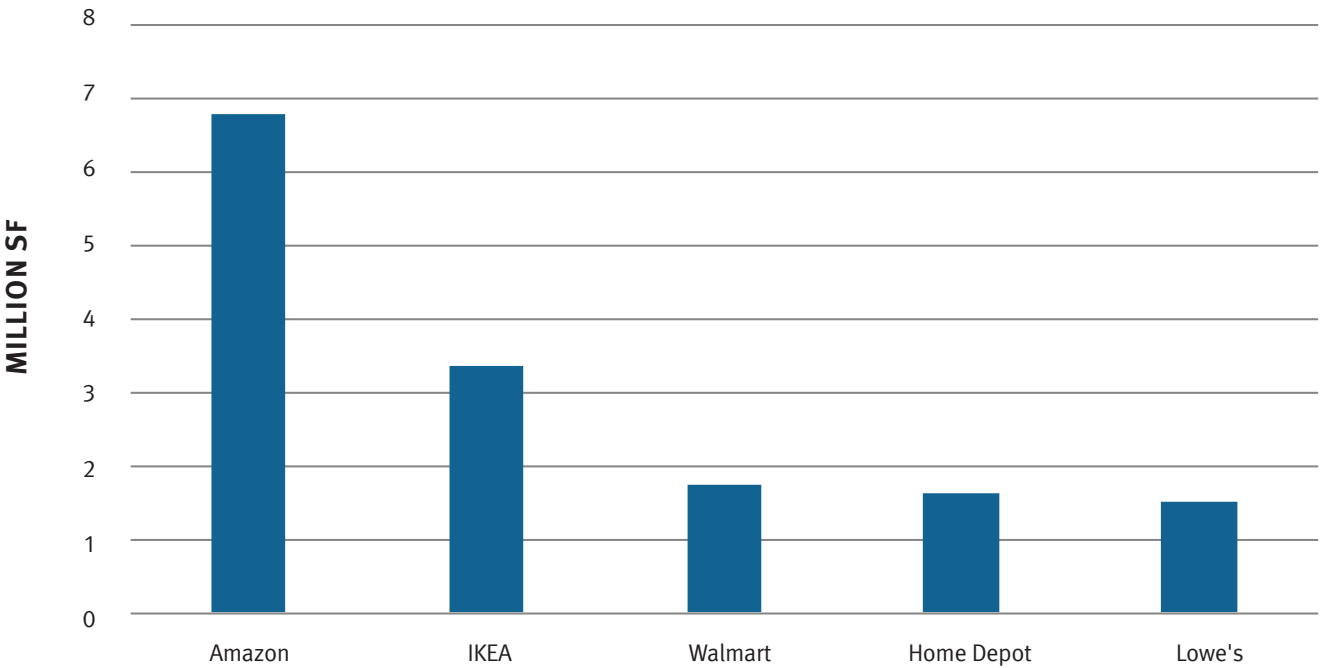
KEY FACTS

- Chicago is a prime e-commerce hub due to high population density, central location and strong transportation infrastructure, including waterways, interstate highways, rail lines, airports and several intermodal facilities.
- Chicago is home to two major freight airport hubs. O'Hare and Midway Airports supported nearly 1.5 million tons of freight cargo last year, up 23% from 2013.
- Chicago has access to 65 million people or roughly 20% of the U.S. population within a 400-mile driving radius.
- CenterPoint Intermodal Center in Joliet is the largest master-planned inland port in North America.
- Chicago has an emerging network of companies that make e-commerce infrastructure work, including payments processors, fraud detectors and data analysts. The list includes Braintree, FeeFighters, Trustwave, W. Caprap Consulting Group and Rippleshot.

CHICAGO HAS AN EMERGING NETWORK OF COMPANIES THAT MAKE E-COMMERCE INFRASTRUCTURE WORK, INCLUDING PAYMENTS PROCESSORS, FRAUD DETECTORS AND DATA ANALYSTS. THE LIST INCLUDES BRAINTREE, FEEFIGHTERS, TRUSTWAVE, W. CAPRAP CONSULTING GROUP AND RIPPLESHOT.



FIVE LARGEST RETAIL/E-COMMERCE OCCUPIERS
SPRING 2017



FIVE LARGEST RETAIL/E-COMMERCE DEALS
12 MONTHS ENDING MARCH 2017

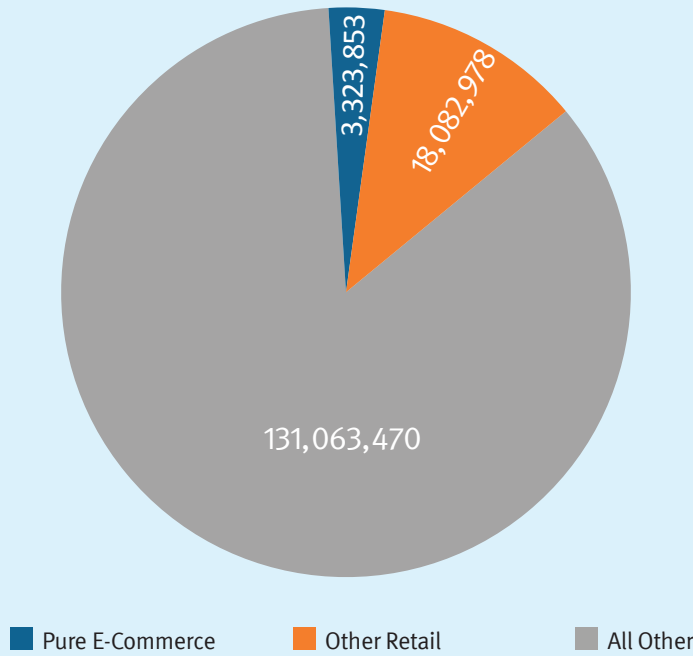
Company	Deal SF	Address	City/Submarket
Amazon.com	767,161	1125 Remington Blvd	I-55 Corridor
Amazon.com	746,772	201 Emerald Road	I-88 Corridor
Amazon.com	626,848	1750 Bridge Drive	Far North
Regent Products	531,227	8999 Palmer St	West Cook Industrial
Party City Holdings	440,343	2727 W Diehl Road	I-88 Corridor

FIVE SMALLER RETAIL/E-COMMERCE DEALS
12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
DesignPac	48,436	9450 W Sergo Dr	I-55 Corridor
Budget Golf	45,744	3301-3311 Corporate Drive	I-80 Corridor
Walmart	43,200	4732 Prairie Hill Rd	I-39 Corridor
Firefly Store Solutions	30,695	5101 W 122nd Street	South Cook
Phillips Electronics	30,523	2300 W Windsor Court	North DuPage

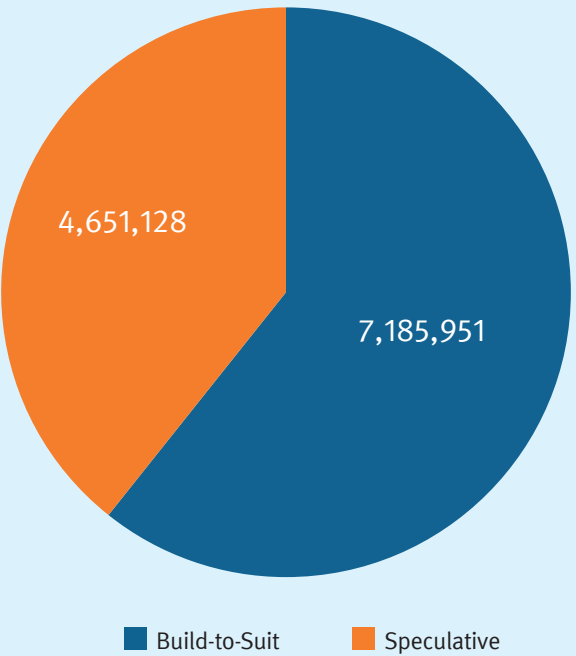
BIG BOX OCCUPIERS

TOTAL = 152,470,301 SF



BIG BOX SQUARE FEET UNDER CONSTRUCTION

TOTAL = 11,837,079 SF

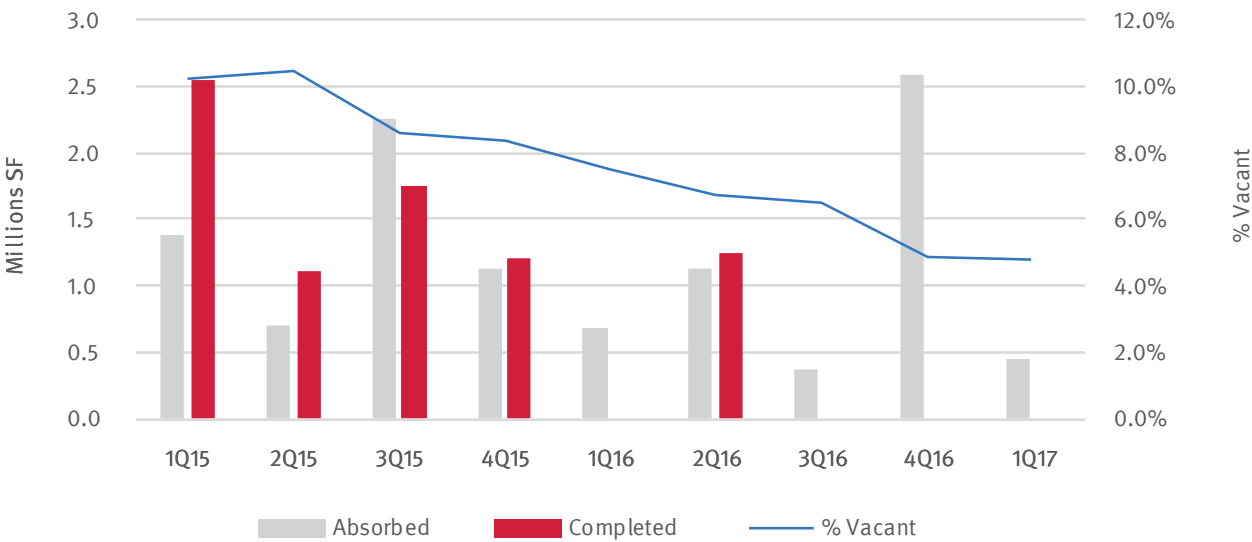


MAJOR INFRASTRUCTURE PROJECTS

- O'Hare Modernization Program (OMP): \$8 billion project that will reconfigure intersecting runways into a parallel configuration. Final runway expected to be completed by 2020.
- Elgin-O'Hare Western Access Project: \$3.4 billion project includes 17 miles of new roads with 15 new or improved interchanges. These include widening Illinois Rte. 390, extending it along Thorndale Ave to O'Hare and building a new roadway around the western border of O'Hare linking the Jane Addams Memorial Tollway (I-90) and the Tri-State Tollway (I-294). Construction began in 2015 and will continue through 2025.

CHICAGO

BIG BOX KEY STATISTICS 2015-Q1 TO 2017-Q1





ATLANTA

KEY FACTS

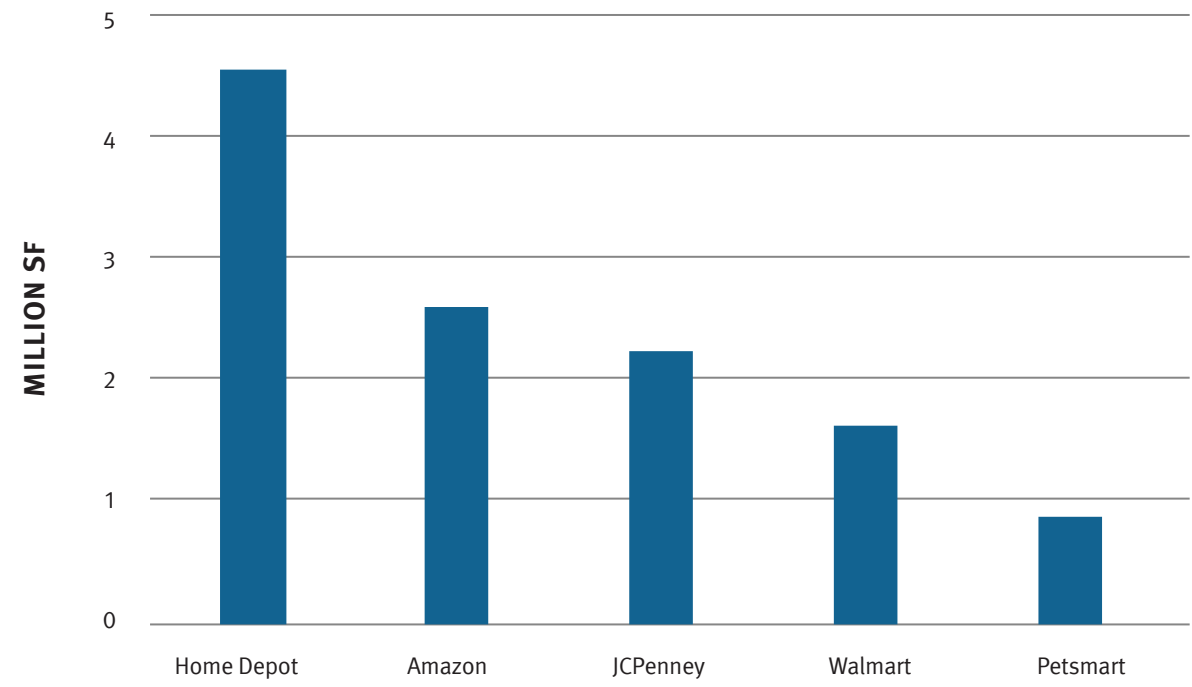
- ◆ Metro Atlanta is a strong national logistics hub thanks to its central location in the fast-growing Southeast U.S., interstate highway and rail access, and proximity to the ports of Charleston and Savannah.
- ◆ As the nation’s fastest growing and fourth-busiest container port, the Port of Savannah handles more than 3 million twenty-foot equivalent container units per year for more than 21,000 U.S. businesses.
- ◆ UPS, headquartered in Atlanta, recently announced it will build a 1.2 million-square-foot regional sorting and distribution hub on a 341-acre site in a depressed part of Fulton County.
- ◆ Multiple free trade zones attract occupiers such as Samsung Electronics Co., which is opening a 550,000-square-foot center at the SouthCreek Industrial Park in Fairburn.

**HARTSFIELD-JACKSON ATLANTA
INTERNATIONAL AIRPORT, THE
WORLD'S BUSIEST, IS ALSO A MAJOR
CARGO AIRPORT, OFFERING DIRECT
SERVICE TO CHINA.**



FIVE LARGEST RETAIL/E-COMMERCE OCCUPIERS

SPRING 2017



FIVE LARGEST RETAIL/E-COMMERCE DEALS

12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
Variety Wholesalers	1,405,420	60 Herring Rd	Newnan
Wayfair	846,496	130 Distribution Dr	McDonough
Amazon	822,257	Hog Mountain Rd	Jefferson
Amazon	613,440	650 Broadway Ave	Braselton
Samsung	556,800	1525 Oakley Industrial Blvd	Fairburn

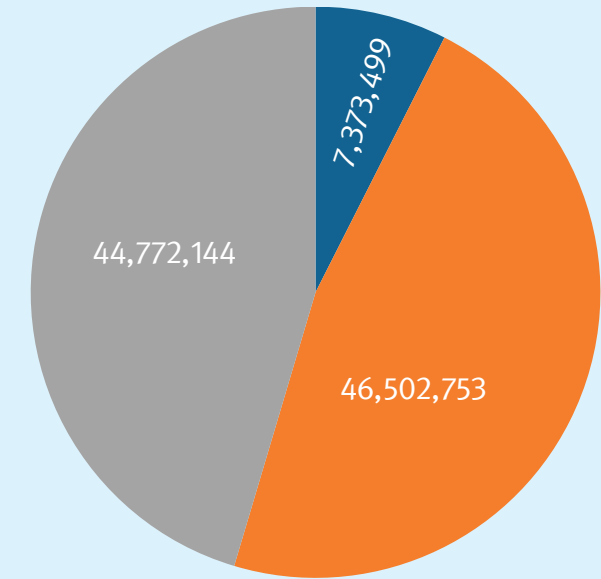
FIVE SMALLER RETAIL/E-COMMERCE DEALS

12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
UPS	99,400	1920 Shiloh Rd NW	Kennesaw
UTI Integrated Logistics	82,000	1300 Lakes Pky	Lawrenceville
APL Logistics	55,100	800 Westlake Pky SW	Atlanta
A&R Logistics	52,583	4800 Coates Dr	Fairburn
HWC Logistics, Inc	49,646	5158 Kennedy Rd	Forest Park

BIG BOX OCCUPIERS

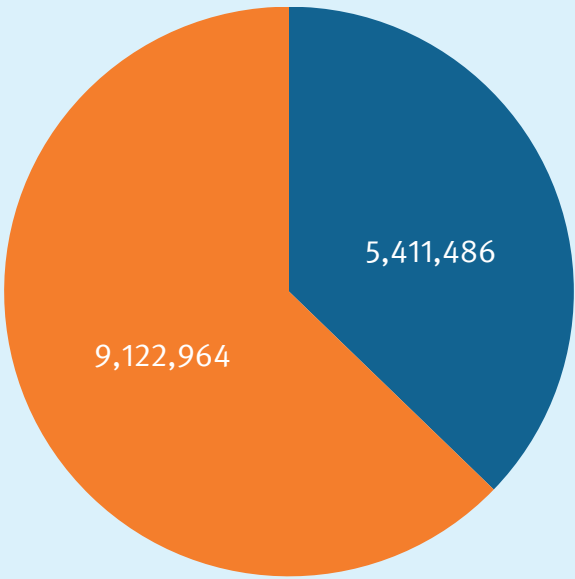
TOTAL = 98,648,396 SF



Pure E-Commerce Other Retail All Other

BIG BOX SQUARE FEET UNDER CONSTRUCTION

TOTAL = 14,534,450 SF



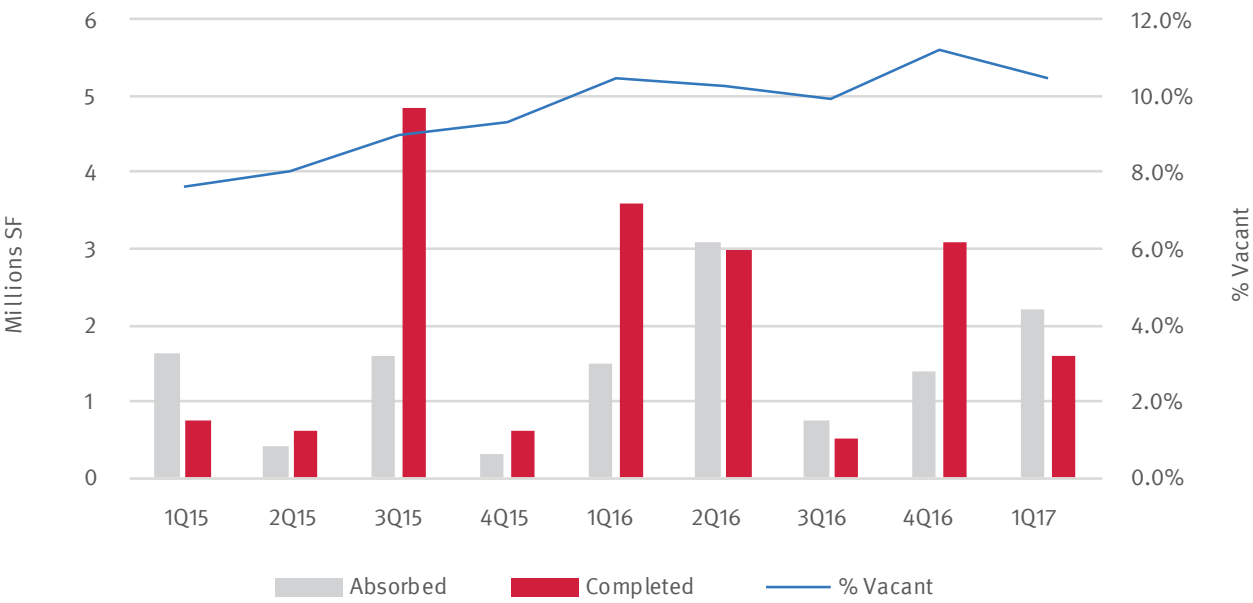
Build-to-Suit Speculative

MAJOR INFRASTRUCTURE PROJECTS

- Construction is underway on the Savannah Harbor Expansion Project (SHEP) which will deepen the 18.5 mile outer harbor to 49 feet and the Savannah River channel to 47 feet. The dredging will accommodate post-Panamax vessels passing through the expanded Panama Canal. The U.S. Army Corps of Engineers recently revised the project's expected cost upward by a third to nearly \$1 billion and extended the completion date by two years to 2022.
- The South Carolina Port Authority and State of South Carolina are planning \$2 billion in port and port-related capital investments over the next 10 years. These include a new container terminal that will increase container capacity by 50% (completion in 2020); deepening the harbor to 52 feet to service post-Panamax ships (completion by 2020); and additional infrastructure improvements.
- The Atlanta Region's Plan, a 25-year spending blueprint, calls for \$85 billion in infrastructure and other improvements. These include \$28 billion for express toll lanes, widening major arterial roads, 13 new and 22 upgraded highway interchanges, and expanded transit options.

ATLANTA

BIG BOX KEY STATISTICS 2015-Q1 TO 2017-Q1



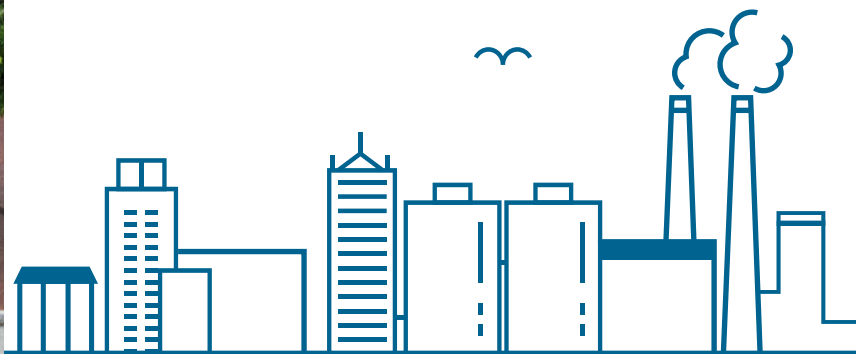


CENTRAL PENNSYLVANIA

KEY FACTS

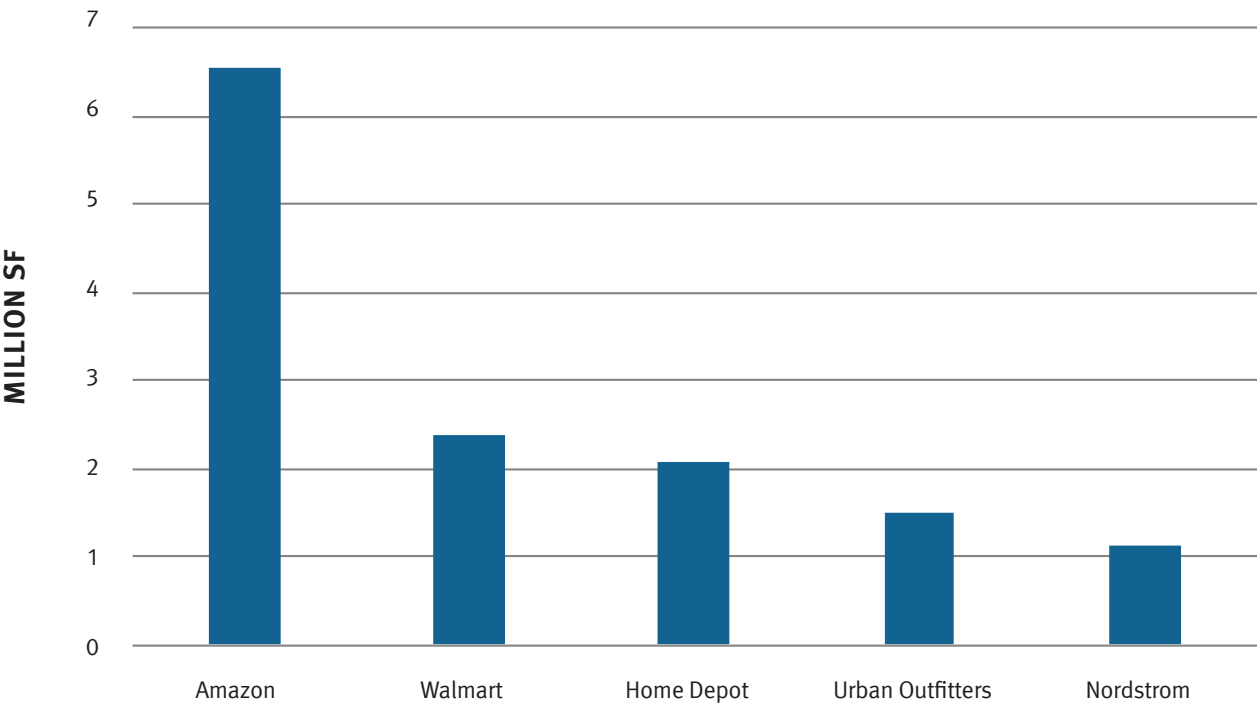
- ◆ Proximity to major Northeast markets
- ◆ Developed transportation infrastructure (highways and rail)
- ◆ Steady growth in population. From 2010-2016: Cumberland County grew by 5.6%, Lehigh County by 3.9% and Lebanon County by 4.0%.
- ◆ Availability of land in close proximity to full service interchanges of major highways.

**STEADY GROWTH IN POPULATION.
FROM 2010-2016: CUMBERLAND
COUNTY GREW BY 5.6%, LEHIGH
COUNTY BY 3.9% AND LEBANON
COUNTY BY 4.0%.**



FIVE LARGEST RETAIL/E-COMMERCE OCCUPIERS

SPRING 2017



FIVE LARGEST RETAIL/E-COMMERCE DEALS

12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
Amazon	1,106,442	1610 Van Buren Road	Lehigh Valley
Ace Hardware	1,100,000	139 Fredericksburg Road	Central PA
Whirlpool	1,100,000	100 Fry Drive	Central PA
Kohler	1,059,650	221 Allen Road	Central PA
Amazon	399,500	250 Enterprise Way	Northeastern PA

SMALLER RETAIL/E-COMMERCE DEALS

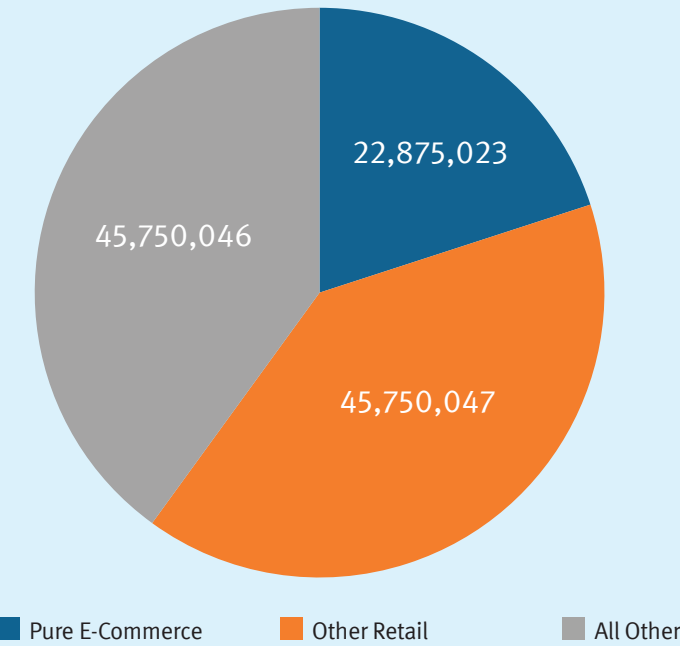
12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
Home Depot	91,950	1400 Distribution Drive	Central PA
K & A Appliances	29,704	135 Independence Ct	Lancaster (Greater Phila.)

CENTRAL PENNSYLVANIA

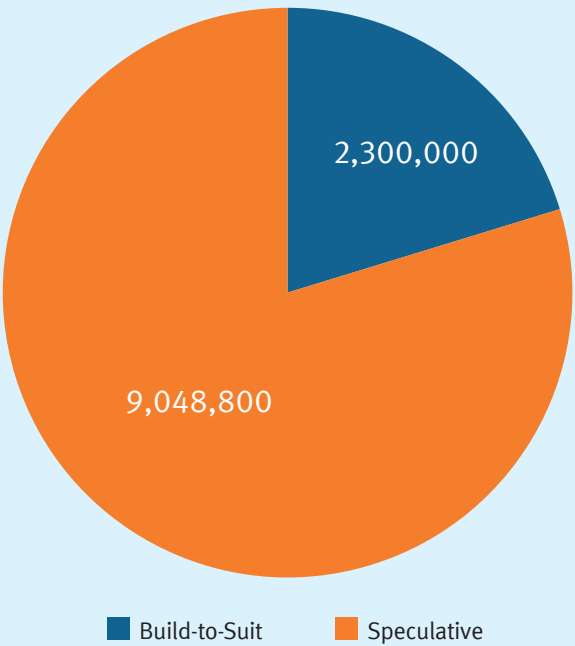
BIG BOX OCCUPIERS

TOTAL = 114,375,116 SF



BIG BOX SQUARE FEET UNDER CONSTRUCTION

TOTAL = 11,348,800 SF

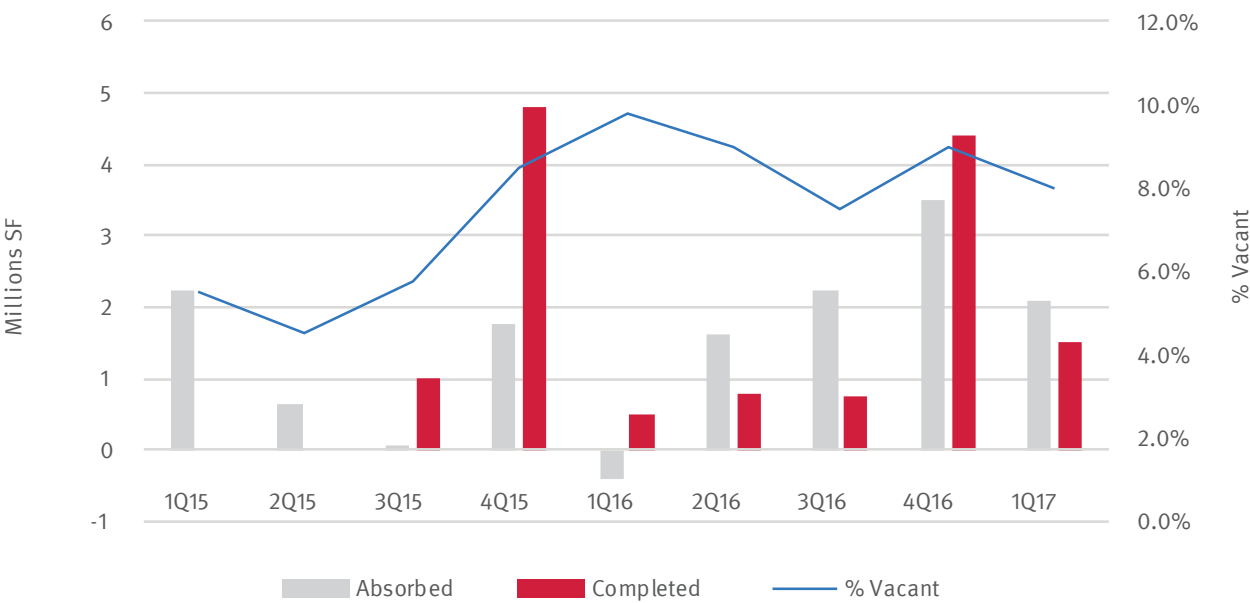


MAJOR INFRASTRUCTURE PROJECTS

- I-81 Interchange and Navy Way Extension, completed in 2016, allowed for reduced congestion and increased mobility along I-81 by combining two access points on each of the northbound and southbound lanes into one, installing new roundabouts, renovating four existing bridges and creating two new bridges. The new Navy Way Road was built on property in the Wilkes-Barre/Scranton International Airport and will provide access between I-81 and the area's industrial parks.
- Three miles of I-81 in Lower Paxton Township will be widened by adding an additional lane to that stretch. The goal is to reduce congestion along that section of the corridor.
- In 2016, Pennsylvania awarded \$2.1 million from the Multimodal Transportation Fund for infrastructure planning along Franklin Valley Road in Lackawanna County. The location cannot support commercial traffic and will need to be upgraded to accommodate Crystal Window & Door Systems' future manufacturing plant.

CENTRAL PENNSYLVANIA

BIG BOX KEY STATISTICS 2015-Q1 TO 2017-Q1



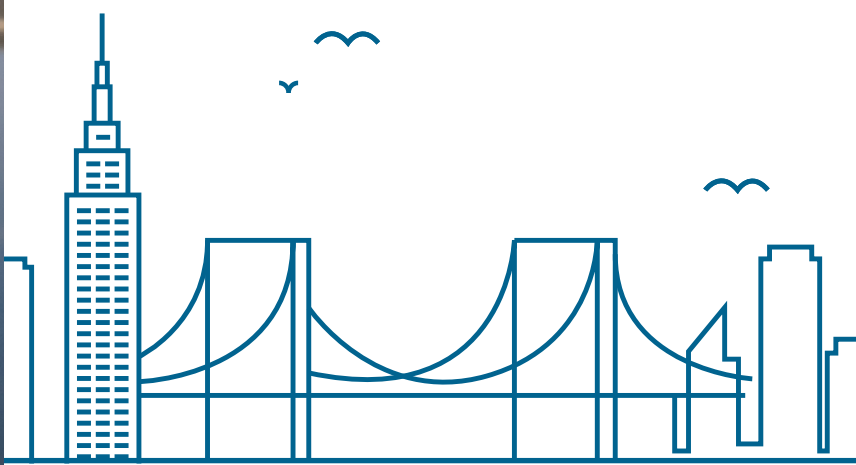


NORTHERN NEW JERSEY

KEY FACTS

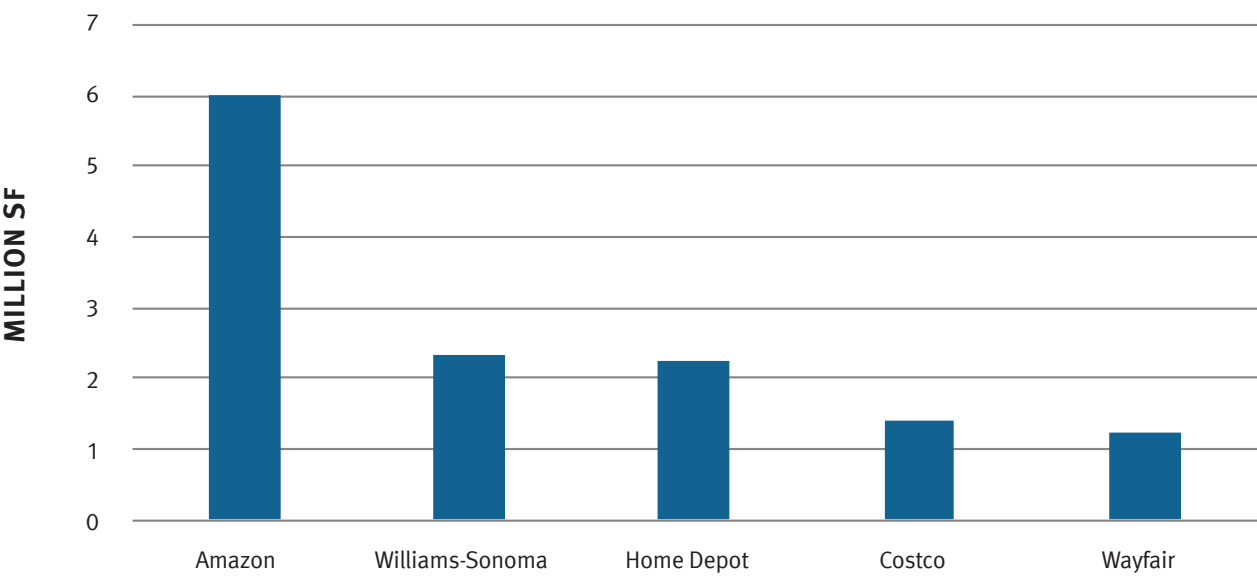
- ♦ The Port of New York/New Jersey is the second largest in the nation and the largest along the East Coast. Completion of the Panama Canal widening has made Port Newark more attractive for shippers.
- ♦ Newark-Liberty International Airport is home to a 2.0-million-square-foot air cargo hub for FedEx and also serves as a regional hub for United Airlines.
- ♦ New Jersey has a robust highway network, including I-95 which runs from Canada to Florida. I-80 and I-78 provide connections west through Pennsylvania.
- ♦ The market benefits from an extensive rail system along the Northeast Corridor and inland.

THE NEW YORK AREA'S LARGE POPULATION OF 20.2 MILLION DRIVES LOCALLY-BASED WAREHOUSE DEMAND, WHILE PROXIMITY TO OTHER LARGE METROS, SUCH AS PHILADELPHIA AND BOSTON, MAKE IT A STRATEGIC LOCATION FOR REGIONAL DISTRIBUTION AS WELL.



FIVE LARGEST RETAIL/E-COMMERCE OCCUPIERS

SPRING 2017



FIVE LARGEST RETAIL/E-COMMERCE DEALS

12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
Wayfair	1,240,967	48-50 Station Rd	Exit 8A
Amazon	923,000	2170 State Route 27	Exit 10/Edison
Target	718,219	980 High Street	Exit 11/Perth Amboy/GSP
Amazon	616,992	698 Route 46	Meadowlands
Central Garden & Pet	550,050	965 Cranbury South River Rd	Exit 8A

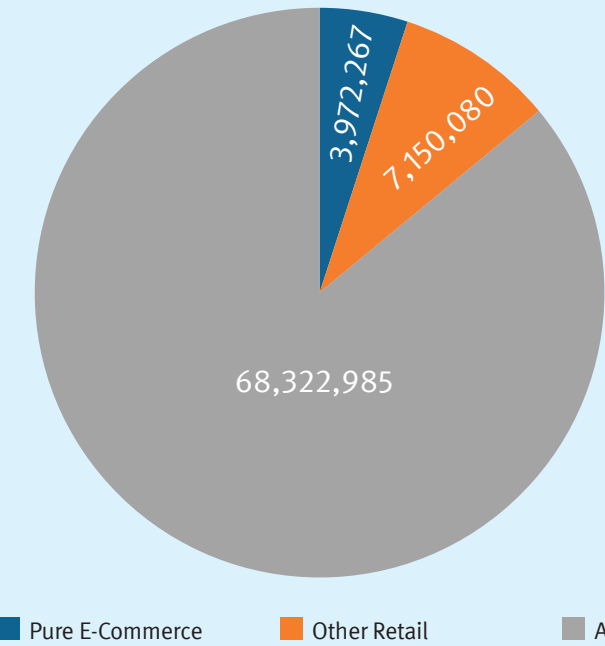
FIVE SMALLER RETAIL/E-COMMERCE DEALS

12 MONTHS ENDING MARCH 2017

Company	Deal SF	Address	City/Submarket
Royal Cabinetry	63,153	140 Seaview Dr	Meadowlands
Farren Logistics	49,500	1 Bell Dr	Bergan Central
Hanjin Intermodal America	35,629	65 Railroad Ave	Bergan Central
FedEx Freight	78,600	100 3rd Ave	Exit 13A/Elizabeth
Forte Distribution	66,920	95 Mayhill St	Bergan Central

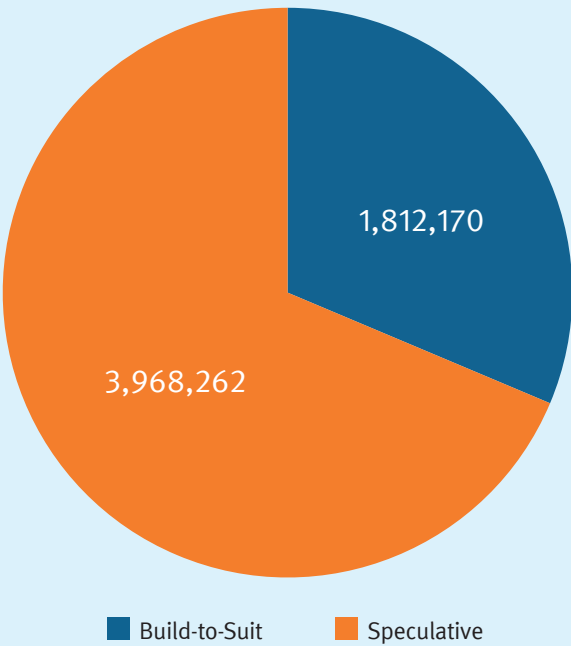
BIG BOX OCCUPIERS

TOTAL = 79,445,332 SF



BIG BOX SQUARE FEET UNDER CONSTRUCTION

TOTAL = 5,780,432 SF



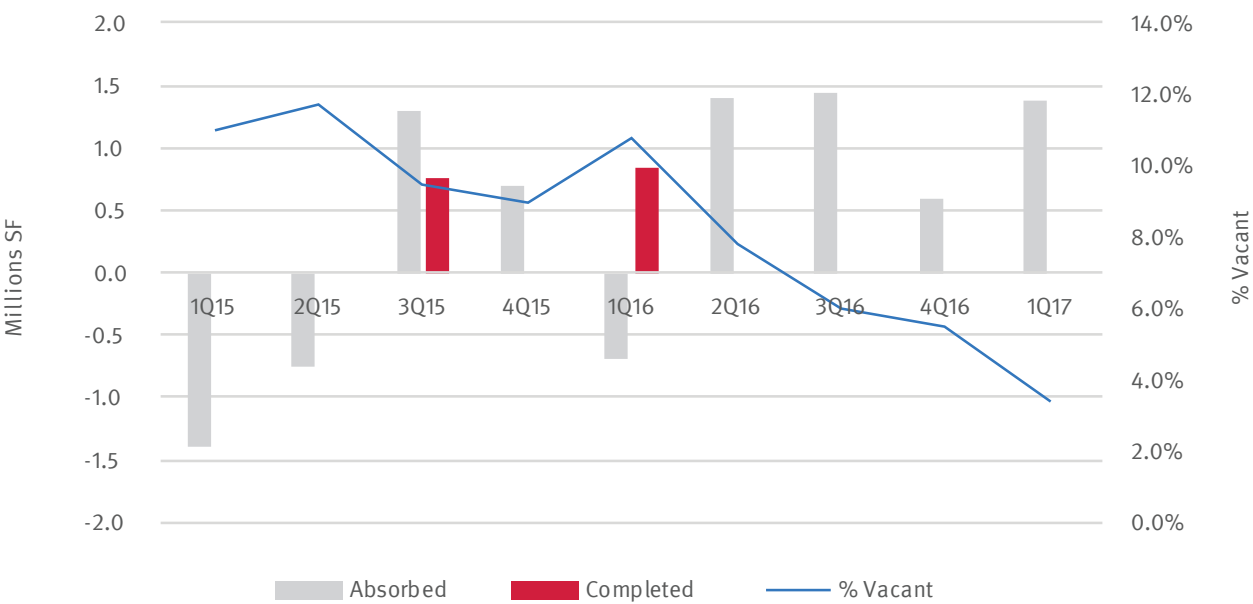
MAJOR INFRASTRUCTURE PROJECTS

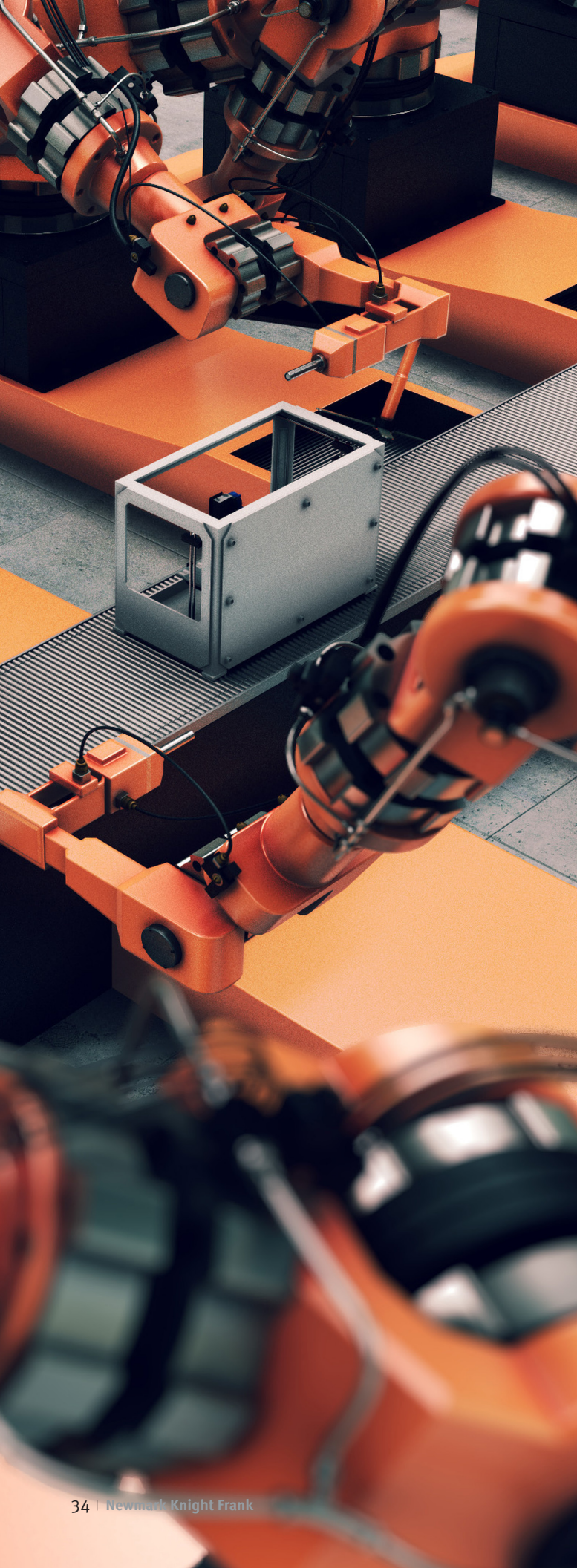
- ◆ \$1.6 billion Bayonne Bridge elevation project is slated for completion in summer 2017. The height is being raised from 151 to 215 feet to allow ships larger than 9,500 TEUs to reach major container terminals in Elizabeth and Newark.
- ◆ Terminal operators at the Port of New York and New Jersey have spent \$2.0 billion on upgrades such as new cranes to accommodate larger ships passing through the expanded Panama Canal.
- ◆ At the end of 2014, the New Jersey Turnpike widening program was completed. The project doubled the capacity on a 35-mile stretch of chronically congested roadway between Exits 6 and 9.



NORTHERN NEW JERSEY

BIG BOX KEY STATISTICS 2015-Q1 TO 2017-Q1





OPPORTUNITIES AND CHALLENGES FOR TENANTS AND INVESTORS/ DEVELOPERS

With limited supply in the pipeline, low vacancy, robust absorption, and strong prospects for added demand for industrial space, this asset class appears an ideal target for our investor and developer clients in locations where retailing's requirements are high for storage, distribution, and related logistics.

For our tenant customers the opportunities may be best for big box distribution tenancy in the six hubs identified herein due to the scale of these pivotal markets. But not to be overlooked are other traditional coastal and inland distribution markets proximate to airports, ports, and interstate highway junctions. The "last mile" delivery solution for most retailers and distributors puts in play virtually every industrial marketplace, regardless of scale.

Challenges abound for the investor and developer, as the distribution industry is transforming with "last mile" technology such as delivery drones. But other trends like rapidly rising land values and increasingly congested highways represent challenges to the development industry.

The challenges for our tenant customers appear to be rapidly rising rents in many markets, very significant tenant investment in automation, and fast-changing technology.

Whether a landlord or tenant we see many opportunities ahead in the industrial/distribution space, with challenges well worth tackling due to the way in which this product type is facilitating consumers' desire for convenient home delivery of goods.

GLOSSARY

- ◆ Industrial space: Includes warehouse/distribution, general industrial, R&D/flex, and incubator buildings.
- ◆ Warehouse/distribution space: Typically, a suite size of 25,000 square feet or greater, with a minimum clearance height of 16' and up, a bay depth of up to 400', dock loading and an office build-out of 5-10% of the space.
- ◆ General industrial: Typically, a suite size of 10,000 square feet or greater, with a minimum clearance height of 16' or greater, a bay depth of up to 200', dock or ground loading and an office build-out of 10-30% of the space. Common space uses include manufacturing, transportation, service or construction.
- ◆ R&D/flex: Typically, a suite size of 5,000 square feet or greater, with a minimum clearance up to 16', a bay depth of up to 120', ground loading and an office build-out of 30% or greater. Common space uses include back office, R&D/lab, light assembly, and retail/showroom.
- ◆ Incubator: Typically, a suite size of up to 5,000 square feet, with a clearance height up to 16', a bay depth of up to 80', ground loading and no standard for office build-out. Common space uses include small office, small retail, and storage.
- ◆ Big box industrial space: Includes all warehouse/distribution facilities greater than or equal to 500,000 square feet.
- ◆ Geographic coverage of:
 - ◆ Southern California: Includes the Los Angeles, Orange County, and Inland Empire industrial markets.
 - ◆ Central Pennsylvania: Includes the counties of Lehigh Valley, Northampton, Lackawanna, Luzerne, Carbon, Monroe, Schuylkill, Dauphin, Lebanon, Perry, Franklin, Cumberland, York and Adams.
 - ◆ Northern New Jersey: Includes the counties of Bergen, Essex, Hudson, Morris, Passaic, Union, Somerset, Ocean, Monmouth, Middlesex, Mercer, and Hunterdon.

SOURCES

In addition to NKF's proprietary industrial and office market data base, the following sources were used in this analysis:

- ◆ Amazon.com
- ◆ Amazon, 10-K, FY ending 12/31/16
- ◆ BI Intelligence, (2017, February 2017).Walmart's e-commerce sales soared in its latest quarter. Retrieved July 12, 2017, from <http://www.businessinsider.com/walmarts-e-commerce-sales-soared-in-its-latest-quarter-2017-2>
- ◆ Cami, J. (2017, May 19). Walmart's online sales soar. Retrieved July 12, 2017, from <http://www.businessinsider.com/walmarts-online-sales-soar-2017-5>
- ◆ CoStar
- ◆ National Council of Real Estate Investment Fiduciaries' national Property Indices 2012 - 2016
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- ◆ U.S. Bureau of Labor Statistics
- ◆ U.S. Census Bureau
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