



The Real Estate Mantra - Locate Near Public Transportation



AMERICAN PUBLIC TRANSPORTATION ASSOCIATION



NATIONAL
ASSOCIATION of
REALTORS®

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THE REAL ESTATE MANTRA -
**LOCATE NEAR PUBLIC
TRANSPORTATION**

October 2019

APTA's Purpose Statement

APTA leads public transportation in a new mobility era, advocating to connect and build thriving communities.

PROPERTY NEAR TRANSIT HAS HIGHER APPRECIATION (2012-2016)

**INCREASED
HOME
VALUES**

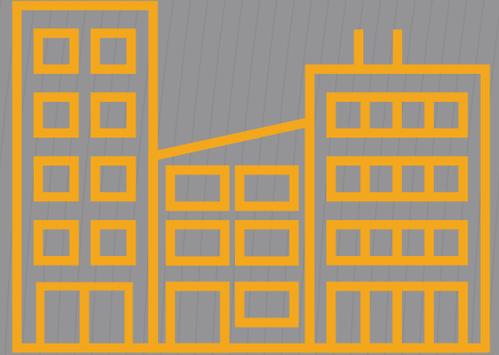


**MEDIAN SALES PRICE
INCREASES WERE**

4-24%

**HIGHER NEAR
TRANSPORTATION**

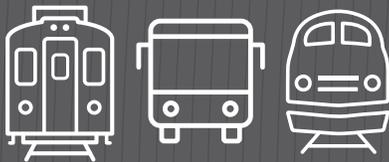
**INCREASED VALUE
OF OFFICE SPACE**



**MEDIAN SALES PRICE PER
SQUARE FOOT OF OFFICE
PROPERTIES INCREASED**

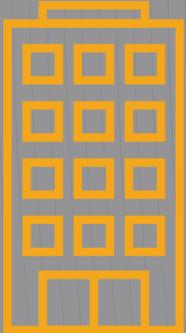
5-42%

**MORE IN PUBLIC TRANSIT
STATION AREAS**



in regions served by
multiple transit modes

**HIGHEST GAINS
NEAR RAPID
RAIL TRANSIT,
BRT, AND
COMMUTER RAIL**



**INCREASED DEMAND FOR
RENTALS NEAR TRANSIT**

RENT PRICE INCREASES WERE

2-14%

**HIGHER IN PUBLIC
TRANSIT STATION AREAS**

**40,500 RENTAL UNITS ADDED
ACROSS ALL 7 STUDY REGIONS**

**EMPLOYERS PREFER
TO LOCATE IN**



**URBAN
CORES**

TO ATTRACT TALENT



**1 in 4 HOUSEHOLDS
NEAR TRANSIT
DOES NOT OWN A VEHICLE**

**THESE HOUSEHOLDS SPEND
\$2,500-\$4,400**



**LESS
ON TRANSPORTATION**

Executive Summary

- In the post-recession real estate market, residential sales have recovered and are booming in some regions.
- In the seven regions analyzed (Boston, Eugene, Hartford, Los Angeles, Minneapolis–St. Paul, Phoenix and Seattle), residential properties in proximity to public transit (defined as within a half-mile radius) performed better than properties farther from public transit.
- Between 2012 and 2016, median sales price increases near stations were 4 to 24 percentage points higher for residential properties than in areas farther from public transit. More than 43,500 occupied-units were added near transit in this time period across the seven regions.
- Commercial property values also experienced gains in the studied cities. While data availability limited the office property analysis to five regions, four of them saw median sales price per square foot increase between 5 and 42 percentage points more in transit-proximate areas when compared with areas farther from public transit.
- An increase in residential rents within transit sheds has encouraged developers and frustrated consumers. Increases in rents were between 2 and 14 percentage points higher in the public transit station area than in neighborhoods away from transit. Cities will need to keep working on housing affordability and land use policies to mitigate displacement from high-value public transit.
- In the seven regions, one in four households in public transit areas does not own a vehicle, and the cost savings are significant; on average, a household spends between \$2,500 and \$4,400 less per year on transportation.

Introduction

Since the Great Recession, the real estate market has rebounded, and many areas of the country are experiencing increased property values. There have been structural transformations in the market as well, with apartment sales now the leading subtype in the commercial sector, overtaking office building sales (traditionally the strongest commercial subtype). More and more households are also electing to live in urbanized areas close to public transit and dense with retail and other commercial amenities. As of 2016, 81 percent¹ of the country's population lives in Census-defined urban areas,² up 4 percentage points from 2010.

Easy access to destinations and activities is an important factor in home-buying decisions. The real estate mantra “location, location, location” continues to be relevant post-recession. Businesses are recognizing the benefits of locating near public transit to attract employees and customers, and to save on parking costs. Certain types of retail establishments actively seek to capture the increasing pedestrian traffic near transit stations.

This study compares the performance of residential and commercial property sales near fixed-guideway stations with areas without public transit access between 2012 and 2016 in seven regions: Boston; Eugene, Oregon; Hartford, Connecticut; Los Angeles; Minneapolis–St. Paul; Phoenix; and Seattle. These regions are served by public transit including rapid rail, commuter rail and bus rapid transit (BRT), and represent small, medium and large regions. The study is designed to update and expand APTA's 2013 study, “The New Real Estate Mantra: Location Near Transit,” which looked at residential sales price performance near transit in the years 2006 and 2011. This update was also tasked with examining the real estate performance in two BRT-only cities (Eugene and Hartford) to provide data on how public transportation affects smaller markets and whether BRT is effective in spurring value increase.

¹ (2016 American Community Survey 5-Year Estimates)

² The Census Bureau identifies two types of urban areas: Urbanized Areas (UAs) of 50,000 or more people and Urban Clusters (UCs) of at least 2,500 and fewer than 50,000 people.

Previous Research

Transit-oriented developments within urban areas have become more desirable due to their accessibility to job centers, valued amenities and cost-of-living reductions.

These neighborhoods are often more walkable, with more retail density and other amenities, and include a higher percentage of households with less reliance on vehicles. As more people look to reside in these transit-rich areas, the property market is healthy and competitive. A 2017 National Institute for Transportation and Communities report found that the average sales price of a home in Eugene increased by \$1,128 for every 100 meters closer it was to a bus rapid transit station.³

The 2008 economic downturn affected property values nationwide, but the 2013 American Public Transportation Association study⁴ showcased the lower impact of the real estate market crash on properties in proximity to transit. The report found that home values near transit enjoyed a premium for sales within a half-mile of fixed-guideway station areas. These residential sales outperformed the region by 41.6 percent. Condominiums in transit sheds showed a particularly dramatic increase in average prices. While average property values decreased for all other residential property types, they held their value better in transit areas.

Increased development in the immediate vicinity of transit stations also increases demand for retail establishments, which results in premiums on commercial property values. In Dallas, retail property values increased by 12 percent around Dallas Area Rapid Transit (DART) stations, compared with 8 percent in comparable areas. Office properties witnessed significant price rises as well—29 percent compared with 6 percent in comparable areas.⁵

The Metropolitan Council in the Minneapolis–St. Paul region completed an analysis of development along its two existing light rail corridors, along with two light rail corridors in progress. In looking at an area a half-mile radius around their stations, they found \$8.4 billion in total development.⁶

A report released by the Metropolitan Planning Council of Chicago⁷ has several relevant findings. First, it found that vacancy rates were an average of 2 percentage points lower than the regional average in locations within a half-mile of rail stations. Second, sales prices and asking rents were found to be 30 percent higher in areas closer to rail transit.

The average commercial property in rail station areas is 16 percent more expensive than commercial properties away from transit, as reported by a meta-analysis.⁸ The study also found that the impact of station location on commercial properties decreases with distance. The authors concluded that several factors can affect property values near transit, such as property type, railway station type and demographic features.

Several studies have alluded to the role of increased property prices in displacement of residents, particularly in lower-income neighborhoods. Keith Wardrip⁹ proposes strategies to preserve affordable housing and prevent economic segregation. They include preserving existing affordable housing stock through public funds, inclusionary zoning, tax-increment financing and early-stage land acquisition. Public transit agencies have been experimenting with innovative techniques to preserve affordable housing in properties they own in transit station areas.

³(National Institute for Transportation and Communities, 2017)

⁴(American Public Transportation Association, 2013)

⁵(Dallas Area Rapid Transit, 2017)

⁶(Metropolitan Council, 2018)

⁷(Metropolitan Planning Council, 2018)

⁸(Ghebregziabier Debrezion, 2007)

⁹(Wardrip, 2011)

Report Findings

In regions served by multiple transit modes, rapid rail transit sheds witnessed the highest gains, followed by BRT and commuter rail sheds.¹⁰

Between 2012 and 2016, median sales price increases near stations were 4 to 24 percentage points higher than areas farther from transit.

¹⁰ Transforming commuter rail systems into regional rail systems, with more frequent trains in off-peak and in reverse-commute directions, is being studied in several areas. Pursuing this model around the country would likely boost the value of properties within the commuter rail shed.

Figure 1: Change in Residential Sales Value 2012 & 2016

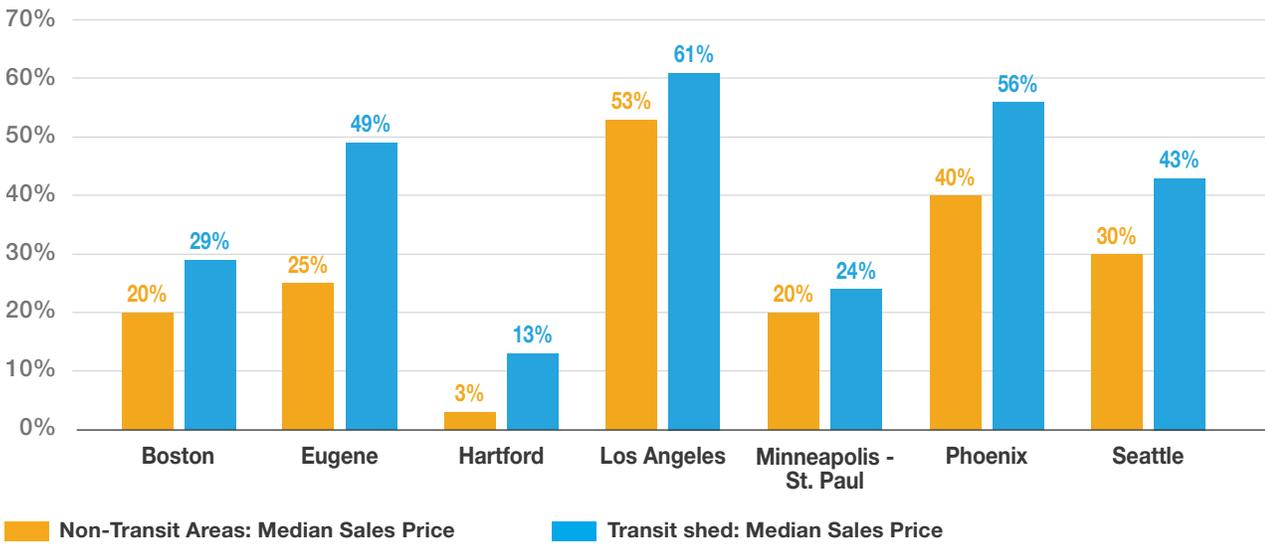
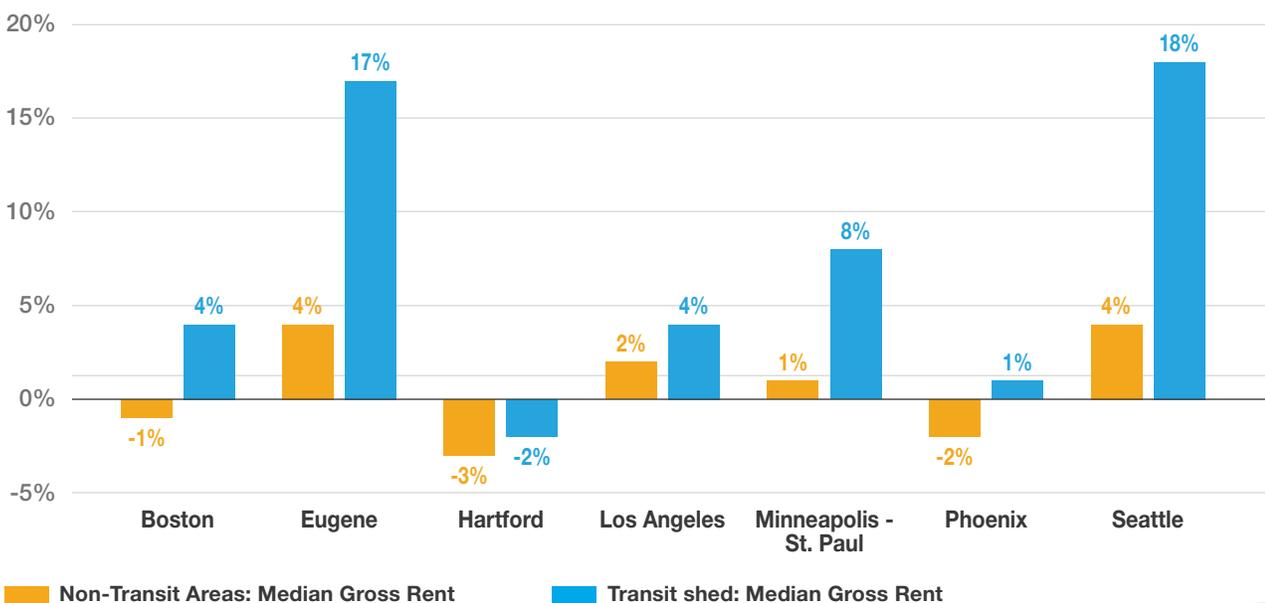


Figure 2: Change in Rents 2012 to 2016



Residential rents in transit sheds outperformed the areas beyond a half-mile of public transit (*Figure 2*). More than 43,500 units were added near transit between 2012 and 2016 across all seven regions. Of those, 40,558 were occupied by renters, presumably due to an influx of rental apartments built closer to transit stations. As the real estate market shifted after the recession, the growing demand for rentals influenced rents; increases in rents were between **2 and 14 percentage points higher** in the public transit station areas than in neighborhoods away from transit.

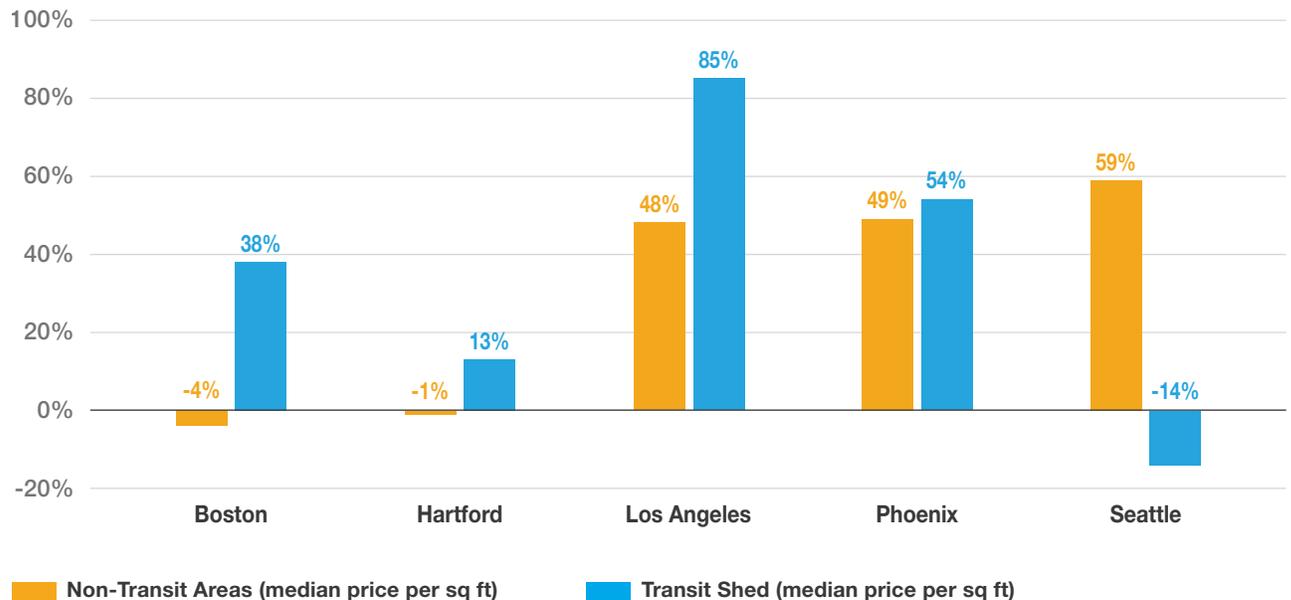
The trends in commercial sales performance are more complex (*Figure 3*). The various segments of the commercial market necessitate a closer inspection of the data. Parsing out commercial sales by office and retail type reflects a growing preference of employers to locate in urban cores to attract talent. In four of the five regions with commercial sales data (Boston, Hartford, Los Angeles and Phoenix), the median sales price per square foot of office properties increased between 5 and 42 percentage points more in transit-proximate areas when compared with areas farther from transit. The results in the

retail sectors are mixed and can possibly be attributed to a rapidly changing environment with online shopping disrupting brick-and-mortar retailers. Los Angeles' retail sales performance near transit was higher than non-transit areas, while Boston's and Seattle's median-sales-price-per-square-foot increase was less than areas farther from transit.

Residents of transit-oriented neighborhoods have greater access to jobs via transit; own fewer cars; and live in dense, walkable areas, resulting in lower transportation costs. In the seven regions, one in four households in transit areas does not own a vehicle, and the cost savings are significant; on average, a household spends between \$2,500 and \$4,400 less per year on transportation.

Overall, this study demonstrates that residential property values, residential rents and office property sales consistently performed well in proximity to public transit. The changing retail landscape nationally presents a more complex picture that will likely affect properties both near and away from transit.

Figure 3: Change in Office Sales Value 2012 to 2016



¹³ (National Transit Database, 2017)

¹⁴ (MBTA, 2017)

¹⁵ For discussion, subway/metro and light rail/streetcars are combined into the rapid rail category

light rail) network. The MBTA system provided 21.4 million¹³ trips, on average, per month in 2017. The average weekday ridership¹⁴ was 33,000 for BRT, 125,000 for commuter rail and 768,000 for rapid rail.¹⁵

In 2016, 1,020,091 people in 402,205 households resided within a half-mile of fixed-

guideway transit, representing 21.7 percent of the region's total population and 22.6 percent of households. In the transit shed, 30 percent of workers commuted by public transportation as compared with 12 percent for the region. Further, 16 percent walked or biked to work in the transit shed, compared with 7 percent in the region.

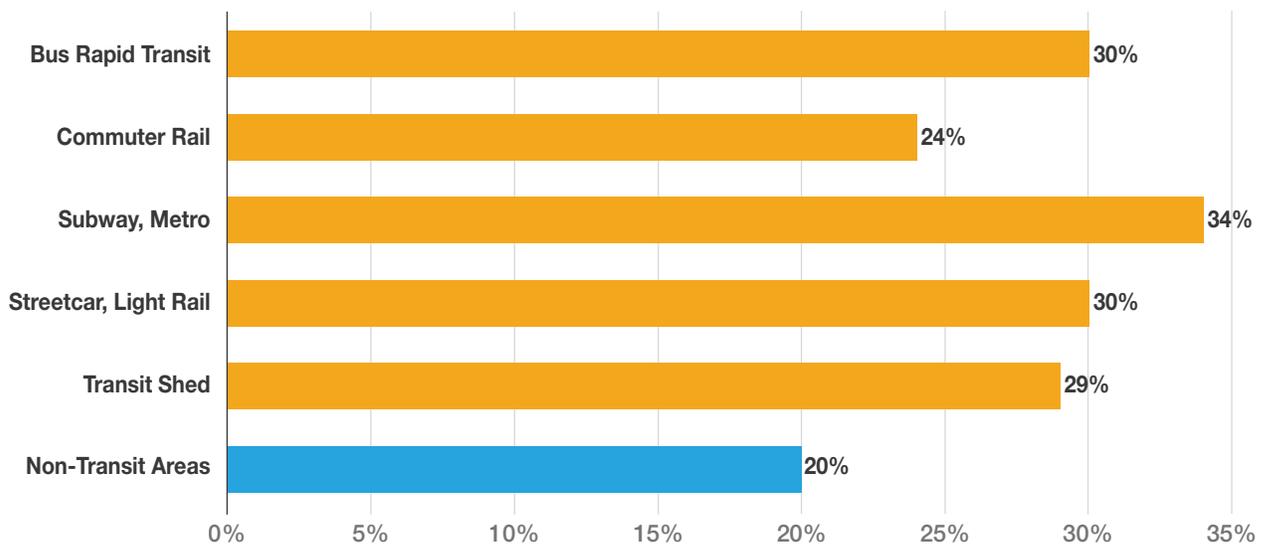
Residential Sales Performance

Between 2012 and 2016, median residential sales prices in the transit shed climbed 29 percent, 9 percentage points higher than the Boston metro region. The subway shed (Blue, Red, Orange lines) outperformed the other transit mode sheds. The commuter rail shed witnessed a lower rate of increase but was still higher than the non-transit areas of the region.

The station areas that witnessed the highest increase in residential sales prices are the Concord Train Station on the Fitchburg commuter rail line and the Terminal A

BRT stop at the Boston Logan Airport, which includes parts of the Jeffries Point neighborhood (highlighted in *Figure 6*). In both station areas, median sales prices went up by 144 percent, almost five times the average increase in the transit shed. East Boston has emerged as one of the fastest-growing neighborhoods in recent years, due to its proximity to downtown Boston and the neighboring Seaport District, and its affordability and availability of public transportation.

Figure 5: Residential Median Sales Price



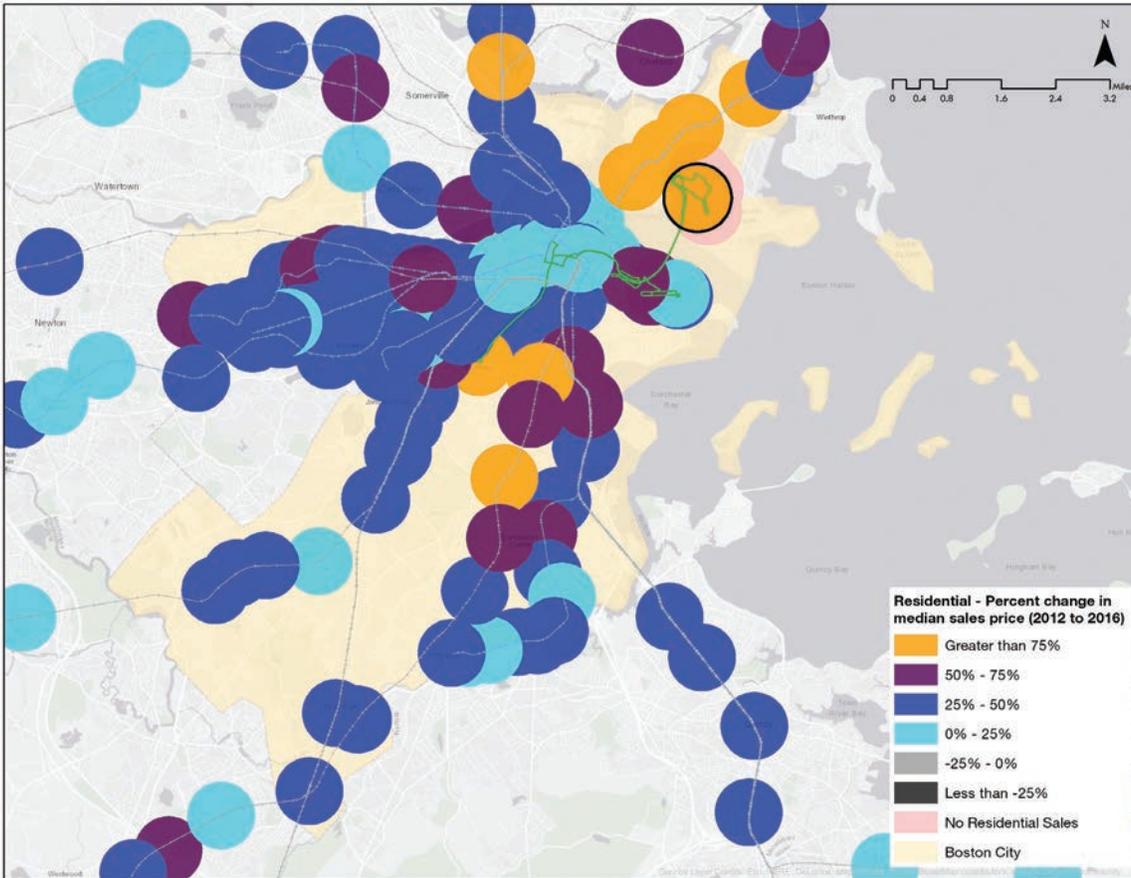


Figure 6: Median Residential Sales Price (Boston)

Commercial Sales Performance

Commercial properties performed better in the transit shed than in the region overall, 25 percent to 21 percent, respectively.

Median sales price per square foot in proximity to bus rapid transit grew significantly (84 percent) in the five years, followed by commercial properties in the rapid rail shed.

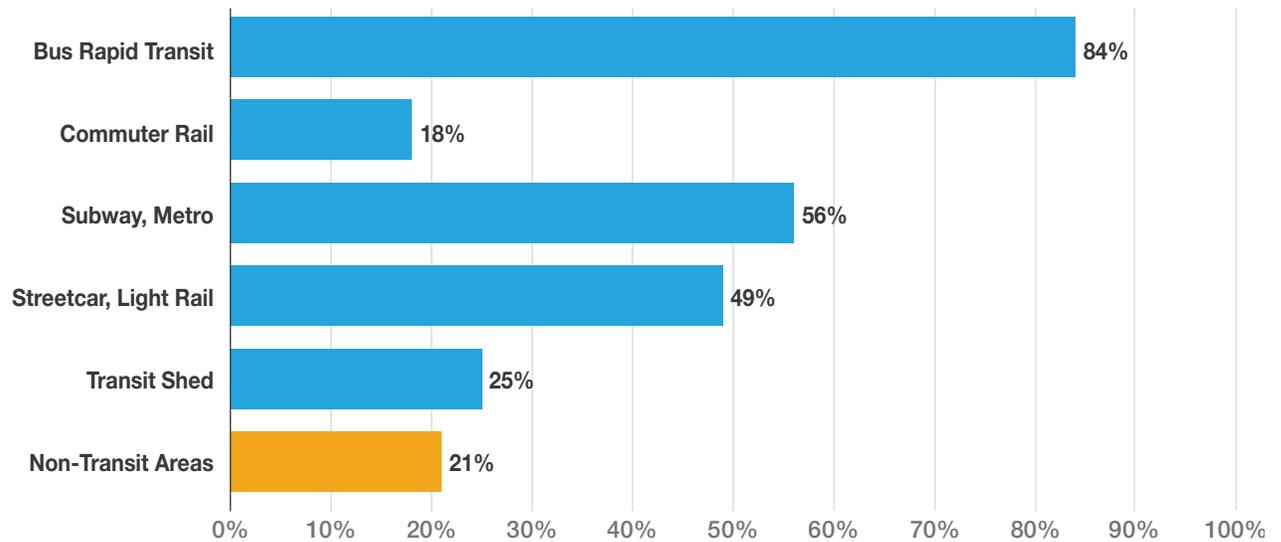
In recent years, more companies, such as Bose, Reebok and General Electric (GE), have relocated to the urban core from their suburban campuses to attract employees

who desire, among other things, the ability to commute by transit. Boston is at the forefront¹⁶ of this change. The analysis of office sales shows prices in the transit shed increased by 38 percent, a significantly higher increase when compared with office properties in the region (3 percent increase).

Sales of small-sized offices, the majority of all office sales, yielded a higher increase in price per square foot within the transit shed.

¹⁶ (Khalid, 2017)

Figure 7: Commercial Median Sales Price / Sq Ft



Medium-sized offices, likely occupied by the aforementioned companies moving to the urban core, performed 10 times better in the transit shed when compared with the region. Sales prices of retail properties across the

region grew at the same pace. The smaller increase in median price per square foot of small-sized retail properties in the transit shed could be in response to competitive rental pricing and vacancy rates in the urban core.

Commercial Type	Region Median Sales Price / Square Foot	Non-Transit Areas Median Sales Price / Square Foot	Transit Shed Median Sales Price / Square Foot
Office, Large	+19%	+134%	-43%
Office, Medium	+22%	+12%	+264%
Office, Small	+2%	-4%	+23%
Retail, Large	+65%	+62%	+57%
Retail, Medium	+28%	+17%	+28%
Retail, Small	+31%	+42%	+6%

OFFICES: LARGE (ABOVE 53,268 SQ. FT), **MEDIUM** (5,500-53,268 SQ. FT), **SMALL** (0-5,500 SQ. FT).

RETAIL: LARGE (ABOVE 22,500 SQ. FT), **MEDIUM** (5,500-22,500 SQ. FT), **SMALL** (0-5,500 SQ. FT).

BASED ON THE BUILDING CLASSIFICATIONS BY THE U.S. DEPARTMENT OF ENERGY.¹⁷

¹⁶ (Commercial Reference Buildings, Department of Energy, n.d.)

Residential Rents

Using data from the American Community Survey, gross residential rents by Census block group were compared between 2012 and 2016.

Rents in non-transit areas decreased by 1 percent. In contrast, the neighborhoods proximate to transit gained an average of 4 percent in rental prices.

In 2016, 23 percent of the region's housing units were within a half-mile of fixed-guideway transit stations. Some 8,380 new housing units were added in the already dense Boston transit shed between 2012 and 2016. Over 70 percent of the new housing units were occupied by renters, and vacancy decreased by 1.6 percent.

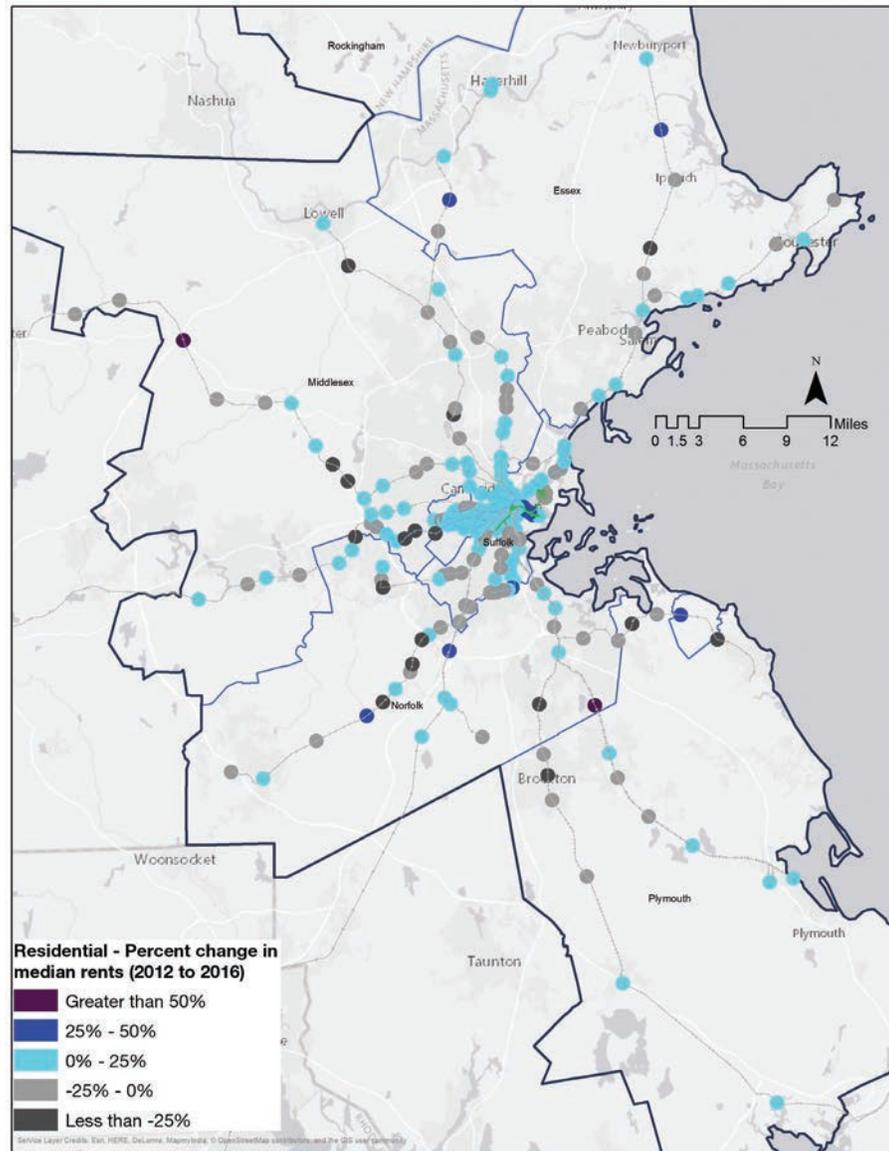


Figure 8: Residential Median Gross Rent Changes



Nighborhood Characteristics

¹⁸ Regional typical household assumes a household income that is the median income for the region, the average household size for the region and the average commuters per household for the region.

¹⁹ AllTransit™

Household transportation costs in the transit shed are significantly lower than the region—an annual savings of \$3,018, on average, for the typical household.¹⁸

Residents in the transit shed are more likely to have access to more transportation options; own fewer cars; and live in dense, walkable

neighborhoods. In the transit shed, households own 1.0 vehicles on average, compared with 1.3 in the region, and 29 percent of households do not own a car. On average, a commuter in the transit shed can access twice as many jobs by transit as the average commuter in the metro area.¹⁹

Neighborhood Characteristics	Transit Shed	Non-Transit Areas	Region
Transit Connectivity Index	21	4	8
Transit Access Shed (Square Miles)	116	40	57
Trips per Week	6,446	931	2,180
Jobs Accessible in 30-Minute Commute	535,827	123,021	216,485
Residential Density	11.0	2.3	2.6
Block Size (Acres)	5	25	20
Intersection Density	265	57	64
Employment Gravity	145,995	34,809	59,983
Annual Transportation Cost	\$9,548	\$13,450	\$12,566
Autos per Household	1.0	1.4	1.3
Percent Households with Zero Vehicles	29%	9%	13%

SOURCE: ALLTRANSIT™, HOUSING AND TRANSPORTATION (H+T®) AFFORDABILITY INDEX

Local Government Interventions and Housing Affordability

Boston metro’s booming economy, job growth and increasing population, along with a limited housing stock, are creating unaffordable housing situations for low- and moderate-income renters. Municipalities have been taking measures to address the rising property prices and tight rental market.

In a bid to preserve affordable housing, the Department of Neighborhood Development (DND) and the Neighborhood Housing Trust (NHT) Fund have provided \$15 million in funds to seven rental properties for creating and preserving 354 affordable housing units across Boston. In addition, an 18-month pilot program enables residents of some neighborhoods to create additional dwelling units (ADUs) within their properties to lower their living costs and prevent displacement.²⁰

Cambridge, Massachusetts, legalized the conversion of unused basements into studio and one-bedroom apartments in older multifamily buildings to preserve housing and create more housing units without increasing building footprints. The 2016 decision to

designate a “Basement Housing Overlay District” was projected to create 1,000 additional units.

More recently, the 15 member municipalities of the Metropolitan Mayors Coalition joined forces to create a regional housing partnership. The partnership’s goal is to increase housing supply and affordability through faster permitting processes to create a variety of homes for renters and owners in walkable areas near transit.²¹

Neighborhoods with high-frequency public transportation are in high demand. As with any local amenity, without a sufficient housing supply, prices can rise and make it difficult for people with a range of incomes to live near public transit. Many local governments are accepting the responsibility to create programs that support housing affordability and provide adequate supply.

²⁰ (Additional Dwelling Unit Pilot, City of Boston, 2017)

²¹ (Regional Housing Partnership, Metropolitan Mayors Coalition of Greater Boston)

Study Cities: Eugene

- **In the transit shed, 94,364 jobs are accessible within a 30-minute commute**
- **\$2,517 annual transportation savings from living in the transit shed**

Lane Transit District (LTD), Eugene’s transit system, serves 302,200 people over 482 square miles.²² Emerald Express (EmX), the system’s bus rapid transit line serving Eugene and Springfield, began service in 2007 and has expanded in recent years to 40 stations. In 2016, the system had an average weekday

ridership of 34,862.²³ The EmX line’s annual ridership was 2,689,562—26 percent of all bus ridership. In September 2017, LTD opened a 4.4-mile extension (EmX West).

Some 34,908 people in 14,342 households lived within a half-mile of the BRT stations in 2016, representing 10 percent of the region’s population and households. Within the transit shed, 5 percent of workers commuted via public transit, compared with 3 percent in the region. One in three workers (33 percent) living near public transportation take public transit, walk or bike in the transit shed, compared with 13 percent in the region.

²²⁻²³ (National Transit Database, 2016)

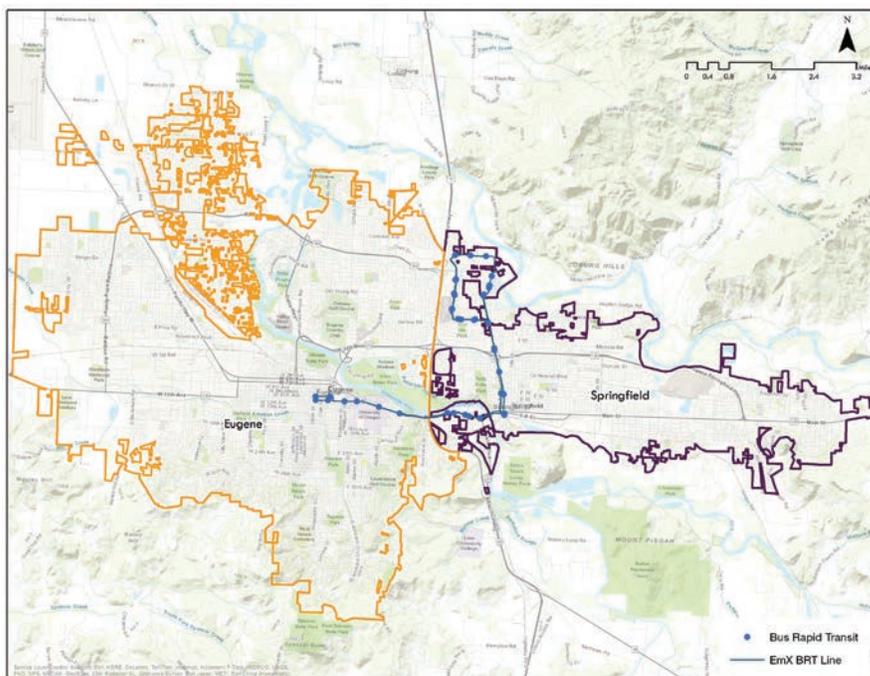


Figure 9:
Transit System Stops and Routes
(Eugene)

Residential Sales Performance

In Eugene, the median sales price of residential properties within a half-mile of the BRT line increased by 49 percent from 2012 to 2016. Prices in non-transit areas and the region also increased, but at a slower pace, 25 percent and 27 percent, respectively.

Three station areas witnessed price increases over 2,000 percent: High Street Station in Eugene, and Glenwood and Lexington stations in Springfield. In the BRT network, all but one station area saw increased prices. Agate Station in the University of Oregon corridor has very few residential properties and had a modest price decrease (-2 percent).

Figure 10: Change in Residential Median Sales Price

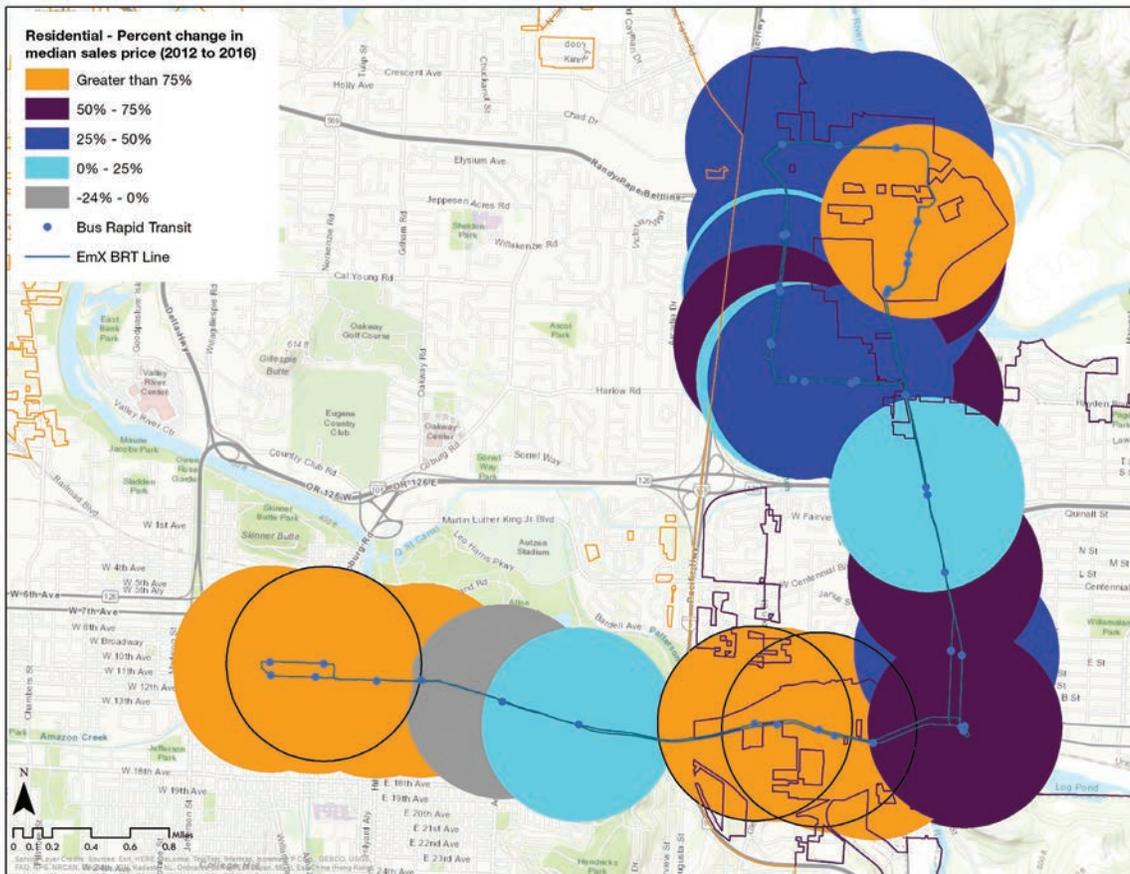
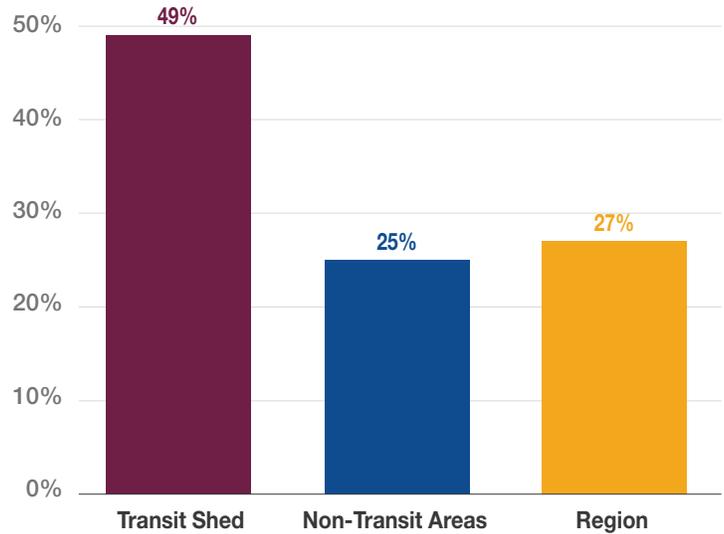
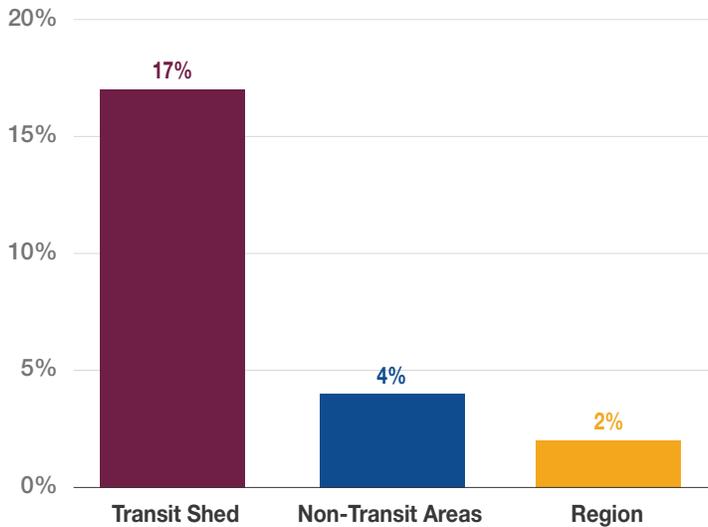


Figure 11: Change in Median Sales Prices 2012-2016

Figure 12: Change in Residential Rents



Residential Rents

The rental market in the overall Eugene metro area witnessed a moderate increase (2 percent) between 2012 and 2016. Rents in non-transit areas increased by 4 percent, and rents in the transit shed grew at a much faster rate of 17 percent. In the five-year period, 345 housing units were added to the housing stock in the transit shed.

Neighborhood Characteristics

Residential properties in the transit shed not only have access to fixed-guideway transit, but overall they also have substantially better transit connectivity and higher levels of service than the region.

Within the transit shed, on average of 3,351 rides per week are available, more than 3.5 times greater than the regional average of 945. In addition to better transit service, the

transit shed is denser and more walkable, and provides better access to jobs by transit. As a result, the typical regional household spends \$189 less per month on transportation costs in the transit shed compared with the region. Reduced transportation costs are also due to fewer cars owned—20 percent of households in the transit shed own no vehicles, compared with 9 percent in the region.

Neighborhood Characteristics	Transit Shed	Non-Transit Areas	Region
Transit Connectivity Index	7	2	3
Transit Access Shed (Square Miles)	95	48	52
Trips per Week	3,351	683	945
Jobs Accessible in 30-Minute Commute	94,364	54,025	57,981
Residential Density	8.0	0.4	0.4
Block Size (Acres)	7	61	56
Intersection Density	190	6	7
Employment Gravity	31,783	13,457	15,254
Annual Transportation Cost	\$10,181	\$12,698	\$12,451
Autos per Household	1.3	1.8	1.7
Percent Households with Zero Vehicles	20%	7%	9%



Local Government Interventions and Housing Affordability

Eugene’s population growth has contributed to a tight housing market in the region. According to RMLS, a real estate database, the number of Lane County homes for sale is at the lowest level in recent years.²⁴

The state recently passed a law mandating all cities to allow accessory dwelling units (ADUs) in their jurisdictions. While Springfield already allowed ADUs, Eugene has now adopted the state law.

Eugene’s land use codes designate certain parts of the city as Transit-Oriented Development Overlay Zones. The zones are intended to create and retain mixed land uses in transit-proximate areas. The land use code

provides guidelines to new developments on building orientation and location of parking areas to supplement efforts to create enhanced pedestrian spaces.

Neighborhoods with high-frequency public transportation are in high demand. As with any local amenity, without a sufficient housing supply, prices can rise and make it difficult for people with a range of incomes to live near public transit. Many local governments are accepting the responsibility to create programs that support housing affordability and provide adequate supply.

²⁴ (Christian Wihtol, 2018)

Study Cities: Hartford

- **In the transit shed, 180,528 jobs are accessible within a 30-minute commute**
- **\$3,271 annual transportation savings from living in the transit shed**

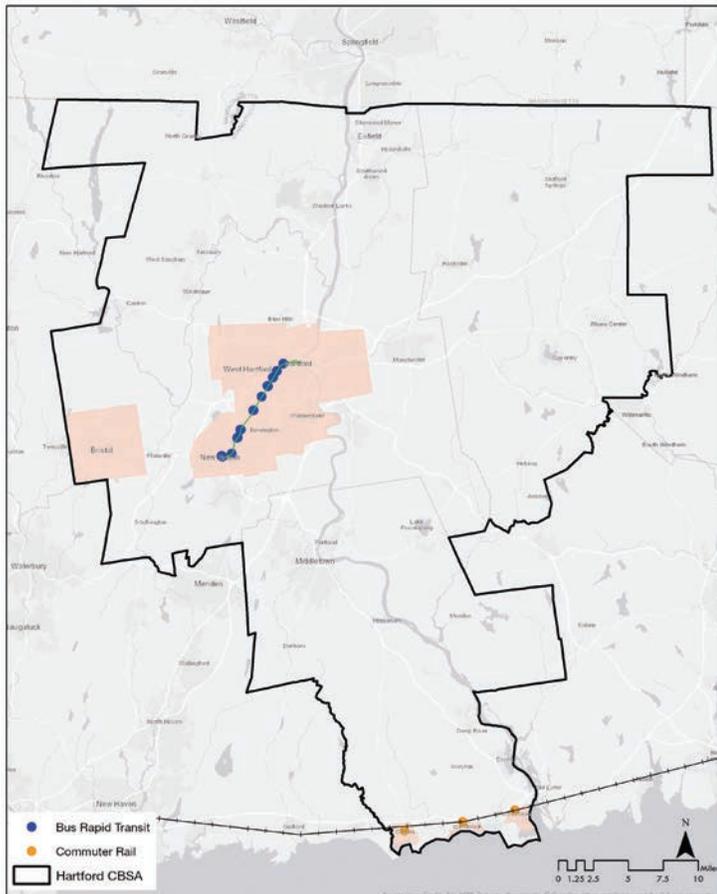


Figure 13: Transit Stops by Mode (Hartford)

The Hartford CBSA's 1.2 million residents live in three counties: Hartford, Middlesex and Tolland. Two public transit agencies provide fixed-guideway transit in the region. CTtransit-Hartford's CTfastrak system, which opened in 2015, provides bus rapid transit via 12 routes and 10 stations in Hartford County. The busway uses current and former railroad rights-of-way. On an average weekday in June 2018, 11,439 riders used the BRT lines, and the ridership in all of June was 296,971.²⁵

Shore Line East is a commuter rail line with three stops in southern Middlesex County. The line connects southern Connecticut cities between New London and New Haven, with connections to New York City through another transit provider.

In June 2018, CTrail opened its Hartford Line, a commuter rail service from New Haven to Springfield. While not included in this analysis, the service provides valuable frequent connections in central Connecticut.

Some 44,352 people in 17,951 households live within a half-mile of fixed-guideway transit, representing 4 percent of the region's population and households. Of all the workers living in the transit shed in 2016, 8 percent used transit to commute, compared with 3 percent of commuters in the region. Another 6 percent walked or biked to work in the transit shed.

²⁵ (Connecticut Department of Transportation)

Residential Sales Performance

Sales of residential properties in the Hartford region reflect current economic conditions and grew modestly. Median sales prices in the transit shed performed better than the non-transit areas between 2012 and 2016, a 13 percent increase as compared with 3 percent.

Among station areas, the largest increase in median sales value was at the Flatbush

Avenue Station area, south of I-84. Prices increased by 81 percent in this station area located 4 miles south of downtown Hartford. The Sigourney Street Station area, at the border of the Asylum Hill and Frog Hollow neighborhoods, witnessed the weakest sales performance. Median sales prices decreased by 40 percent in this station area.

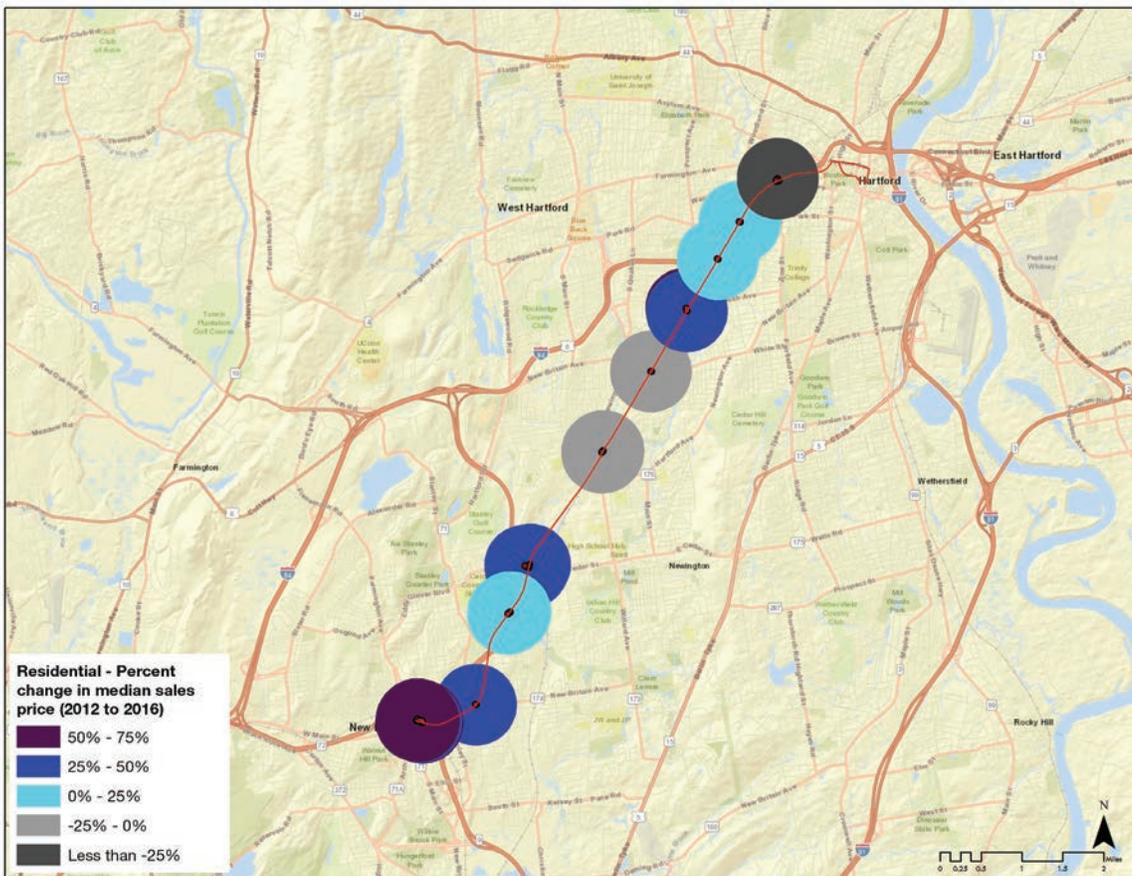


Figure 14: Residential Sales by Station Area

Commercial Sales Performance

The median sales price per square foot of commercial properties in the Hartford region increased marginally (2 percent) between 2012 and 2016. The transit shed outperformed the region and the non-transit areas, with a price increase of 16 percent.

The station area where price per square foot increased more than twofold is the Sigourney Street Station. Median price per square foot there increased by 284 percent between 2012 and 2016. The station area includes the headquarters of Aetna, a top employer in Hartford, and is adjacent to the downtown.

Examining commercial sales by subtypes, office and retail sales presents a finer understanding of the sales performance. The only commercial sales activity in the transit shed was among small-sized office and retail properties, and both saw a decrease in prices. The lower performance of small-size properties may be attributed to the difficulties small businesses are facing with changing market trends such as e-commerce and automation.

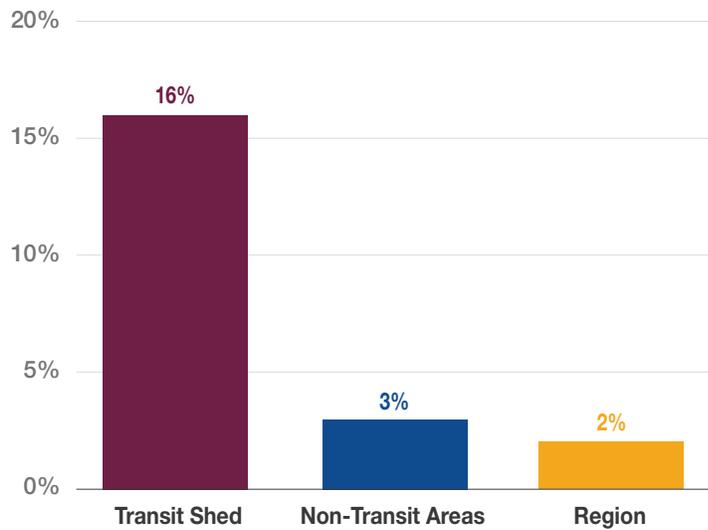


Figure 15: Change in Commercial Median Sales Price / Sq Ft

Residential Rents

The median gross rent in Hartford was stagnant between 2012 and 2016. Rents decreased in the transit shed and non-transit areas, but rent decreases were lower within a half-mile of fixed-gateway transit.

Renter-occupied households outnumbered owner-occupied households in the transit shed, and the percentage of renters increased from 2012 to 2016.



Figure 16: Residential Median Gross Changes (Hartford)



Photo: Doug Kerr (Flickr Creative Commons)

Neighborhood Characteristics

In addition to having more stable average residential and commercial sales prices, the fixed-guideway transit shed also has lower household transportation costs. Because of higher residential density, increased walkability and access to jobs via transit, the typical household in the transit shed spends \$262 less per month on transportation when

compared with the average household in the region. Car ownership constitutes a large share of transportation costs for a household, and these costs are greatly reduced due to fewer automobiles owned per household, on average, in the transit shed (1.0 compared with 1.4 in the region).

Neighborhood Characteristics	Transit Shed	Non-Transit Areas	Region
Transit Connectivity Index	7	2	2
Transit Access Shed (Square Miles)	124	49	52
Trips per Week	3,828	610	733
Jobs Accessible in 30-Minute Commute	180,528	67,655	71,994
Residential Density	6.4	1.1	1.1
Block Size (Acres)	11	39	38
Intersection Density	146	36	37
Employment Gravity	56,818	22,539	23,857
Annual Transportation Cost	\$10,292	\$13,563	\$13,437
Autos per Household	1.0	1.4	1.4
Percent Households with Zero Vehicles	29%	9%	9%

Local Government Interventions and Housing Affordability

The Hartford region, which has historically been the center of the insurance industry, was greatly affected by the economic downturn and has been in recovery in the past few years. Unemployment rates peaked at 7.8 percent²⁶ in 2013 but had decreased to 4.5 percent²⁷ in 2018. Hartford has been taking steps to revitalize the region and attract new residents in the wake of Aetna announcing the relocation of its headquarters.

Hartford is one of 35 cities chosen as part of the 2018 Champion Cities: Mayors Challenge by Bloomberg Philanthropies. The city has been testing ways to creatively tackle crime and make the region more livable. In June 2018, the Hartford Commuter Line began service between New Haven, Connecticut, and Springfield, Massachusetts, making eight stops along the 62-mile corridor and providing connections to other rail systems. The 40-minute service between Hartford and New Haven runs every 30 minutes during weekday peak hours.

The construction of several mixed-use developments along the fixed guideway indicates developer interest in public transit. In New Britain, a 160-residential unit with ground-level retail and office use broke ground in October 2017.²⁸ Conversions of several Class B offices in downtown Hartford to residential use have doubled the downtown population in recent years. Hartford has also recently eliminated parking minimums in the downtown area to incentivize more construction.

Neighborhoods with high-frequency public transportation are in high demand. As with any local amenity, without a sufficient housing supply, prices can rise and make it difficult for people with a range of incomes to live near public transit. Many local governments are accepting the responsibility to create programs that support housing affordability and provide adequate supply.

²⁶ (Bureau of Labor Statistics, 2013)

²⁷ (Bureau of Labor Statistics, 2018)

²⁸ (Hartford Business, 2017)

Study Cities: Los Angeles

- **In the transit shed, 565,467 jobs are accessible within a 30-minute commute**
- **\$2,903 annual transportation savings from living in the transit shed**

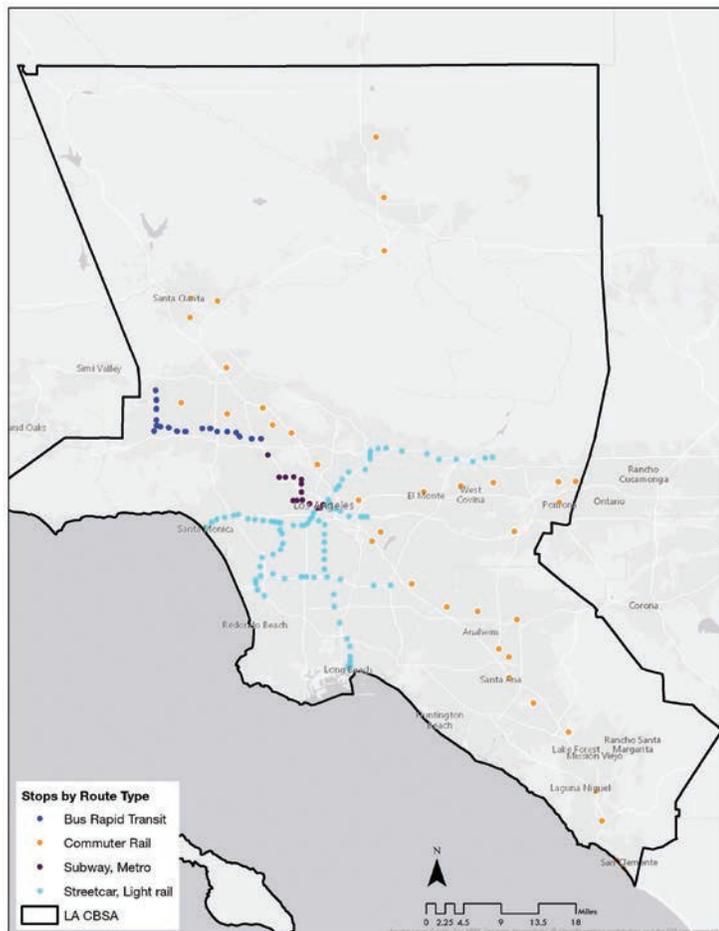


Figure 17: Transit System Map (Los Angeles)

The Los Angeles metro area consists of Los Angeles and Orange counties and is served by two fixed-guideway transit providers: Metrolink and LA Metro. Metrolink provides commuter rail service via seven routes and 38 stations between Los Angeles and the surrounding suburbs. LA Metro provides rapid rail²⁹ and bus rapid transit. There are eight rapid rail lines (including the yet-to-open Crenshaw Line) with 105 stations and one BRT line with 17 stations. The average weekday ridership on the commuter lines in 2017 was 39,131,³⁰ with the Orange County Line and San Bernardino Line being the most used. On an average weekday in 2017, 359,016³¹ passengers used the rapid rail system, accounting for 25 percent of the system ridership. An additional 2 percent of the system ridership is attributed to the Orange Line BRT.

In 2016, 1,203,407 people in 422,778 households lived within a half-mile of fixed-guideway stations, representing 9 percent of the region's population and households. Within the transit shed, 14 percent of workers commuted via transit, compared with 6 percent in the region. Over 21 percent of workers in the transit shed used transit, walked or biked; in the region the figure was 10 percent.

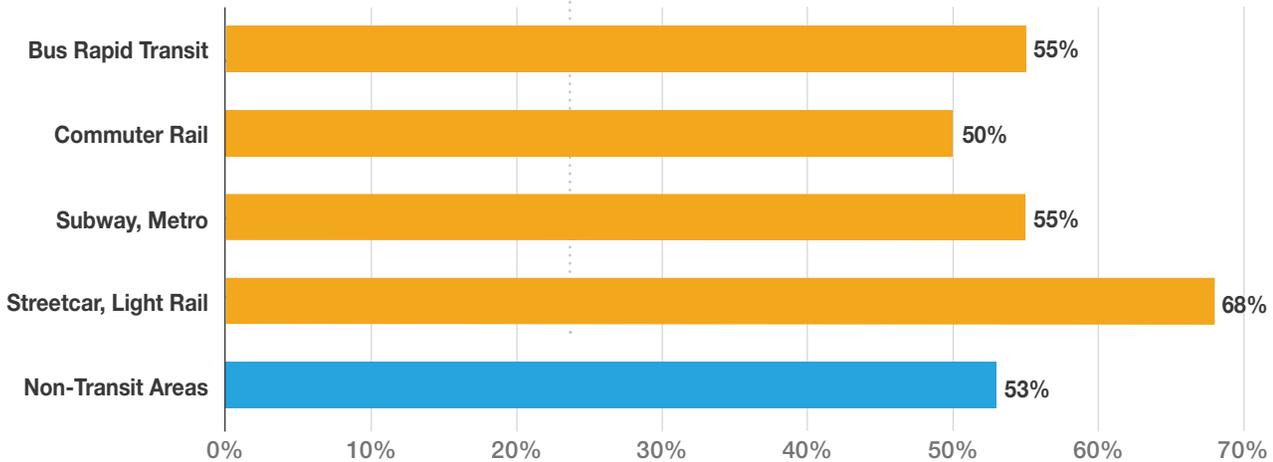
²⁹ For discussion, subway/metro and light rail/streetcars are combined into the rapid rail category.

³⁰ (Metrolink, 2018)

³¹ (Metro LA Ridership Statistics)

Residential Sales Performance

Figure 18: Residential Median Sales Price



Between 2012 and 2016, prices in the transit shed increased by 61 percent, 8 percentage points more than in non-transit areas. The light rail transit shed had the highest performance, followed by the BRT and subway sheds. Prices in the commuter rail shed increased at a lower level than in the non-transit areas; in all other transit mode sheds, prices increased at a greater pace.

Within the individual transit station areas, the highest percentage change in median sales price was at the LATTC/Ortho Institute Station. Prices increased by 329 percent around the Expo Rapid Rail Line station, three miles southwest of downtown. Nordhoff Station is the BRT station area with the highest price increase, at 207 percent. Among transit routes, residential sales performance was the highest in station areas along the Expo Line.

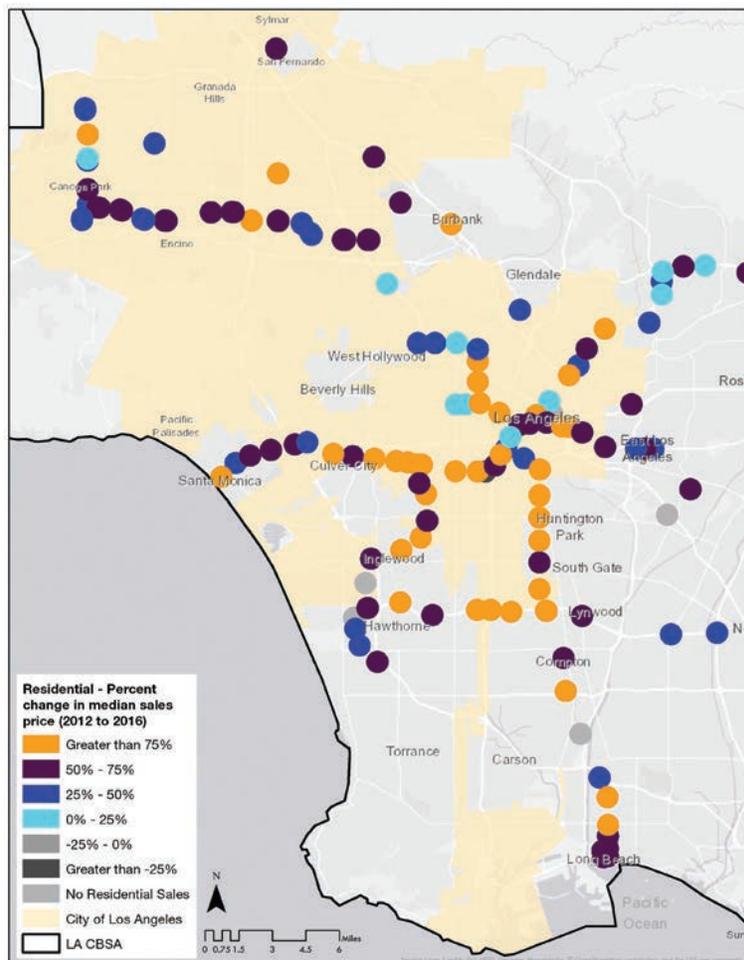


Figure 19: Change in Median Sales Price (Station Area)

Commercial Sales Performance

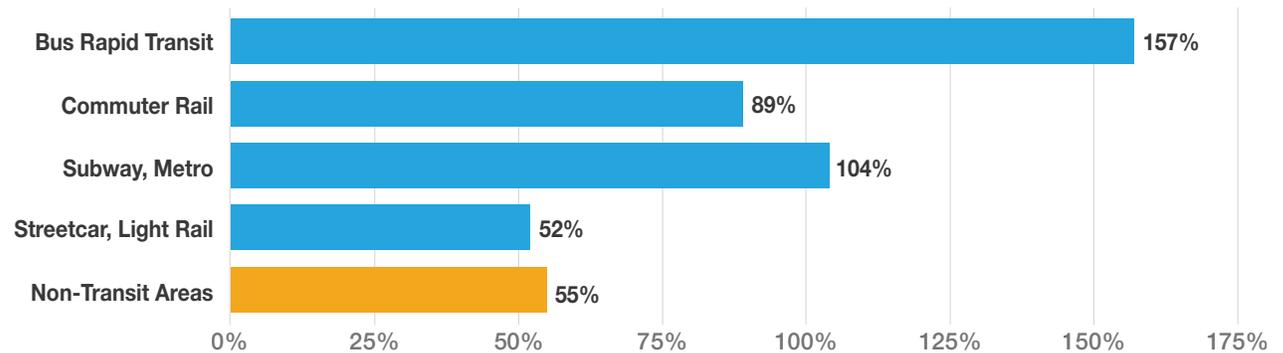
Commercial properties in the transit shed performed better than other commercial properties in the region, with a 73 percent increase in the transit shed versus 58 percent in the region. Median sales price per square foot in proximity to bus rapid transit grew significantly (157 percent) between 2012 and 2016, followed by commercial properties in the rapid rail shed.

Median price per square foot increased the most in the Southwest Museum Station area on the Metro Gold line (1,930 percent). Among BRT stations, price per square foot

increased by 1,287 percent in the Laurel Canyon Station area.

Prices of office and retail properties within the transit shed performed above the region and non-transit areas. Parsing out sales by building size, sales of large and small office properties in the transit shed yielded a higher price per square foot when compared with non-transit areas and the region. Medium and small retail properties outperformed the non-transit areas. The smaller inventory of large retail properties could likely explain the decrease in prices within the transit shed.

Figure 20: Commercial Median Sales Price / Sq Ft



Commercial Type	Region Median Sales Price / Square Foot	Non-Transit Areas Median Sales Price / Square Foot	Transit Shed Median Sales Price / Square Foot
Office, Large	+98%	+18%	+363%
Office, Medium	+43%	+56%	+32%
Office, Small	+39%	+25%	+74%
Retail, Large	+1%	+6%	-14%
Retail, Medium	+43%	+39%	+76%
Retail, Small	+49%	+46%	+70%

OFFICES: LARGE (ABOVE 53,268 SQ. FT), **MEDIUM** (5,500–53,268 SQ. FT), **SMALL** (0–5,500 SQ. FT).

RETAIL: LARGE (ABOVE 22,500 SQ. FT), **MEDIUM** (5,500–22,500 SQ. FT), **SMALL** (0–5,500 SQ. FT).

BASED ON THE BUILDING CLASSIFICATIONS BY THE U.S. DEPARTMENT OF ENERGY.³²

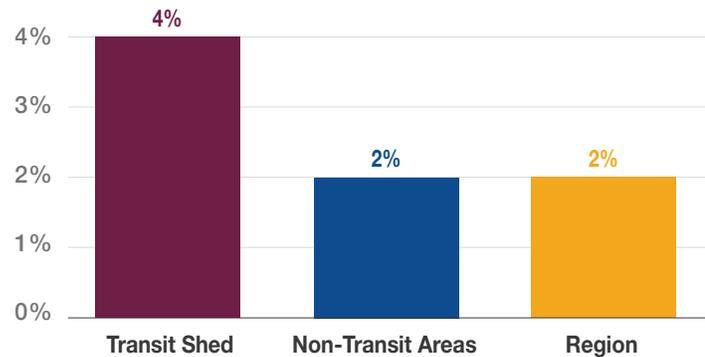
¹⁶ (Commercial Reference Buildings, Department of Energy, n.d.)

Residential Rents

Los Angeles region median gross rents in 2016 grew slightly—a 2 percent increase in the region when compared with 2012. Rents in non-transit areas also increased by 2 percent, and rents in the transit shed grew at twice that rate, by 4 percent.

Between 2012 and 2016, there were 17,371 new housing units and a 7.5 percent increase in renter-occupied households within the transit shed. Vacant units decreased by 11 percent, signaling an increase in occupied housing stock.

Figure 21: Change in Residential Rents



Neighborhood Characteristics

Transit-accessible neighborhoods in the Los Angeles metro are more location-efficient than the region. Residents of these neighborhoods have access to twice as many jobs and live in denser and more walkable areas. As a likely result of access to more transportation options, households³³

in the transit shed save \$242 per month, on average, on transportation costs. Households living near transit also own fewer cars on average—1.2 versus 1.7 in the region, and 18 percent of households in the transit shed do not own a vehicle.

³³ Regional typical household assumes a household income that is the median income for the region, the average household size for the region and the average commuters per household for the region.

Neighborhood Characteristics	Transit Shed	Non-Transit Areas	Region
Transit Connectivity Index	18	6	7
Transit Access Shed (Square Miles)	176	104	111
Trips per Week	7,803	1,799	2,393
Jobs Accessible in 30-Minute Commute	565,457	257,221	287,723
Residential Density	12.7	3.3	3.5
Block Size (Acres)	7	12	11
Intersection Density	246	76	80
Employment Gravity	126,426	70,520	76,052
Annual Transportation Cost	\$10,839	\$13,742	\$13,455
Autos per Household	1.2	1.7	1.7
Percent Households with Zero Vehicles	18%	7%	8%

SOURCE:
ALLTRANSIT™,
HOUSING AND
TRANSPORTATION
(H+T®) AFFORDABILITY
INDEX

Local Government Interventions and Housing Affordability

Los Angeles, like several large cities, is affected by increasing unaffordability for certain low- and moderate-income households. LA Metro, the public transit provider, earmarked \$9 million to encourage affordable housing in station areas. The public-private partnership program, Metro Affordable Transit Connected Housing Match Program, provides loans to developers for acquisition and pre-development financing of rental housing in the half-mile radius around high-frequency transit nodes to preserve affordable housing and to boost ridership.³⁴ The program operates with a \$75 million match from California Endowment and local Community Development Financial Institutions, and can potentially create or preserve 1,500 units.

Zoning plays a critical role in the success of transit-oriented developments. In 2017, the LA City Planning Commission created the Transit-Oriented Communities Affordable

Housing Incentive Program, which was the core element of Measure JJJ. The program allows additional density and lower parking requirements within a half-mile of major transit stops if developments include affordable units. The guidelines also require new developments to replace affordable housing units that existed at the same spot.

Neighborhoods with high-frequency public transportation are in high demand. As with any local amenity, without a sufficient housing supply prices can rise and make it difficult for people with a range of incomes to live near transit. Many local governments are taking responsibility to create programs that support housing affordability and provide adequate supply.

³⁴ (MATCH LA Fund)

Study Cities: Minneapolis-St. Paul

- In the transit shed, 458,791 jobs are accessible within a 30-minute commute
- \$3,366 annual transportation savings from living in the transit shed

This study region encompasses Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties and is smaller than the Minneapolis–St. Paul–Bloomington MN-WI CBSA due to data availability. The primary public transit provider for the seven-county region is Metro Transit, which provides commuter rail service (Northstar) and light rail service (Blue and Green lines). The Northstar commuter line began operations in 2009 and serves five stations in the study area. The Blue Line is a north-south line between downtown Minneapolis and the Mall of America, and the Green Line, which opened in 2014, runs between downtown St. Paul and downtown Minneapolis. Together the two lines serve 41 stations.

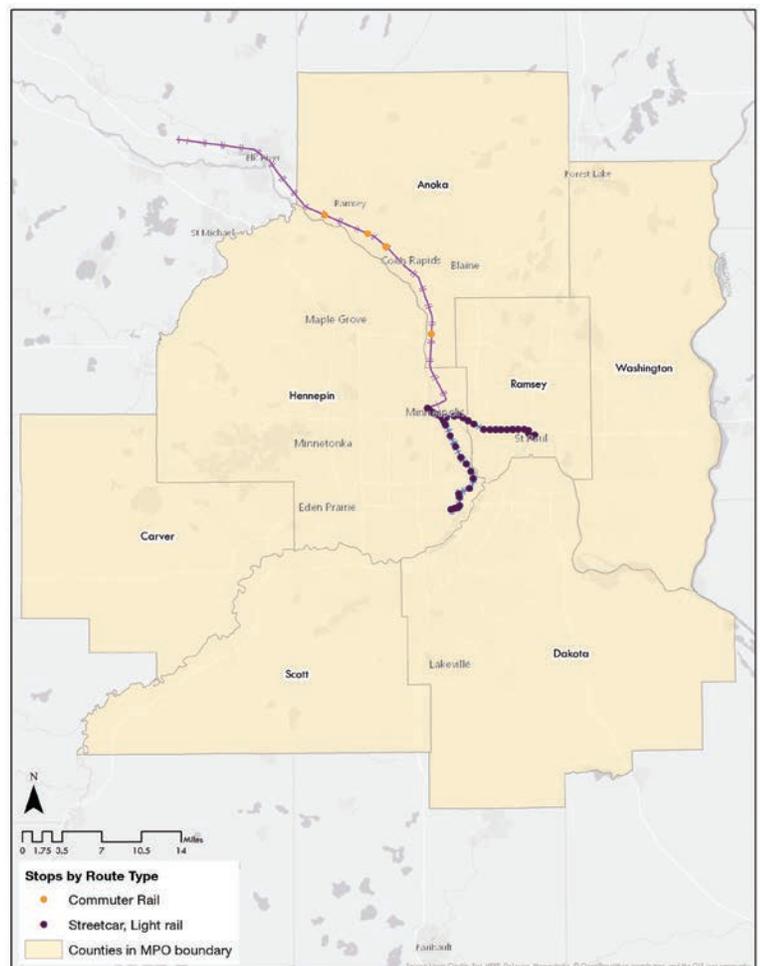


Figure 22: Map of Fixed-Guideway Routes and Stops (Minneapolis-St. Paul)

Ridership on all three fixed-guideway lines increased between 3.5 and 12 percent between 2016 and 2017. In 2017, 793,796³⁵ riders used the Northstar commuter line, with an average weekday ridership of 2,819, a 12 percent increase over the previous year. Annual ridership on the Blue Line was 10,668,832 and on the Green Lines was 13,142,163. Between 30,000 and 40,000 passengers access the two lines on an average weekday. Some 31 percent of the total trips in the entire transit system are made on these three lines.

In 2016, 120,649 people in 48,542 households resided within a half-mile of fixed-guideway transit, representing 4 percent of the region's total population and households. In the transit shed, 15 percent of workers commuted by public transportation, as compared with 6 percent for the region. An additional 18 percent walked or biked to work in the transit shed, compared with 3 percent in the region.

³⁵ (Metro Transit, 2018)

Residential Sales Performance

Residential property sales in the transit shed performed better than non-transit areas and the seven-county region as a whole. Median sales prices increased by 24 percent in transit-proximate areas, 4 percentage points over properties farther from transit. The transit shed accounts for only 1 percent of land area in the large region consisting of seven counties, including affluent suburbs such as Edina and Orono with high property values.

The station areas with the largest increases in median sales price are on the Green Line, in the city of St. Paul. Four station areas along University Avenue between Rice and Victoria

streets had median price increases between 77 and 110 percent. The station areas contain mostly residential uses, with commercial along the main arterial, apart from the Capitol/Rice Street Station, which includes the Minnesota State Capitol premises. The four station areas were part of the larger Central Corridor Plan formulated in 2006 to provide guidelines for development along the future LRT line. The plan estimated that between 700 and 1,000³⁶ new rental housing units were needed in the corridor to serve the ethnically diverse, low-income residents.

³⁶ (City of St Paul, 2006)

Figure 23: Change in Residential Median Sales Price

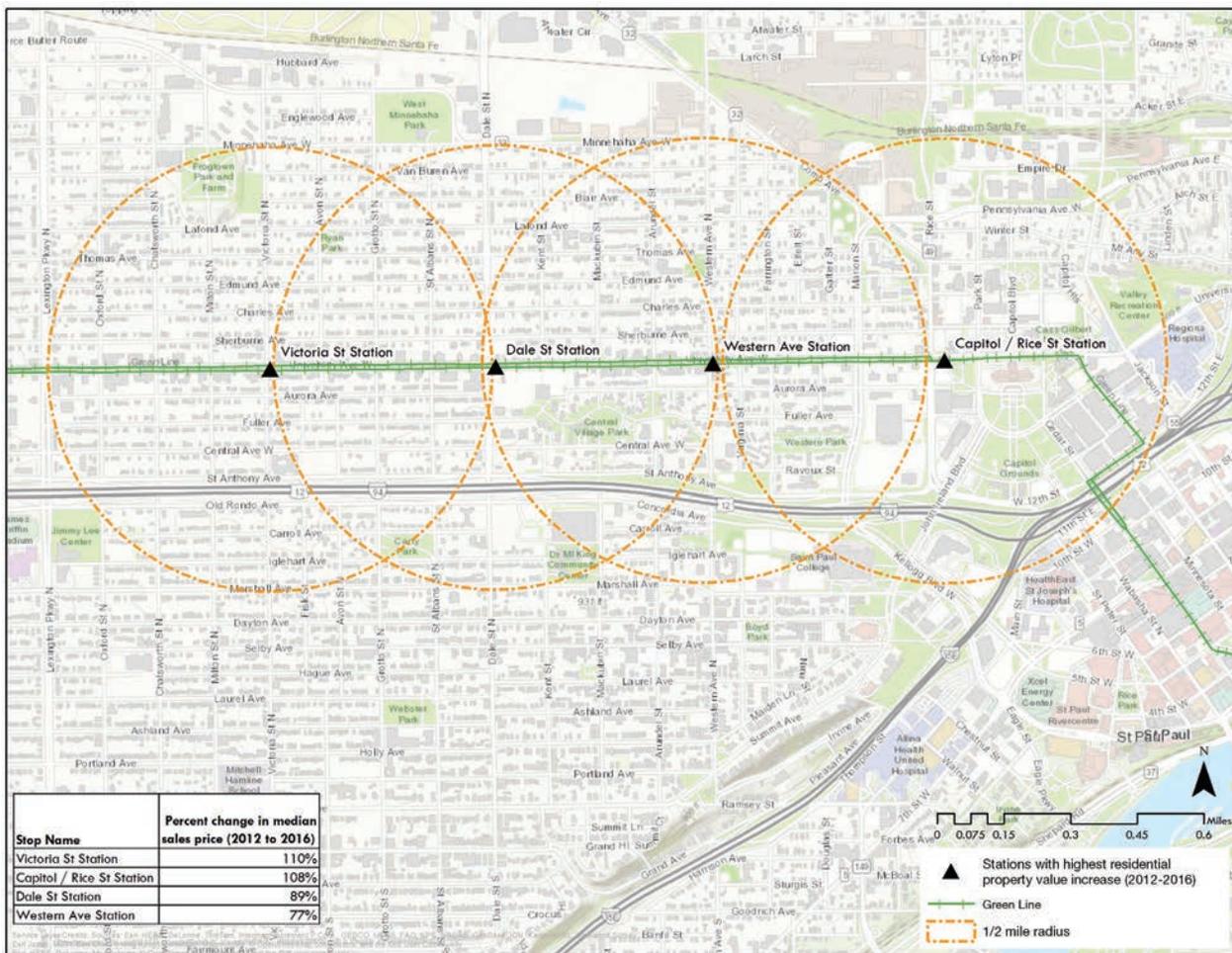
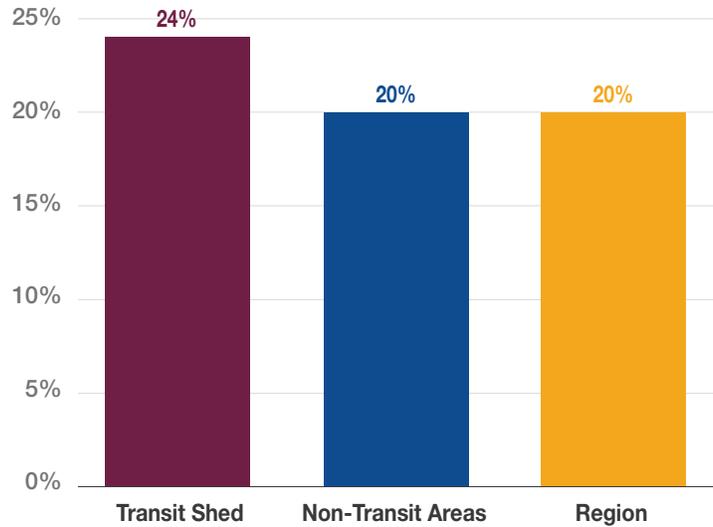


Figure 24: Stations with Highest Median Sales Price Increase 2012-2016

Residential Rents

Gross median rents in the seven-county region increased by 4 percent between 2012 and 2016. Gross median rents in the seven-county region increased by 4 percent between 2012 and 2016. Rents in transit-proximate areas increased over eight times more than non-transit areas—8 percent versus 1 percent. Renters constitute 63 percent of households in the transit shed; between 2012 and 2016,

an additional 1,564 new renter-occupied units were added. In those five years, 1,760 new housing units and 1,994 new households were added to the transit shed, and most of these units absorbed the new renter households moving into transit-proximate areas. The number of vacant housing units also decreased by 5 percent.

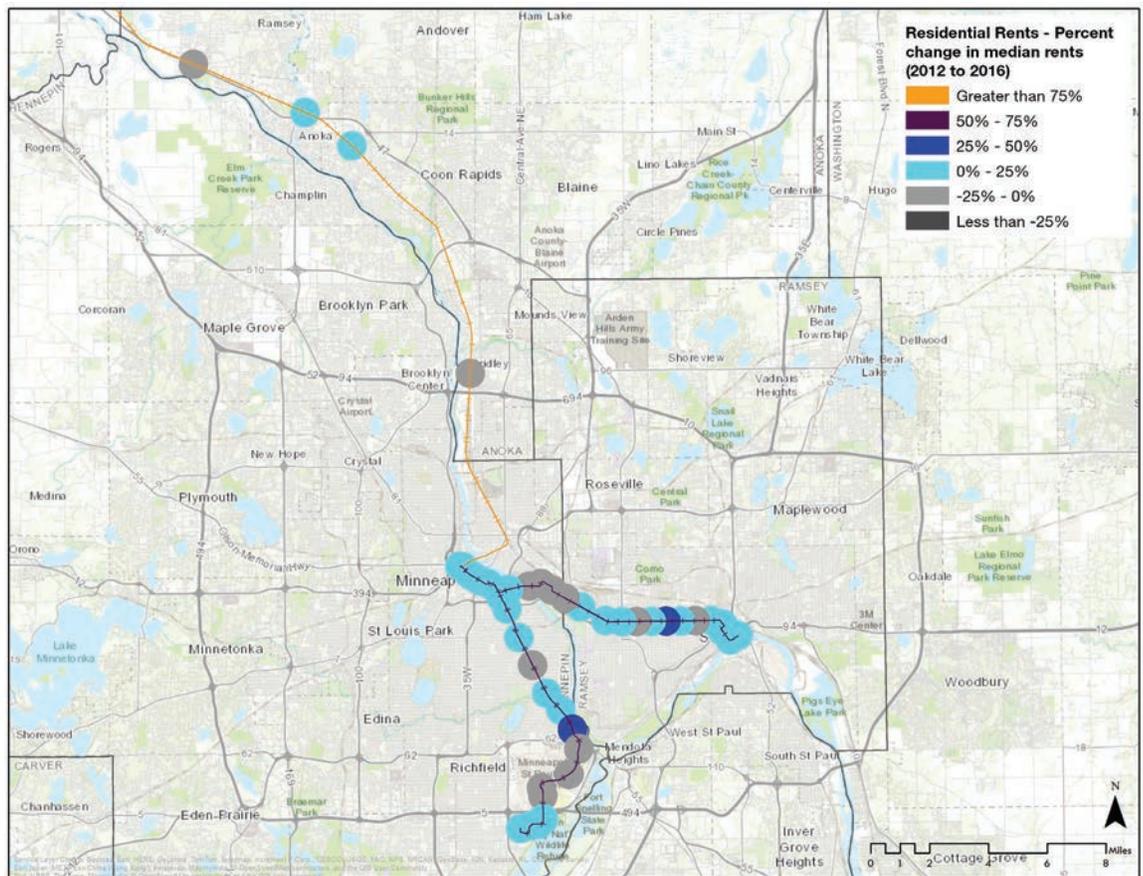


Figure 25: Residential Median Gross Rent Changes



Neighborhood Characteristics

In addition to access to fixed-guideway transit, properties in the transit shed have significantly better transit connectivity and higher levels of service than the region.

On average, 10,985 public transit trips are available within the transit shed—6.5 times more trips compared with the average household in the region. In addition to better public transit service, the transit shed is

denser, more walkable and provides better access to jobs. As a result, the typical regional household spends \$269 less per month on transportation costs in the transit shed when compared with the region. These reduced transportation costs are at least partly due to fewer cars owned—25 percent of households in the transit shed own no vehicles, compared with 8 percent in the region.

Neighborhood Characteristics	Transit Shed	Non-Transit Areas	Region
Transit Connectivity Index	22	4	5
Transit Access Shed (Square Miles)	204	62	68
Trips per Week	10,985	1,304	1,712
Jobs Accessible in 30-Minute Commute	458,791	144,398	157,667
Residential Density	12.9	1.6	1.7
Block Size (Acres)	6	24	23
Intersection Density	183	50	51
Employment Gravity	118,292	36,899	40,334
Annual Transportation Cost	\$9,894	\$13,260	\$13,118
Autos per Household	1.1	1.5	1.5
Percent Households with Zero Vehicles	25%	7%	8%

SOURCE: ALLTRANSIT™, HOUSING AND TRANSPORTATION (H+T®) AFFORDABILITY INDEX

Local Government Interventions and Housing Affordability

The 2040 Housing Policy Plan of the Metropolitan Council, the regional metropolitan planning organization, identifies the need for more affordable housing in the region and allocates a share of the region's need to each municipality within its planning area. The Metropolitan Council scores municipalities annually on their efforts to create more affordable housing for low- and moderate-income households.

The City of Minneapolis has been leading the adoption of innovative strategies to reduce barriers to creating affordable housing. In 2015, the city passed an ordinance allowing accessory dwelling units (ADUs) on single- and two-family lots in all neighborhoods. In the four years since ADUs were allowed, 92 permits have been issued in the city.

Minneapolis also reduced parking requirements for residential properties near high-frequency public transit. Properties with 50 units or fewer, within a quarter-mile of public transit, are no longer required to provide off-street parking. Buildings with more than 50 units

require just 0.5 parking spaces per unit, thereby decreasing the construction costs that eventually get passed on to households. Since the requirements decreased in 2015, there has been an uptick in the number of apartment buildings near public transit outside the downtown area.³⁷

ADUs are allowed in St. Paul within a half-mile of the Green Line LRT, creating a one-mile corridor on St. Paul's western end. The ADUs were devised as a strategy to increase density in transit-adjacent neighborhoods and to increase ridership on the Green Line.

Neighborhoods with high-frequency public transportation are in high demand. As with any local amenity, without a sufficient housing supply prices can rise and make it difficult for people with a range of incomes to live near transit. Many local governments have taken responsibility to create programs that support housing affordability and provide adequate supply.

³⁷ (Nick Magrino, 2018)

Study Cities: Phoenix

- **In the transit shed, 294,313 jobs are accessible within a 30-minute commute**
- **\$3,227 annual transportation savings from living in the transit shed**

The Phoenix CBSA has a population of 4,407,915 people (Pinal and Maricopa counties). Valley Metro is the region's transit agency and provides bus, light rail, paratransit and rideshare services. The light rail line, Valley Metro Rail, opened in 2008 with 35 stations serving Phoenix, Mesa and Tempe. On an average weekday in June 2018,

41,281³⁸ rides were taken on the light rail line—22 percent of the daily boardings across all routes.

In 2016, 109,597 people and 45,561 households lived within a half-mile of the light rail stations, representing 2 percent and 3 percent, respectively, of the region's population and households. Within the transit shed, 9 percent of workers commuted via transit, compared with 2 percent in the region. The percentage of workers taking transit, walking or biking was 21 percent in the transit shed and 5 percent in the region.

³⁸ (Valley Metro: Ridership Report, 2018)

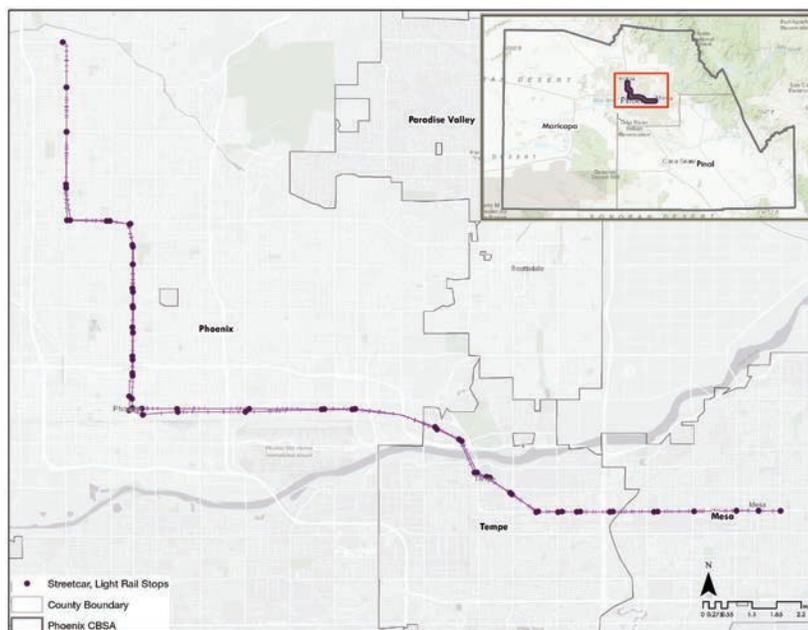


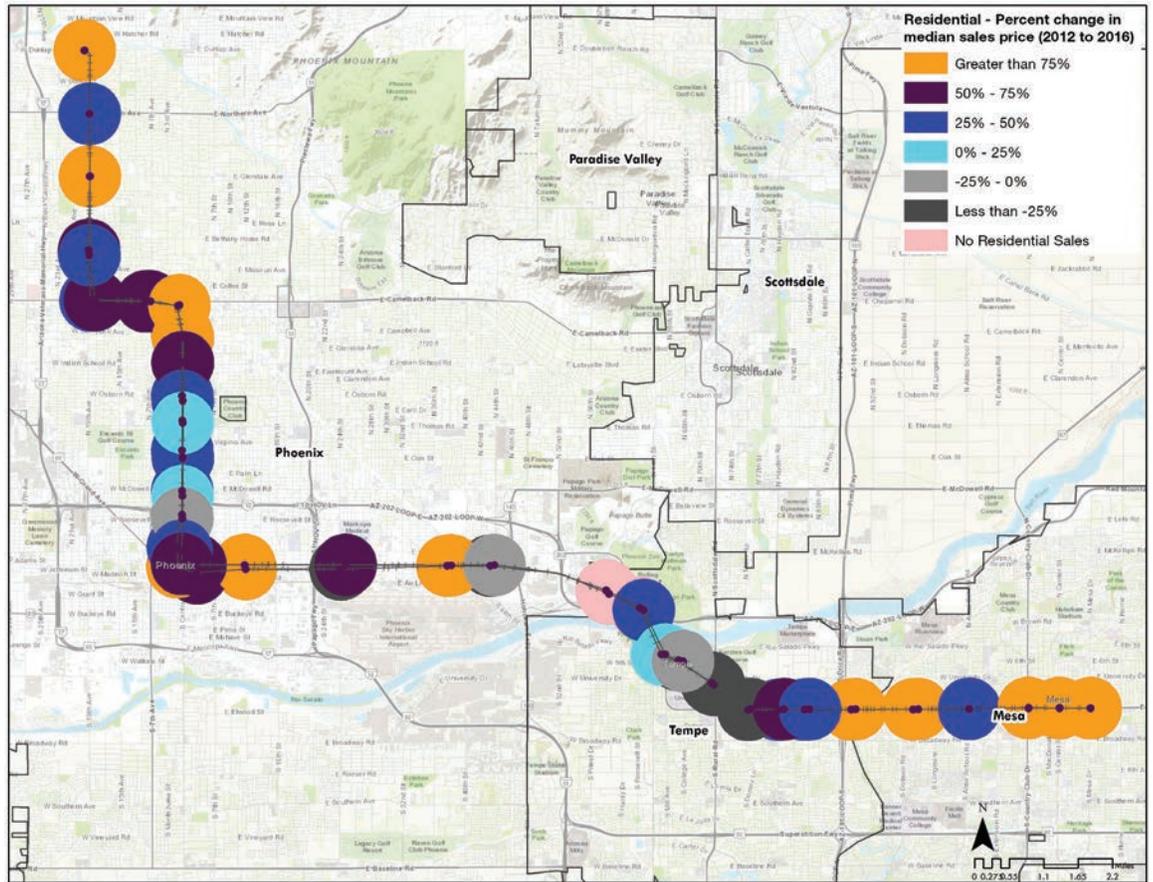
Figure 26: Station Map, Valley Metro (Phoenix)

Residential Sales Performance

The median sales price of residential properties in the transit shed grew between 2012 and 2016. Prices increased by 56 percent, compared with a 40 percent increase in the non-transit areas. Among station areas, 38th Street/Washington Station in Phoenix

witnessed the highest increase in median sales price (201 percent), followed by Sycamore/Main Street Station in Mesa (132 percent). In Tempe, the Price 101 Freeway/Apache Station area had the greatest increase in residential sales prices (99 percent).

Figure 27:
Percent Change of Residential Median Sales Price by Station Area



Commercial Sales Performance

The transit shed makes up less than 1 percent of the land area of the region, and 8 percent of the region's commercial sales between 2012 and 2016 took place within the transit shed. The median price per square foot of commercial properties within a half-mile of the LRT station decreased between 2012 and

2016, in contrast to prices per square foot in non-transit areas.

An examination of the commercial sales by office and retail type can provide some understanding of the negative price performance. The following table indicates

that office properties in the transit shed fared better than retail sales in the region. Retail property sales, conversely, underperformed. The landscape of the retail sector has been changing rapidly in recent years. Experts suggest that there is more retail space than needed in the county,³⁹ leading to empty storefronts in enclosed malls and strip malls. This trend began before the rise of e-commerce and has accelerated with increased online shopping.

In Phoenix, the retail vacancy rate in 2018 had decreased to pre-recession rates,⁴⁰ owing to the region’s population and employment growth. Performance of retail sales may not increase despite lower vacancy rates, as landlords are responding to the competitive market by finding new uses for empty storefronts.

³⁹ (Forbes, 2017)

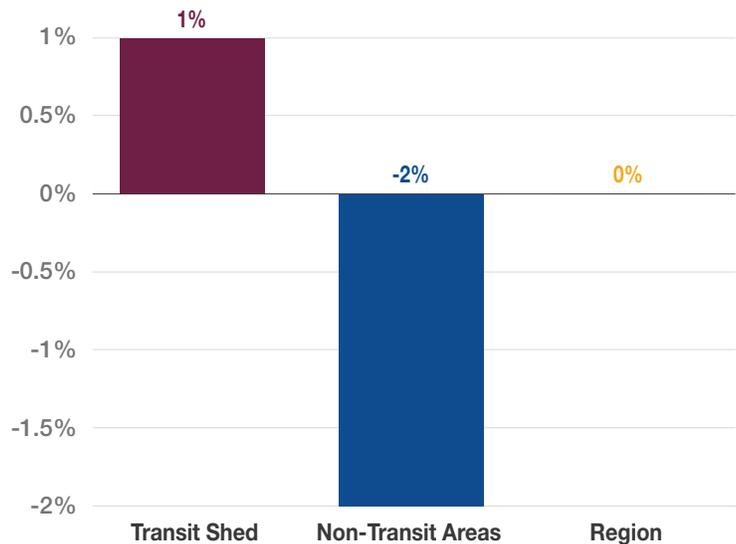
⁴⁰ (Phoenix Business Journal, 2018)

Residential Rents

Gross median rents in the Phoenix metro area did not change between 2012 and 2016. Rents in the transit shed increased by 3 percentage points over non-public transit areas—a modest 1 percent increase. In the five-year period, 1,139 new housing units were built in the transit shed and 1,562 previously vacant units are now occupied. Three of every four households in the transit shed are renters, compared with 38 percent renter-occupied households in the non-transit areas.

	Office Median Sales Price / Square Foot	Retail Median Sales Price / Square Foot
Transit Shed	+54%	-43%
Non-Transit Areas	+49%	+55%
Region	+50%	+34%

Figure 28: Change in Residential Rents





Neighborhood Characteristics

⁴¹ Regional typical household assumes a household income that is the median income for the region, the average household size for the region and the average commuters per household for the region.

In addition to more stable residential prices, the transit shed has lower transportation costs. On average, residents⁴¹ in the transit shed spend \$3,227 less annually than people living away from public transit. As a result of better access to jobs and public transit,

residents have fewer vehicles per household, and 22 percent of households do not own a vehicle. The neighborhoods have higher residential density, more walkable streets and smaller block sizes.

Neighborhood Characteristics	Transit Shed	Non-Transit Areas	Region
Transit Connectivity Index	14	2	3
Transit Access Shed (Square Miles)	133	51	53
Trips per Week	3,357	674	751
Jobs Accessible in 30-Minute Commute	294,313	72,957	79,380
Residential Density	10.6	1.0	1.0
Block Size (Acres)	10	22	22
Intersection Density	173	16	17
Employment Gravity	82,885	29,070	30,631
Annual Transportation Cost	\$9,767	\$12,994	\$12,900
Autos per Household	1.1	1.6	1.6
Percent Households with Zero Vehicles	22%	6%	6%

SOURCE: ALLTRANSIT™, HOUSING AND TRANSPORTATION (H+T®) AFFORDABILITY INDEX

Local Government Interventions and Housing Affordability

The City of Phoenix, along with Arizona State University, HUD and local community partners, created the “Reinvent PHX” plan to develop walkable, vibrant communities along the light rail line. The plan identifies five transit corridors outside the downtown area and provides guidelines for development. A “Walkable Urban Code” was established in the areas proximate to LRT, which includes elements of a form-based code. Since the adoption of the plan in 2015, the five corridors have experienced an increase in residential and commercial activity. Several of the multifamily developments include affordable housing and market-rate units, affordable senior housing, and retail uses.

Accessory dwelling units or guesthouses are allowed on single-family lots under Phoenix’s zoning code. Only 17 guesthouses were built between 2012 and 2016, however, and all were in non-public transit areas.

Neighborhoods with high-frequency public transportation are in high demand. As with any local amenity, without a sufficient housing supply prices can rise and make it difficult for people with a range of incomes to live near public transit. Many local governments are taking responsibility to create programs that support housing affordability and provide adequate supply.

Study Cities: Seattle

- **In the transit shed, 458,656 jobs are accessible within a 30-minute commute**
- **\$4,435 annual transportation savings from living in the transit shed**

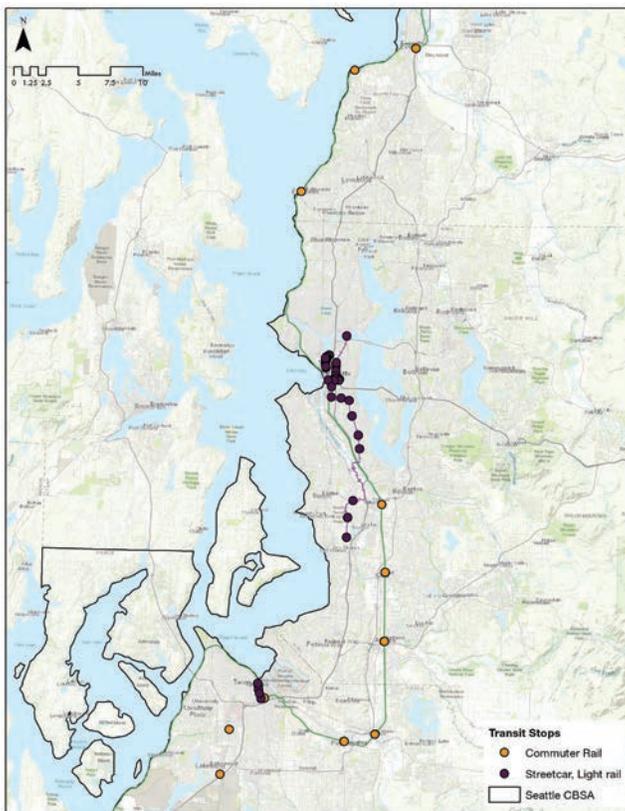


Figure 29:
Fixed-Guideway Public Transit (Seattle)

The Seattle metro area is home to 3,614,361 residents living in King, Pierce and Snohomish counties. Two public transit agencies provide fixed-guideway service to the region. The City of Seattle–owned streetcar system is operated by King County Metro. Two streetcar routes, First Hill and South Lake Union, serve 26 stations in the downtown area. Sound Transit’s light rail system provides service to 17 stations in Seattle and Tacoma. Two commuter rail lines serve 12 stations. The system is in the midst of an aggressive expansion that will result in a 116-mile system by 2041.

In the first quarter of 2018, the average weekday boardings on the Link light rail line were 70,306,⁴² and 15 percent of total boardings were made at the Westlake Station. Ridership increased by 6.4 percent as compared with the previous year. Weekday commuter rail average boardings were 16,519 on the South Line (Seattle–Tacoma) and 1,771 on the North Line (Seattle–Everett) – an increase of 9.4 percent and 2.6 percent, respectively, over the previous year. Annual ridership on the two streetcar routes in 2016 was 1,358,297.⁴³

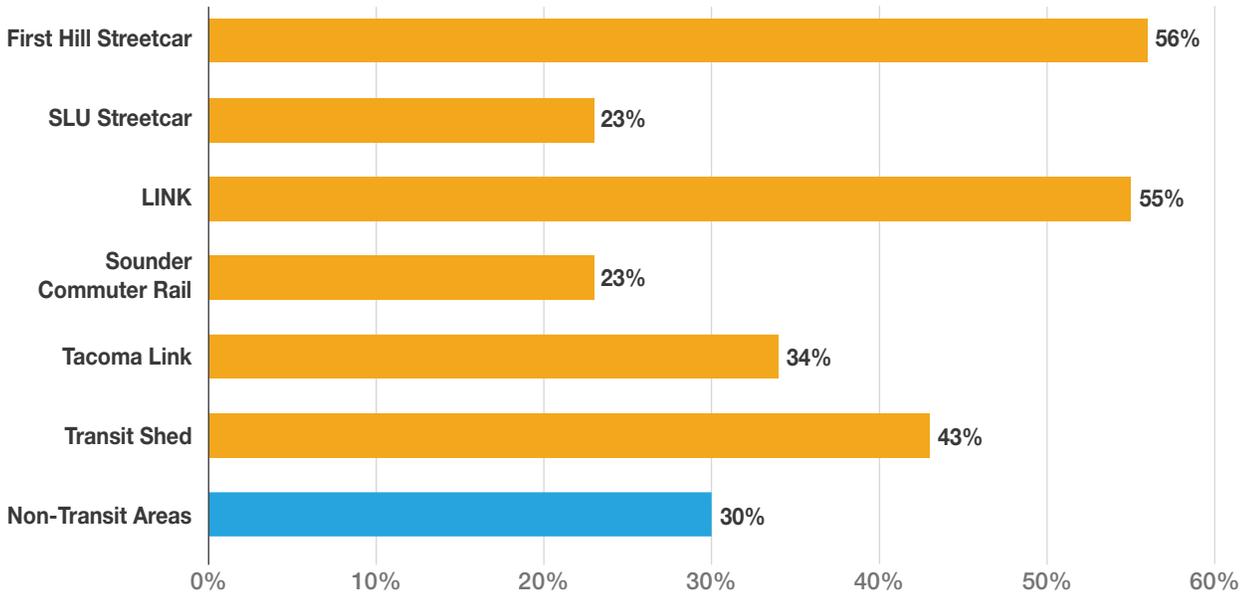
In 2016, 167,690 people in 84,485 households resided within a half-mile of fixed-guideway public transit, representing 5 percent of the region’s total population and 6 percent of households. In the transit shed, 22 percent of workers commuted by public transportation, compared with 10 percent for the region. Further, 27 percent walked or biked to work in the transit shed, compared with 5 percent in the region.

⁴² (Service Delivery Quarterly Performance Report: Q1 2018)

⁴³ (National Transit Database, 2016)

Residential Sales Performance

Figure 30: Residential Percent Change by Route



Between 2012 and 2016, median residential sales prices in the transit shed increased 43 percent, which is 13 percentage points higher than in areas away from transit. The light rail and streetcar sheds outperformed the other public transit mode sheds.

Examining sales performance by routes, station areas serving the First Hill streetcar line saw price increases of 56 percent between 2012 and 2016. Median sales prices in station areas on the light rail line grew by 55 percent.

The two station areas with the highest percentage increase in sales value are outside the downtown: Rainier Beach Station (123 percent) on the light rail line and Kent Station (114 percent) on the Seattle-Tacoma commuter line.

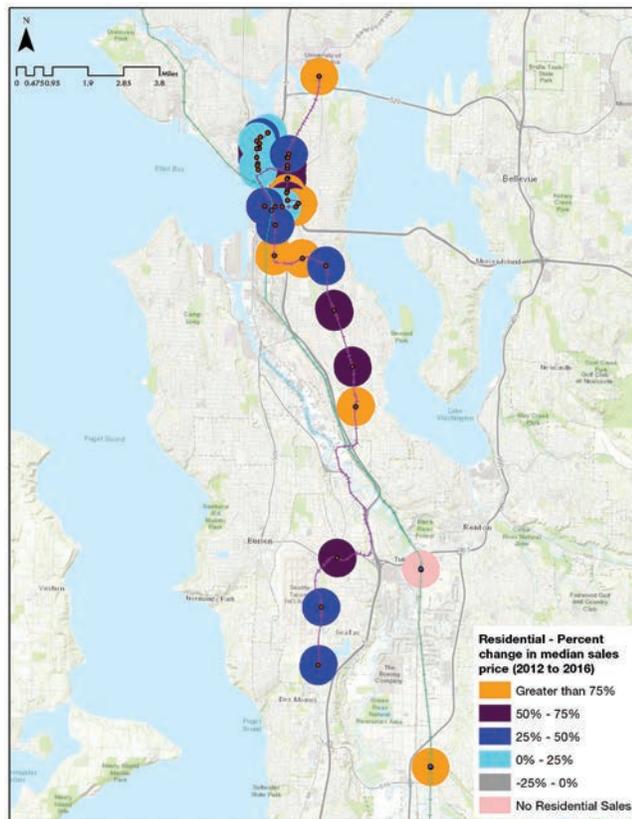
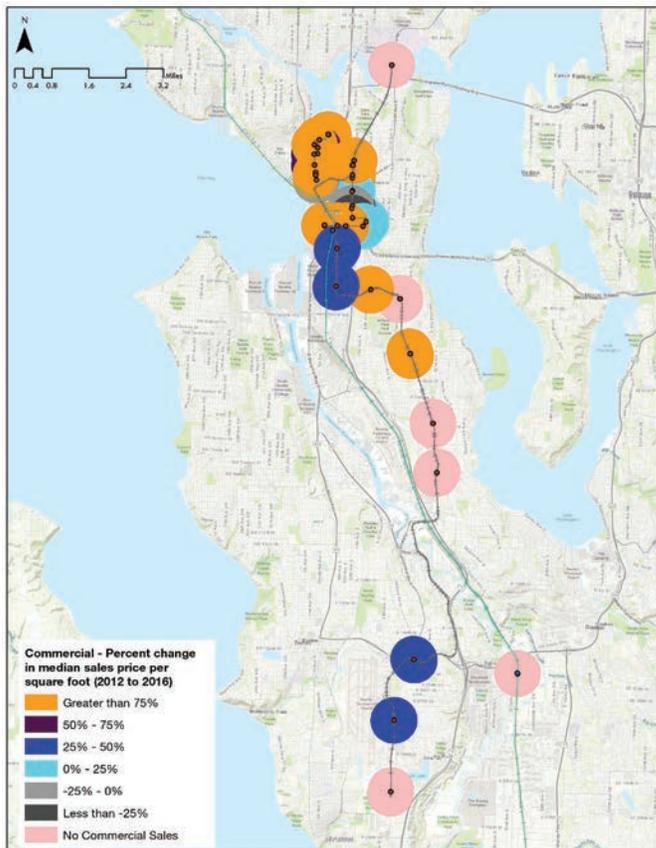
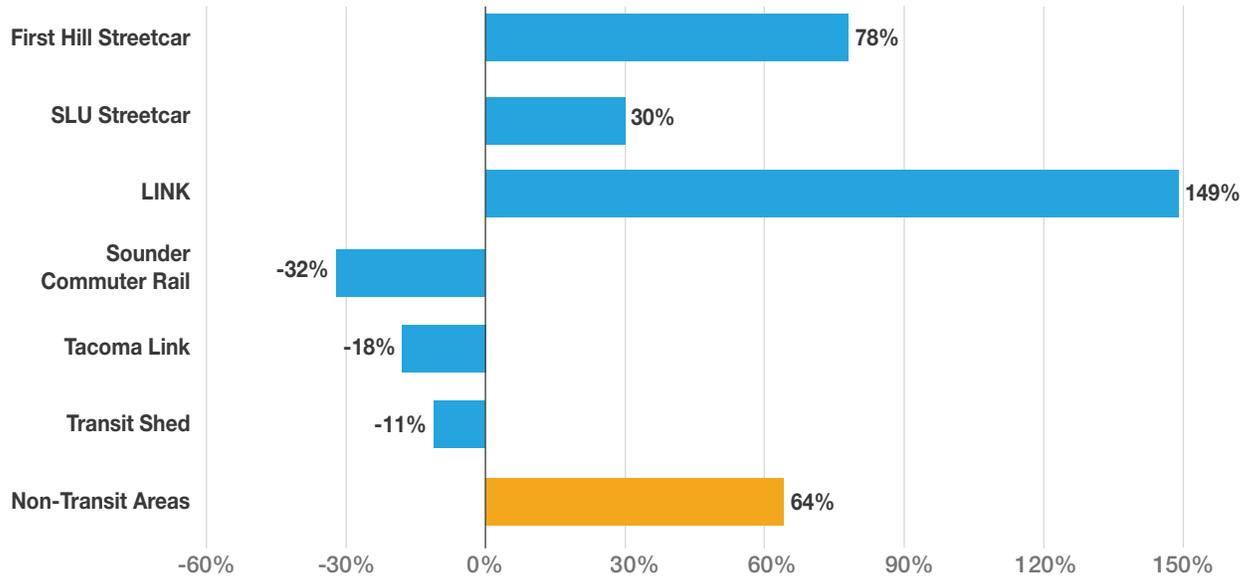


Figure 31: Change in Residential Median Sales Price (Station Area)

Commercial Sales Performance

Figure 32: Commercial Percent Change by Route



Commercial sales performance in the transit shed between 2012 and 2016 declined; median sales price per square foot decreased by 11 percent. The region and the non-transit areas, in comparison, both performed well (54 percent and 64 percent increases).

Commercial properties in the Link light rail station areas achieved price increases 2.3 times higher than the non-transit areas. The Seattle metro region's multiple centers of employment, such as Redmond and Bellevue, enhance the commercial performance of areas not currently served by fixed-guideway transit (though a light rail line to Bellevue is under construction and scheduled to be in service in 2023).

The Mukilteo commuter rail station and Columbia City light rail station are the two station areas with the greatest increase in price per square foot of commercial property: 569 percent and 185 percent, respectively.

Figure 33: Change in Commercial Median Sales Price Per Square Foot (Station Area)

Examining the breakdown of commercial properties by office and retail types provides a finer understanding of the Seattle market. Both retail and office properties in the non-transit areas fared better than property sales in the transit shed.

Some of Seattle metro's largest employers, Boeing and Microsoft, are based in suburban campuses away from fixed-guideway transit. Commercial buildings in these areas command higher prices due to the demand for office space in suburban clusters. The Eastside⁴⁴ submarket, which includes Bellevue CBD, is continuing to grow, and rental rates in Class A and B buildings are at par with rates in downtown Seattle. In recent years, demand for suburban office spaces has outpaced supply and driven up prices.⁴⁵

	Office Median Sales Price / Square Foot	Retail Median Sales Price / Square Foot
Transit Shed	-14%	+29%
Non-Transit Areas	+59%	+74%
Region	+43%	+67%

Only 13 percent of the region's retail properties sold in 2016 were within the transit shed. Seattle's retail market is undergoing changes similar to other big cities. Abundant inventory and changing shopping preferences are resulting in several large retailers modifying their store formats. Macy's in downtown Seattle sold its upper floors as commercial condo space. That space is now being repositioned for office use, and Amazon is one of its tenants.⁴⁶

⁴⁴ (Colliers International)

⁴⁵ (Bisnow, 2018)

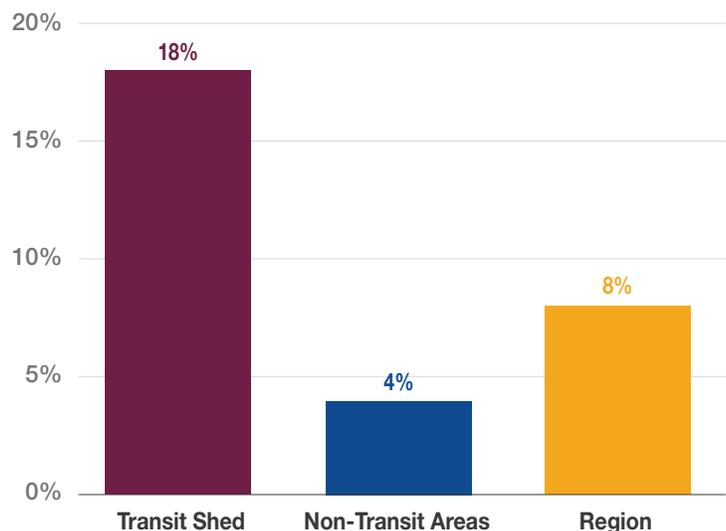
⁴⁶ (UrbanAsh)

Residential Rents

Gross median rents in the Seattle metro region, influenced by the population and job growth, increased by 8 percent. The larger share of the increased rents is in transit-proximate areas, where demand for housing has been increasing. Gross median rents increased by 18 percent in the five years leading to 2016.

Seattle's competitive rental market and rising prices due to an influx of office and residential growth in downtown have been well-documented. In 2016, 74 percent of the housing units in the transit shed were occupied by renters. The 9,150 new housing units added between 2012 and 2016 absorbed 77 percent of the renters moving into transit-proximate areas. Vacancy rates dropped to 7 percent from 9 percent in 2012.

Figure 34: Change in Residential Rents





Neighborhood Characteristics

⁴⁷ Regional typical household assumes a household income that is the median income for the region, the average household size for the region and the average commuters per household for the region.

A resident living in the transit shed has **7,989 transit trips per week available, compared with 1,374 transit trips for the average resident in the region.** Improved access to public transit results in a larger number of jobs accessible without owning

a vehicle. Three out of 10 households in the transit shed do not own a vehicle. The result of better access to jobs and public transit, higher residential density, and more walkability, is savings in transportation costs for the typical household⁴⁷—\$347 per month.

Neighborhood Characteristics	Transit Shed	Non-Transit Areas	Region
Transit Connectivity Index	21	3	4
Transit Access Shed (Square Miles)	152	61	67
Trips per Week	7,989	948	1,374
Jobs Accessible in 30-Minute Commute	458,656	151,051	169,640
Residential Density	15.4	1.1	1.2
Block Size (Acres)	4	27	26
Intersection Density	296	31	32
Employment Gravity	196,593	31,564	41,537
Annual Transportation Cost	\$9,428	\$13,863	\$13,595
Autos per Household	1.0	1.7	1.7
Percent Households with Zero Vehicles	30%	7%	8%

SOURCE: ALLTRANSIT™, HOUSING AND TRANSPORTATION (H+T®) AFFORDABILITY INDEX

Local Government Interventions and Housing Affordability

Seattle's increasing tech sector employment, migration of higher-income workers and low housing inventory has played a role in the city's housing unaffordability crisis. The City of Seattle has been proactively exploring innovative solutions such as removing regulatory barriers to building accessory dwelling units (ADUs). The city first legalized ADUs in 2015 and is now proposing land use changes to allow two ADUs on one lot, relaxing parking and owner-occupancy requirements.

Seattle's Housing Affordability and Livability Agenda maps out the path to create a net increase of 50,000 units by 2025, of which 40 percent will be affordable units. The plan suggests creation of housing for all income levels through increased density in "Urban Villages," or areas close to urban amenities, to decrease automobile dependency.

Sound Transit works with community partners to create affordable housing on the agency's surplus properties, as required by

Washington State statute. Land sales are deeply discounted for projects that guarantee creation of 80 percent affordable housing units in the development. Currently, the three projects underway are geared toward seniors, households and families making between 30 and 60 percent of the area median income near light rail stations in Seattle.

Communities in East King County have created a coalition to address affordable housing, called A Regional Coalition for Housing (ARCH). The coalition provides technical assistance and best practices, and awards loans to provide below-market-rate housing. Neighborhoods with high-frequency public transportation are in high demand. As with any local amenity, without a sufficient housing supply, prices can rise and make it difficult for people with a range of incomes to live near public transit. Many local governments are taking responsibility to create programs that support housing affordability and provide adequate supply.

Affordability Concerns Near Public Transit

While property values and rents have risen, contributing to a healthy local economy, the rapidly increasing demand for housing near public transit has resulted in constrained housing supplies. This in turn has caused affordability challenges for residents.

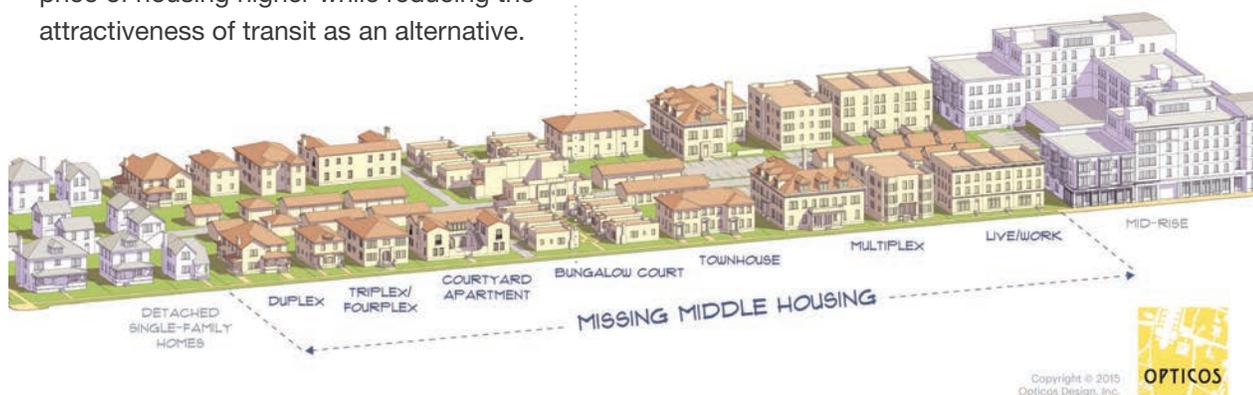
As this study has outlined, public transportation is an invaluable community amenity that increases the attractiveness of a neighborhood. Public transit investment is a unique policy intervention in that it can both increase accessibility and benefit property owners. With these great outcomes is a responsibility to ensure that housing near transit remains available to as many people as possible. The implementation of strategies to do this lie largely outside of the purview of the transit agency and may differ from one community to another. The following are potential policy tools for addressing this issue:

- 1) Provide “missing middle housing.”
Multiunit housing with a scale compatible with single-family homes is attractive because of the simplicity of construction for developers and the ability to blend into existing neighborhoods.
- 2) Provide more funds for affordable housing construction. By allowing an increased number of affordable housing units near transit, overall community affordability may be addressed. Some communities currently make providing affordable housing very difficult.
- 3) Reduce or eliminate parking minimums. Requiring more parking than developers or the market deem necessary can drive the price of housing higher while reducing the attractiveness of transit as an alternative.

- 4) Reduce permitting wait times. The longer a developer must go through a permitting process, the higher the costs are to hold the property—translating into higher housing costs.
- 5) Allow for higher densities in desirable neighborhoods. With higher-income buyers increasing the demand for desirable locations, lower-income groups can be displaced to areas farther away with less public transit service. By allowing for more density in desirable areas, through rezoning or up-zoning, housing supply can be increased. Additionally, instituting mandatory minimums for below-market-price units can help install some affordable housing in all new developments. This can all reduce the likelihood of displacement.

These are just a few of the possible policy interventions to improve affordability near public transportation. They are all outside the jurisdiction of most transit agencies and will require a broad political coalition throughout the community. As a result, the mix and types of interventions will differ based on the values and economic well-being of a community.

For example, some communities may decide against a supply-side solution and may instead decide to increase the amount of



funding available in an affordable housing fund. Another community may see expansion of its housing supply as the only effective solution.

Many will say an “all of the above” strategy is the only way to seriously address the

affordability crisis, though efforts large and small will be important in developing solutions in concert with local community input. As the housing affordability conversation continues, public transportation agencies are critical allies in the effort to increase density and maximize value around stations.

Conclusion

The presence of fixed-guideway public transportation (rail and bus rapid transit) has a strong correlation to higher property values. The findings of this report show that for the regions studied, the average increase in sales prices of properties within the transit shed (a half-mile from stations) exceeded that of those outside of the transit shed.

The benefits of public transit are also made clear from this analysis. People living in transit sheds have lower annual transportation costs and have access to a greater number of jobs within a 30-minute commute, along with connections to more destinations.

The findings of this report should make it even clearer that public transit’s benefits go beyond moving people from point A to point B. Transit creates value and, as a result, influences development and business location decisions (supporting resilient tax bases). This creates additional ridership, reducing automobile travel and carbon emissions. Supporting further public transit service expansion, along with appropriate land use policies, can further propel development and housing opportunities.

Methodology

Data Sources

Residential & Commercial Sales Data (2012 and 2016)

Boston, Hartford, Los Angeles, Phoenix, Seattle: Recorder of deeds sales at point level from ATTOM Data Solutions

Eugene: Recorder of deeds sales at parcel level from Lane Council of Governments (residential only)

Minneapolis–St. Paul: Recorder of deeds sales at parcel level from Metropolitan Council (residential only)

Residential Rents (2012 and 2016)

Gross median rent values at the Census Block Group level for the years 2012 and 2016 were gathered from the American Community Survey (ACS) 5-Year Estimates. The 2012 value was then inflated using the national CPI (5.0 percent increase) to reflect the rent in 2016 dollars.

Transit Stations

Station locations were obtained from General Transit Feed Specification (GTFS) data from individual transit agencies. For routes that are not operational yet (Crenshaw Line in Los Angeles) the transit agency websites were consulted for station locations.

AllTransit™

The Center for Neighborhood Technology's AllTransit tool is a broad and comprehensive transit dataset in GTFS format assembled by CNT for fixed rail station areas; bus stops; and frequency for most scheduled bus, rail, and ferry service in metropolitan regions over 100,000 in population. The tool leverages this unique dataset, consisting of publicly

available and internally compiled GTFS data, to report metrics about the functionality and value of transit, taking into account scheduled frequency and connectivity.

Housing & Transportation (H+T®) Affordability Index

The Center for Neighborhood Technology's Housing + Transportation Affordability Index (H+T Index) is an innovative tool that measures the true affordability of housing by calculating the transportation costs associated with a home's location.

Geography Descriptions:

Transit Zone: The transit zone or station area is the area encompassing a half-mile radius around a fixed-guideway transit station location. A transit zone is calculated for each transit station; overlaps with other fixed-guideway transit zones might occur.

Transit Shed: The transit shed is an aggregation of transit zones to create a single geographical unit. The transit shed eliminates double-counting in overlapping transit zones. Transit sheds are also created by transit mode and transit agency.

Non-Transit Areas: The geographical area within a region that falls outside the transit zones and transit sheds is the non-transit area. There is no fixed-guideway transit station within a half-mile in the non-transit areas.

Region: Regions are Census-designated Metropolitan Statistical Areas, defined by the Census as a county, counties or equivalent entities associated with at least one urbanized

core of at least 50,000 in population. Adjacent counties that have a high degree of social and economic integration with the core (as measured through commuting ties with the counties associated with the core) may also be included.

Calculation of Sales Performance and Other Metrics:

In the seven regions, fixed-guideway transit station locations were extracted from GTFS data and geocoded. A half-mile buffer was constructed around each station point location, and transit zones were merged to create regional transit sheds.

Recorder of deeds sales data greater than \$1 that were within two standard deviations of the mean sales price for both residential and commercial properties was identified (eliminating outliers that skew the results). Median residential sales price and median sales price per square foot for commercial properties in 2012 and 2016 were calculated for each transit zone, transit shed, non-transit area and region. Data from 2012 was converted to 2016 dollars to adjust for inflation. The percent change in sales values between the two years was calculated. Median sales values were also calculated by transit mode and transit agency. Commercial data was further parsed out by property type, median sales price per square foot for office and retail properties, and then broken down

by the size of the properties (large, medium and small based on the U.S. Department of Energy's building classifications).

To find the average gross median rent for each transit shed and non-transit area, the Census Block Group American Community Survey 5-Year Estimates data for 2012 and 2016 was used to calculate a weighted average of the median gross rent by taking the proportion of each block group that intersects the transit shed and non-transit areas, and multiplying that proportion by the median gross rent weighted by the number of renter-occupied households. Recall that the 2012 value was then inflated using the national CPI (5.0 percent increase) to reflect the rent in 2016 dollars.

Supplemental data on transit quality and built environmental characteristics were gathered from CNT's AllTransit and H+T Index. Transit quality data includes transit connectivity index, transit access shed, trips per week and jobs accessible in a 30-minute transit trip. The data is calculated at the Census block group level and aggregated to the transit shed and other geographies. The built environment data encompasses density, block size and annual transportation costs modeled for the "typical regional household." The typical regional household is a household earning the area median income, with the average household size for the region and the average number of commuters per household.

THE REAL ESTATE MANTRA LOCATE NEAR PUBLIC TRANSPORTATION

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