L C
R T
Lowcountry
Rapid Transit

BCDCOG
BERKELEY-CHARLESTON-DORCHESTER
COUNCIL OF GOVERNMENTS

Real Estate Market Findings

April 2020

TOD Planning Around the LCRT

The following market assessment is a core component to planning for transit-oriented development around the proposed Lowcountry Rapid Transit line

This market assessment is part of the Lowcountry Rapid Transit TOD planning initiative. The assessment will be used to inform the planning process to identify (1) where development opportunities exist along the potential alignment and (2) where there may be need for public intervention to achieve desired community TOD goals.

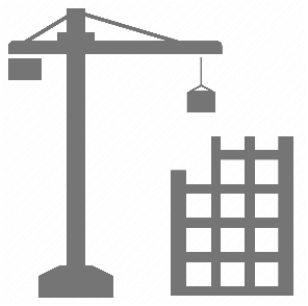
Market Methodology

SB Friedman's market methodology consists of 5 core components: regional context, demand, supply, interviews, and case study research. The combined output of the analysis is a development program, with specific projections for the square foot or unit increase by land use from 2020 to 2040. Forecasts are driven by BCDCOG demand forecasts, adjusted to include a 2018 baseline year based on Census Population Estimates and the Bureau of Economic Analysis.

The development program is intended to inform a market-based vision for the Lowcountry Rapid Transit (LCRT) corridor (the "Study Area").

Transformational Impact of Bus Rapid Transit (BRT)

SB Friedman evaluated the real estate market before and after the introduction of transit in four national case studies (Eugene, OR; Cleveland, OH; San Bernardino, CA; and Hartford, CT) to quantify the potential impact of LCRT in the Berkeley-Charleston-Dorchester (BCD) region. The impact of BRT was measured through three primary metrics: the historic pace of development, the share of regional development that occurs within a half mile of a BRT line, and the density – or floor-area-ratio (FAR) - of development.



DEVELOPMENT ABSORPTION

DEVELOPMENT SHARE

DEVELOPMENT DENSITY

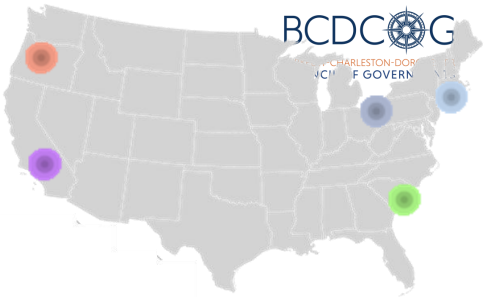
Pre-BRT (Before)[1] | **Post-BRT (After)[2]**

BRT INTRODUCED

[1] Before analysis period is from 2000 to the year of BRT introduction
[2] After analysis period is from the year following BRT introduction to 2019. Analysis period varies by case study.

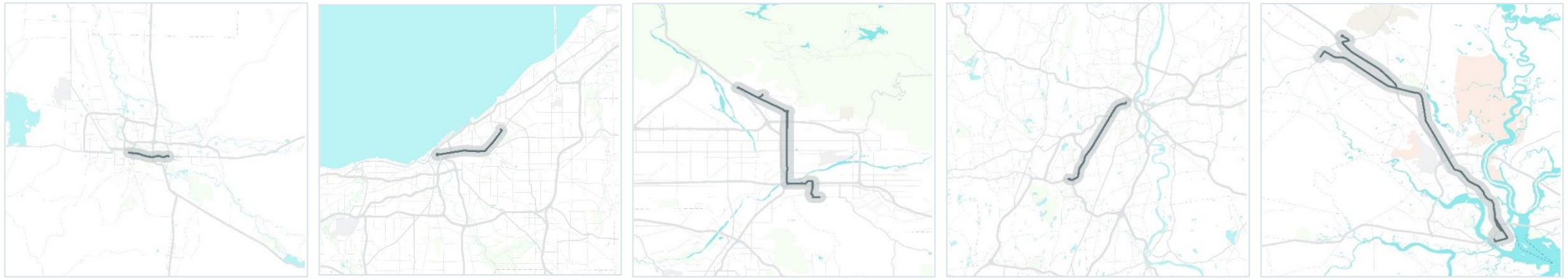
Exploring the Evidence: BRT Case Studies

Case studies include mid-size cities with high-frequency BRT lines implemented between 2005-2015



BRT Line

Half Mile Buffer



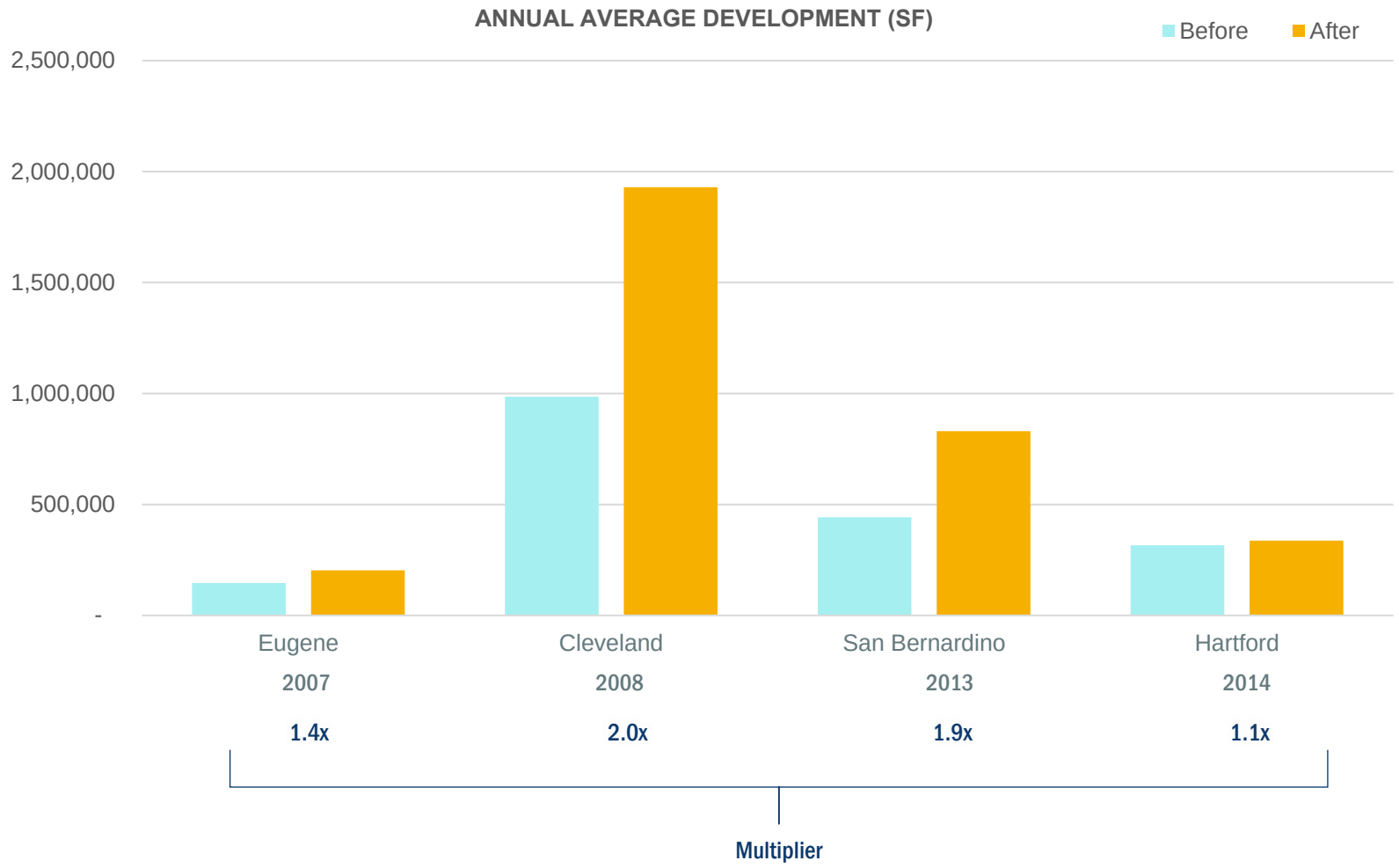
	EUGENE, OR Emerald Express (EmX)	CLEVELAND, OH HealthLine	SAN BERNARDINO, CA sbX	HARTFORD, CT CTfastrak	LOWCOUNTRY, SC LCRT
Peak Frequency	10-minutes	10-minutes	10-minutes	7-minutes	10-minutes
Miles	3.8-miles	7.1-miles	15.7-miles	9.4-miles	26-miles
Stations	9	36	16	14	21
Weekday Ridership	4,700	14,367	3,000	18,400	N/A
Route Time	15-minutes	34-minutes	56-minutes	30-minutes	60-minutes
BRT Standard	Bronze	Silver	Bronze	Silver	(Proposed – Gold)

TIMELINE

2007 2008 2013 2014 2025

Development Absorption within the Corridor

Annual development within half mile buffer increased in each case study



Within each of the four case studies, the annual average inventory added to the market within a half mile of the BRT line increased in the analysis period following introduction of BRT.

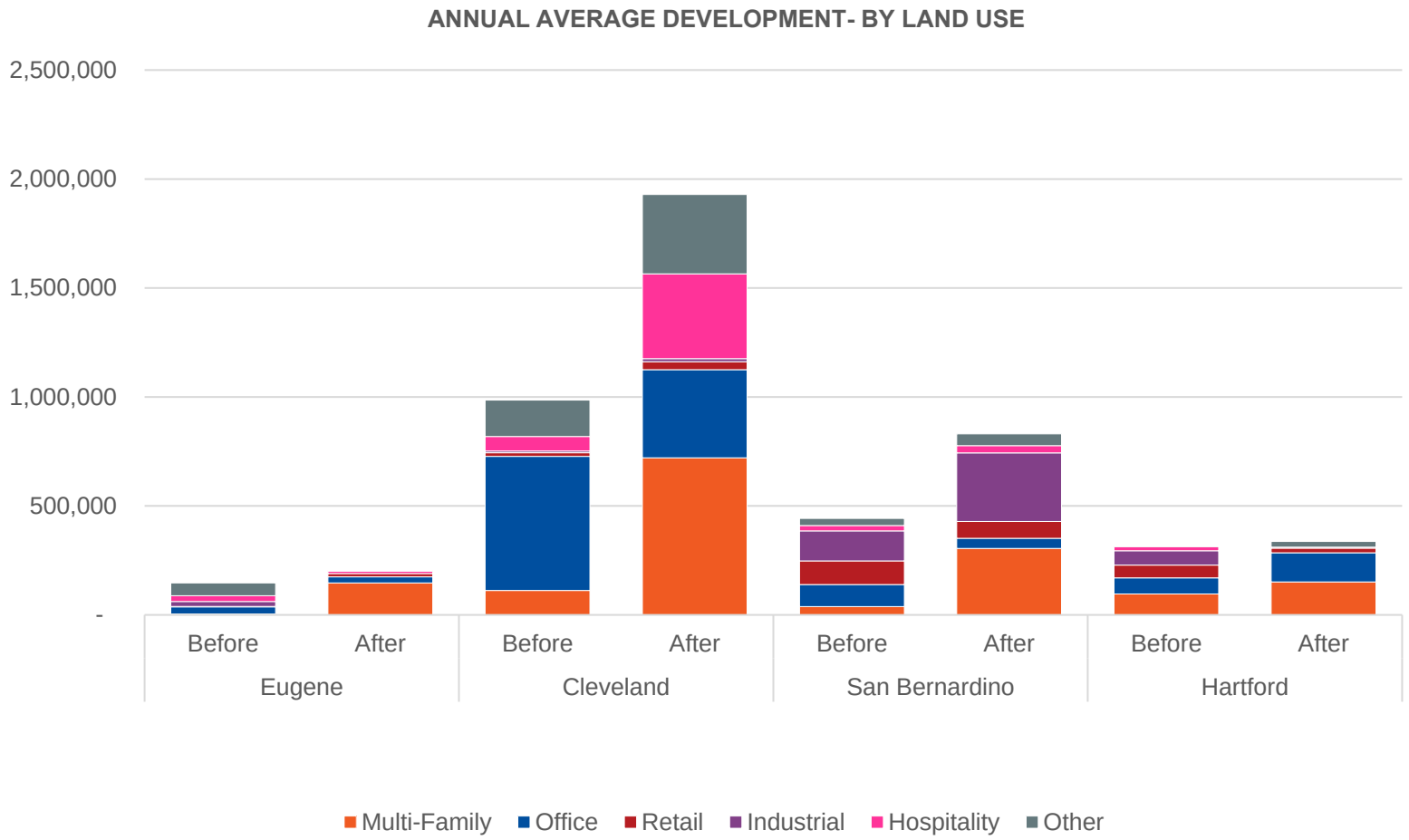
SB Friedman converted the increased rate of development to a BRT multiplier, or the factor used to identify the increase in development. In Cleveland, for example, the half mile around the HealthLine experienced approximately 1 million square feet of development annually prior to the introduction of BRT. Following introduction, the annual average rate of development increased to nearly 2 million square feet. The BRT multiplier for Cleveland is 2.0x, indicating the development doubled along the half mile buffer.

The BRT multiplier for the change in annual average development absorption ranges from 1.1x to 2.0x for the four case studies.

Source: CoStar, SB Friedman

Development Absorption

Multi-family residential development has the highest multiplier in each of the case studies



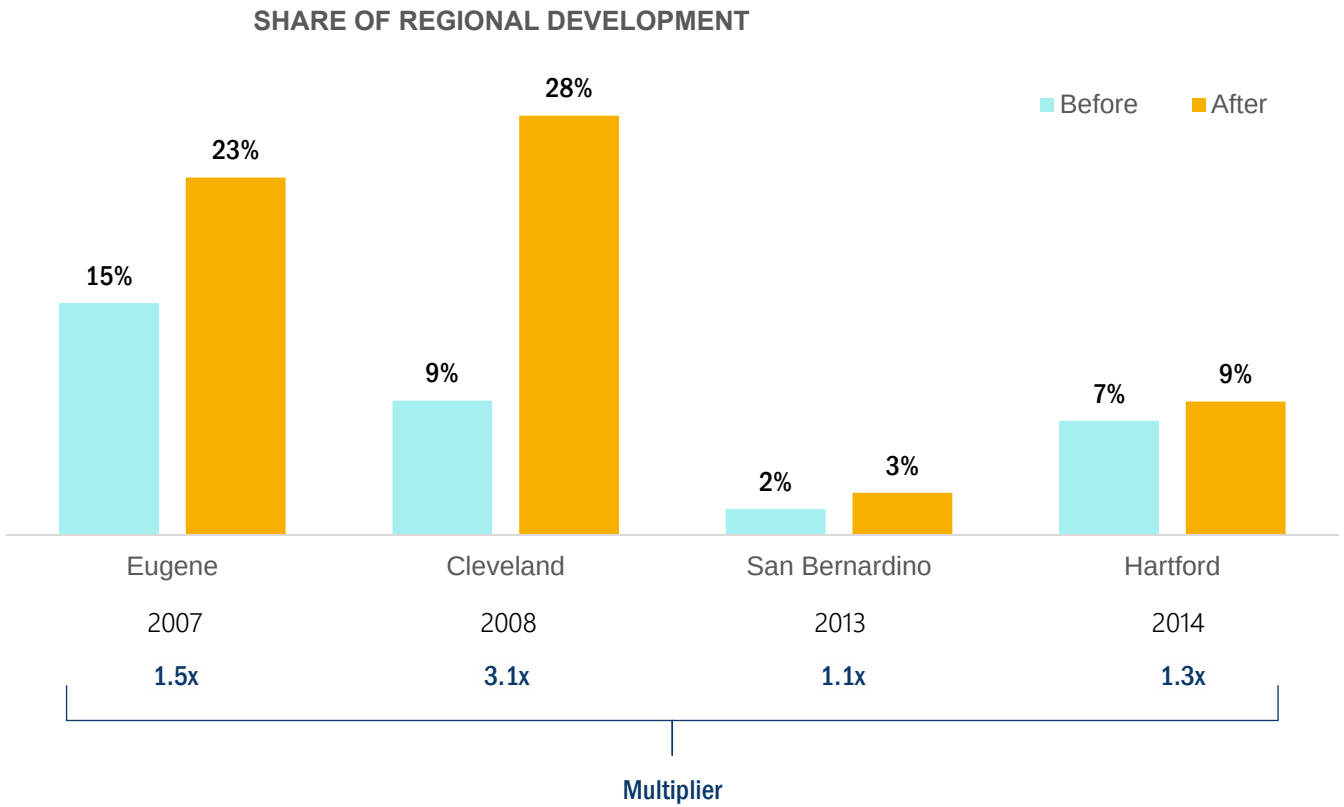
While all four case studies exhibited a gross increase in development following introduction of BRT, the impact by land use varied from case study to case study. However, the common factor amongst all case studies was a multifamily multiplier effect occurring within deliveries along the half mile buffer.

Source: CoStar, SB Friedman

Development Share of Regional Growth

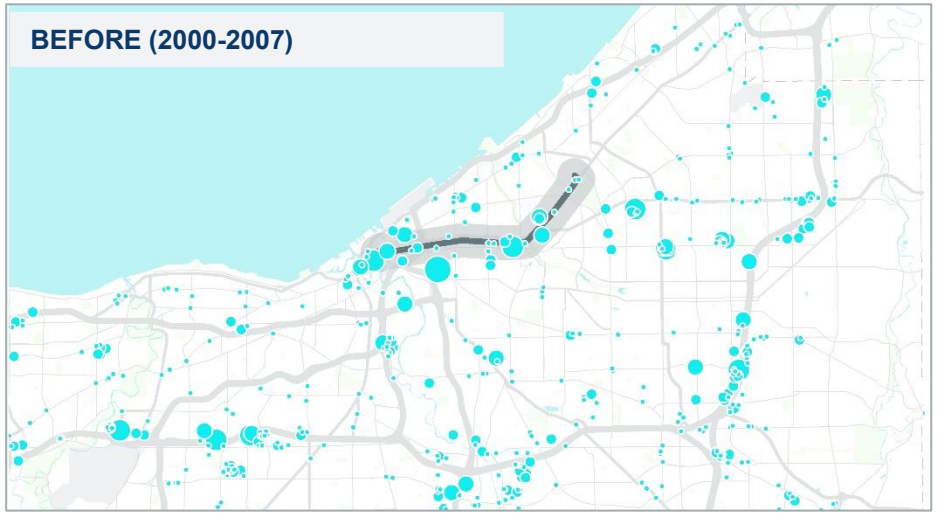
The share of regional development within half mile buffer increased in each case study

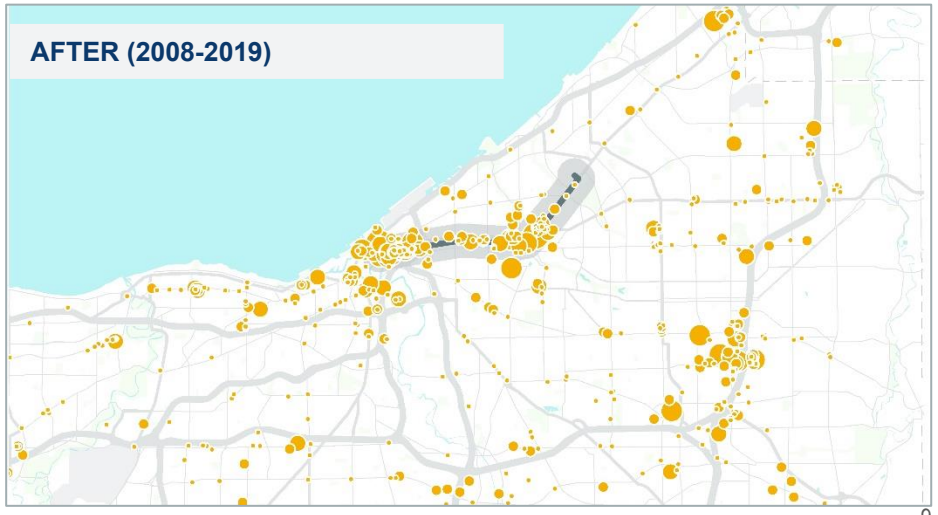
A second consideration is the spatial distribution of development. In all four of the case studies, the percent of the development in the region occurring within the half mile buffer around the BRT line increased following BRT introduction. For example, in Eugene only 15% of all development within the metropolitan statistical area occurred along the BRT corridor prior to BRT, versus 23% after the EmX line opened. The BRT multiplier for the share of development ranges from 1.1x-3.1x.



Source: CoStar, ESRI, SB Friedman

CLEVELAND





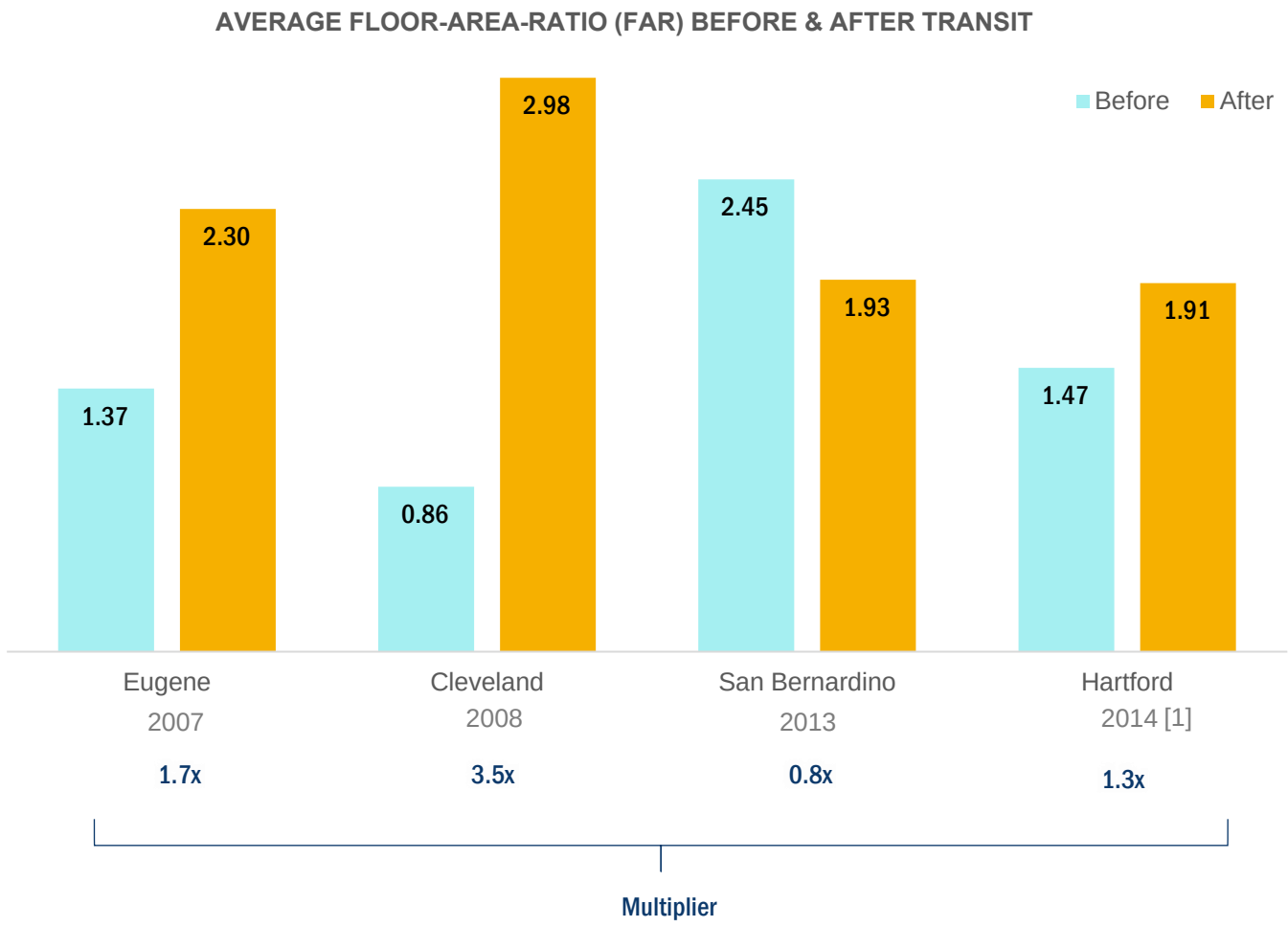
Development Density

Density of development increased in 3 of 4 case studies

Floor Area Ratio or FAR is a metric used to measure development density. The metric measures the ratio of building area (excluding parking garages) versus land area; if the FAR equals 1.0 the building area exactly equals the land area of a site. A FAR greater than 1.0 indicates the building area exceeds land area (indicative of multiple stories).

Of the four case studies, the FAR increased in all except San Bernardino. The case study with the greatest increase in FAR was Cleveland, which experienced predominately low-density development prior to the BRT. Following the HealthLine introduction, development density in Cleveland increased from an average FAR of 0.9 to an average of 3.0. The increase in average FAR was facilitated through additional policy and public changes that permitted higher densities along the BRT.

The density BRT multiplier for all case studies ranged from 0.8x-3.5x. The only case study with a development density multiplier below zero was San Bernardino, which was likely a result of the existing dense building environment.



[1] Analysis only includes development within the City of Hartford

Source: CoStar, SB Friedman

Pre- and Post- BRT Density

Cleveland comparison of FAR and units per acre before and after the HealthLine

Source: CoStar, Google Earth, SB Friedman

Public Realm Improvements in Cleveland

In addition to investments in BRT infrastructure, municipalities have also spurred development by investing in public realm improvements that coincide with transit. In Cleveland, the HealthLine implementation was coupled with streetscaping, new sidewalks, paved medians and other improvements to make Euclid Avenue a more walkable, pedestrian friendly environment.

These public realm improvements are equally as important if municipalities want to fully leverage the transformational impact BRT could have on the community.

Image Source: Google Images

Other Considerations

BRT corridor success is typically driven by three key factors

Shifting real estate patterns, in part attributable to the presence of BRT, are more specifically a function of three key factors: government support, land potential and the standard of BRT implemented. As previously mentioned in the Cleveland case study, government support with public realm improvements can have a significant impact on the pedestrian environment which is attractive the development community. Land potential is also a critical component, as transit improvements alone will typically not establish a real estate market. There also needs to be land available for development and proven market strength. Finally, higher quality BRT transit lines are more appealing to the development community. Higher quality BRT is indicative of long-term public investment to developers.

1. GOVERNMENT SUPPORT

- Public realm improvements: streetscape, pedestrian network to stations
- Regulatory framework that encourages TOD
- Public financing incentives to encourage TOD form (parking structures, higher FAR)

2. LAND POTENTIAL

- Real estate market potential
- Land capacity
  - Opportunity development sites

3. BRT STANDARD

- Quality of transit: speed, and reliability:
  - Quality stations
  - Dedicated ROW
  - Signal prioritization
  - Off board fare collection
  - Level boarding

Source: ITDP More Development for Your Transit Dollar

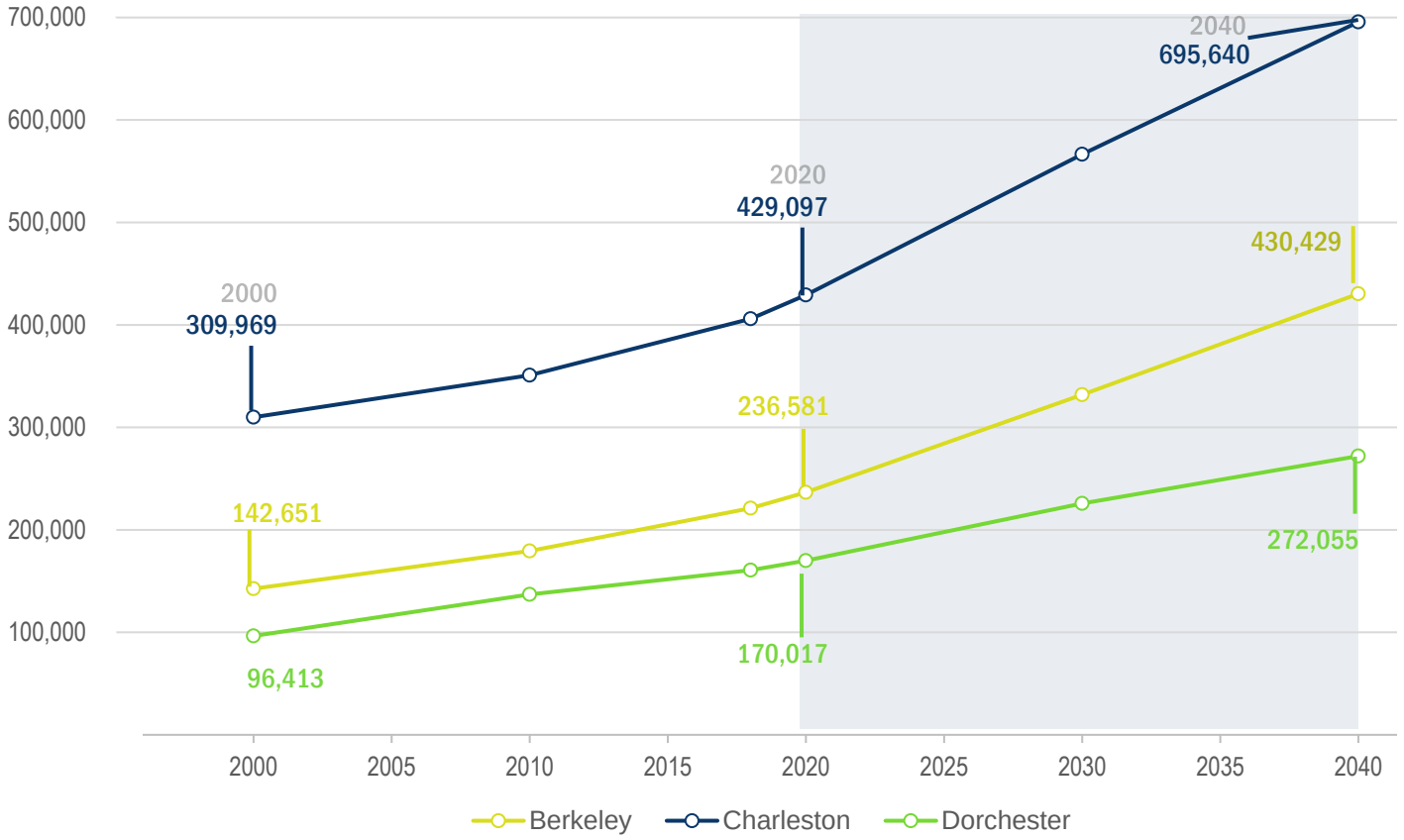
Berkeley-Charleston-Dorchester Region Demographics

POPULATION | EMPLOYMENT

Population Growth by County: Historic and Projected

The region is projected to see an annual increase of over 28,100 residents through 2040

Population in Berkeley, Charleston, and Dorchester Counties (“BCD region”) grew by approximately 287,000 residents between 2000 and 2020. The region is expected to add 562,000 additional residents between 2020 and 2040, an annual increase of approximately 28,100 residents. While Charleston County has the largest number of residents in the BCD region, Berkeley has the highest compound annual growth rate (CAGR) between 2020 and 2040, at 3.0%.



+562,370

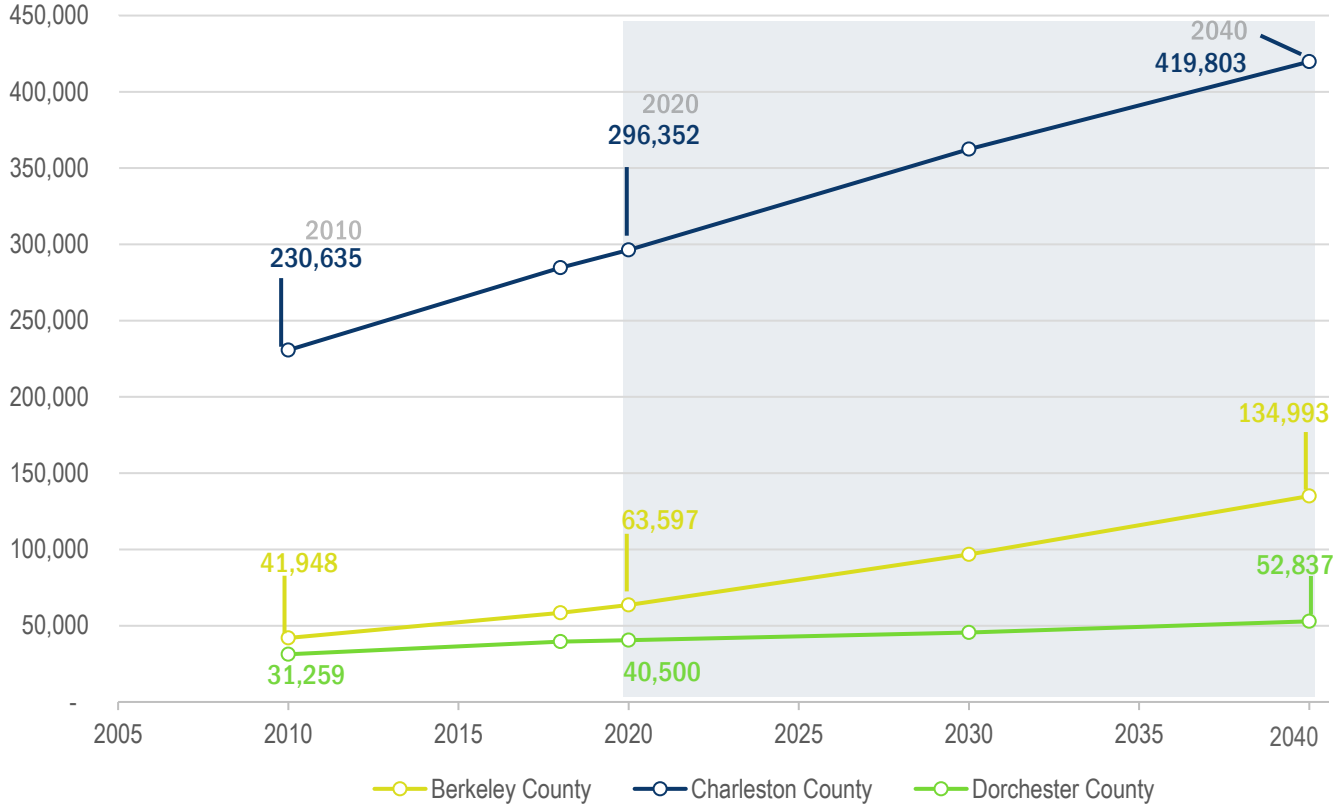
BCD REGION PROJECTED POPULATION GROWTH: 2020-2040

Source: BCDCOG Charleston Area Transportation Study; Esri Business Analyst; SB Friedman; US Census Bureau

Employment Growth by County: Historic and Projected

Berkeley County has the fastest annual projected employment growth rate at 3.8%

Employment in the region grew by more than 96,900 employees between 2010 and 2020. The region is expected to add 207,000 jobs between 2020 and 2040, an annual increase of approximately 10,300 jobs. While Charleston County has the largest number of employees in the BCD region, Berkeley has the highest projected CAGR between 2020 and 2040 at 3.8%, outpacing the projected population growth rate.



+206,870

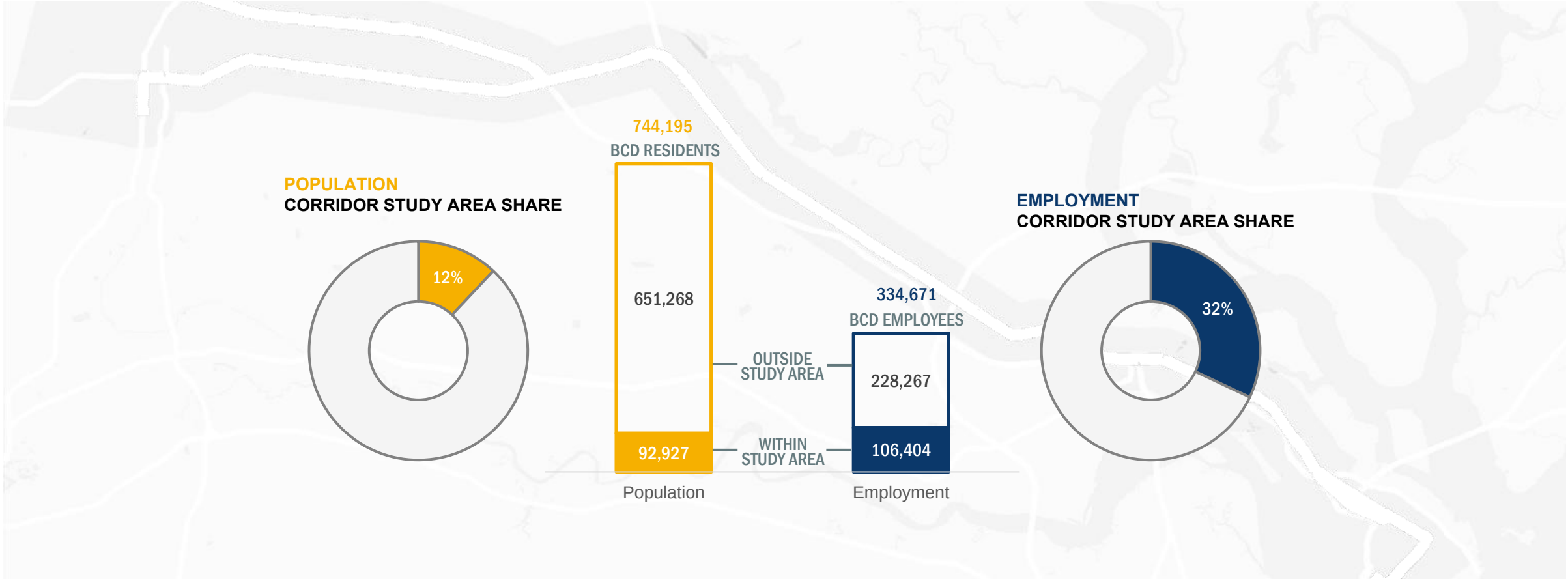
BCD REGION PROJECTED EMPLOYMENT GROWTH: 2020-2040

Source: BCDCOG Charleston Area Transportation Study; BEA; SB Friedman

Population & Employment in the Corridor Study Area

In 2017, more than 30% of jobs in the region were in the Corridor Study Area

The region has more than 744,000 residents, approximately 92,900 of whom live in within a half mile from the alignment (“the Study Area”); or 12% of the BCD regional population. The region has nearly 334,700 employees, approximately 106,400 of whom work in the Study Area. 32% of BCD employees work in the Study Area. While the Study Area is less than 2% of the BCD region land area, it is home to a much greater share of the regional employers due to the central location of the corridor.



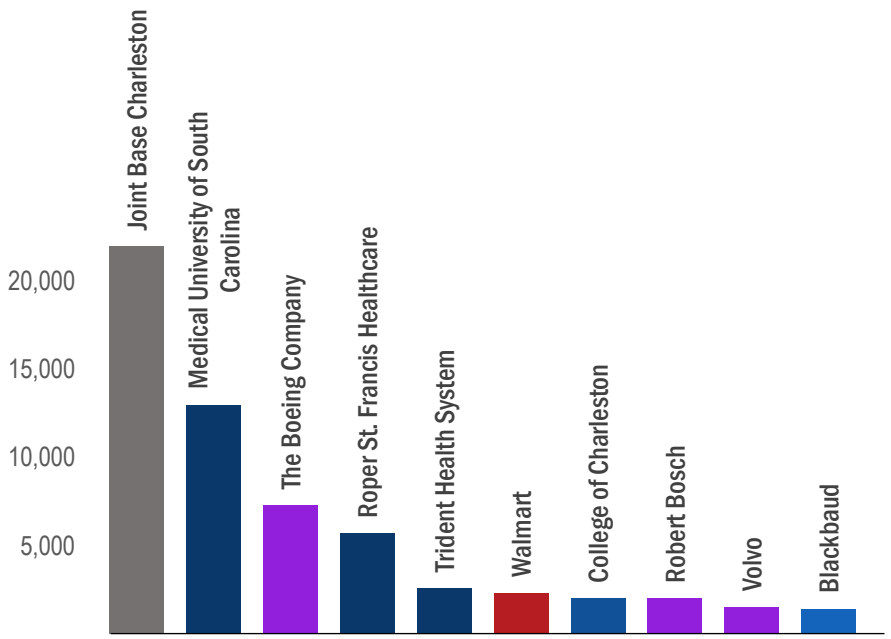
Source: Longitudinal Employer-Household Dynamics; SB Friedman

Top Employers in the Region

The Study Area is home to three top regional employers and adjacent to others

The Study Area includes campuses for three top regional employers and is near other large company campuses including Boeing and Robert Bosch.

Joint Base Charleston is the top employer in the region with more than 22,000 jobs. Across all the region's top employers, there are more than 21,000 jobs in the healthcare field.

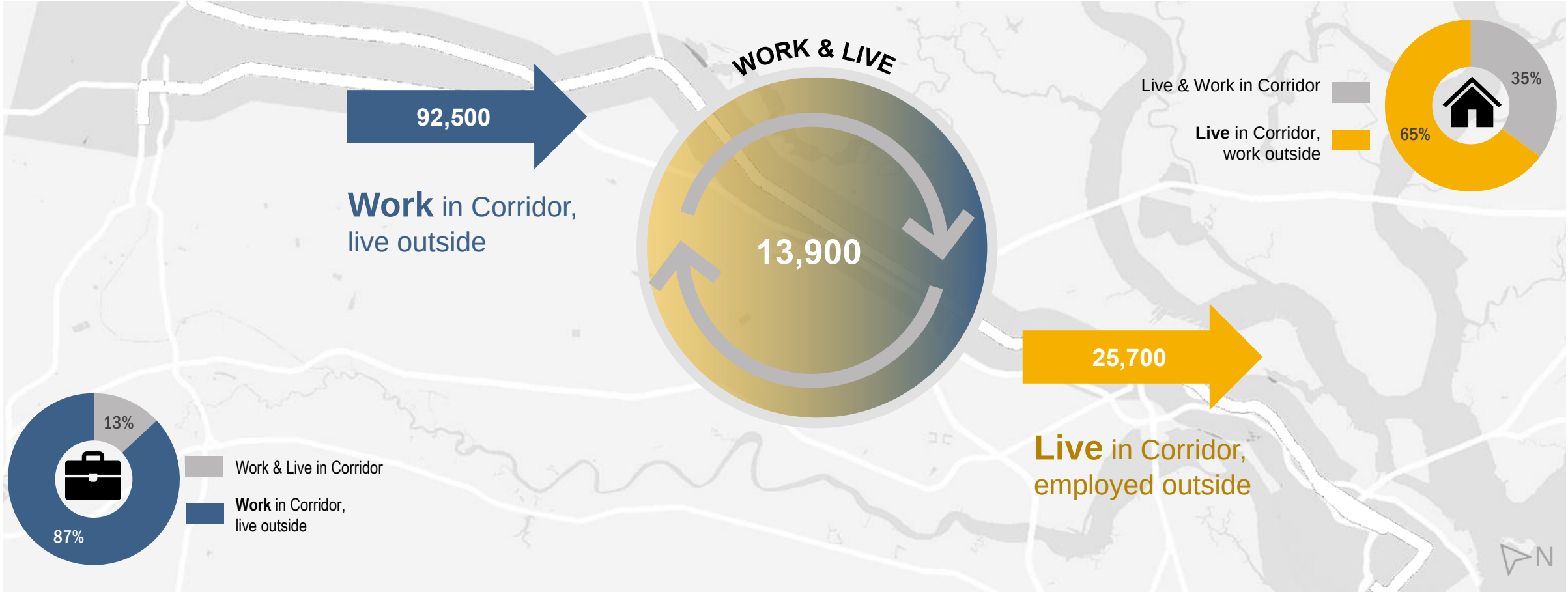


Source: Charleston Regional Development Alliance, SB Friedman

Work/Live in the Corridor Study Area

The majority of people who work in the Study Area are living elsewhere in the region

In 2017, approximately 13,900 people both worked and lived in the Corridor Study Area. Approximately 92,500 people commute into the Study Area to work, which accounts for 87% of all people who work in the Corridor. Meanwhile, approximately 25,700 people live in the Corridor but are employed outside. The large number of people commuting to the corridor for employment is an indicator of potential demand for additional residential alternatives closer to employment centers.



Source: Longitudinal Employer-Household Dynamics, SB Friedman

Residential

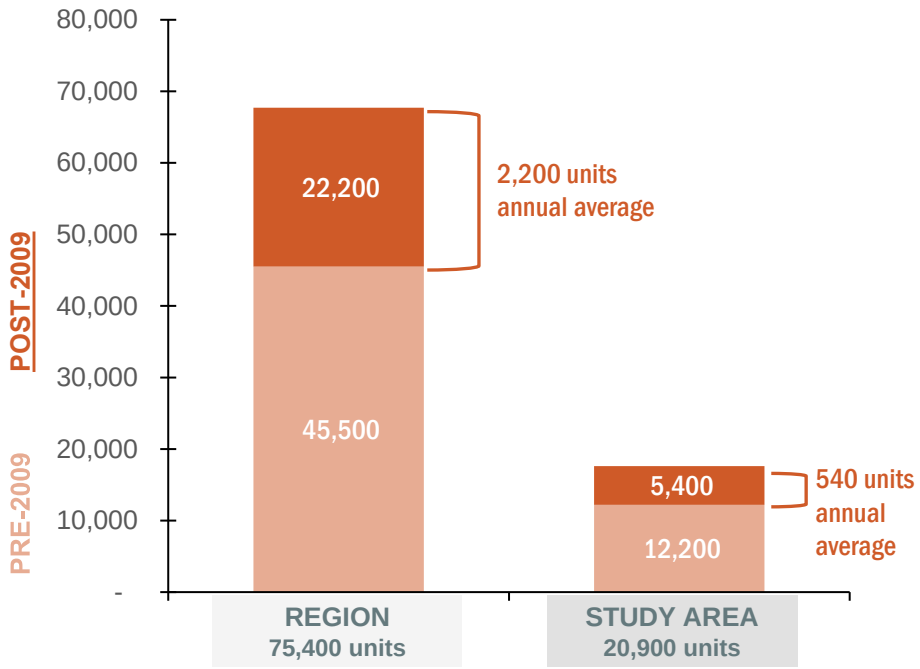
BCD REGION EXISTING INVENTORY | NEW DEVELOPMENT | REGIONAL SUBMARKETS

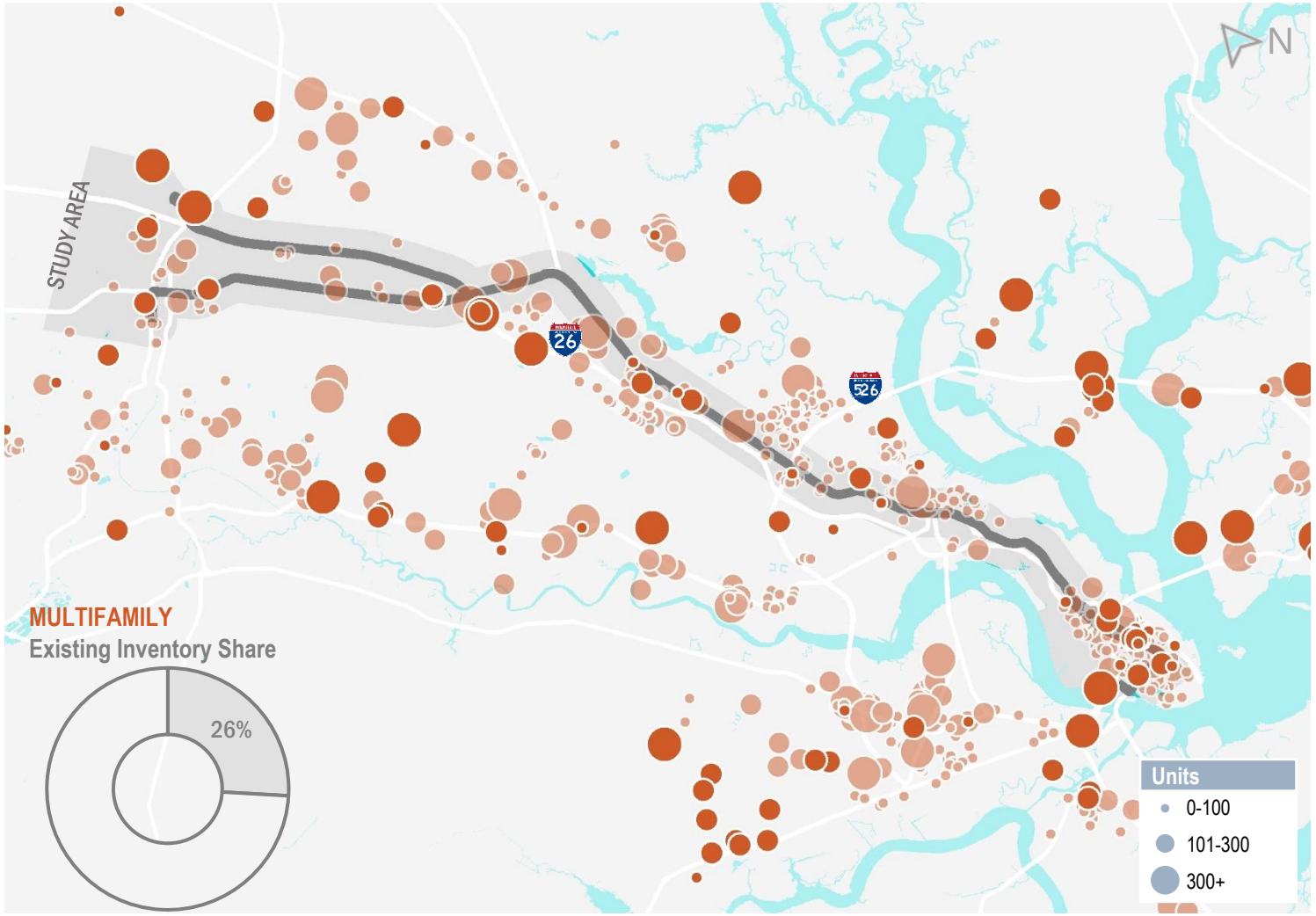
Residential – Multifamily Existing Inventory

Approximately 26% of the existing regional multifamily inventory is in the Study Area

The region has over 75,000 existing multifamily units, approximately 21,000 located within the Study Area. Accordingly, the share of existing multifamily units within the Study Area is 26%.

On average, the region has added 2,200 multifamily units annually since 2009. 540 of the new regional units annually were located within the Study Area on average.





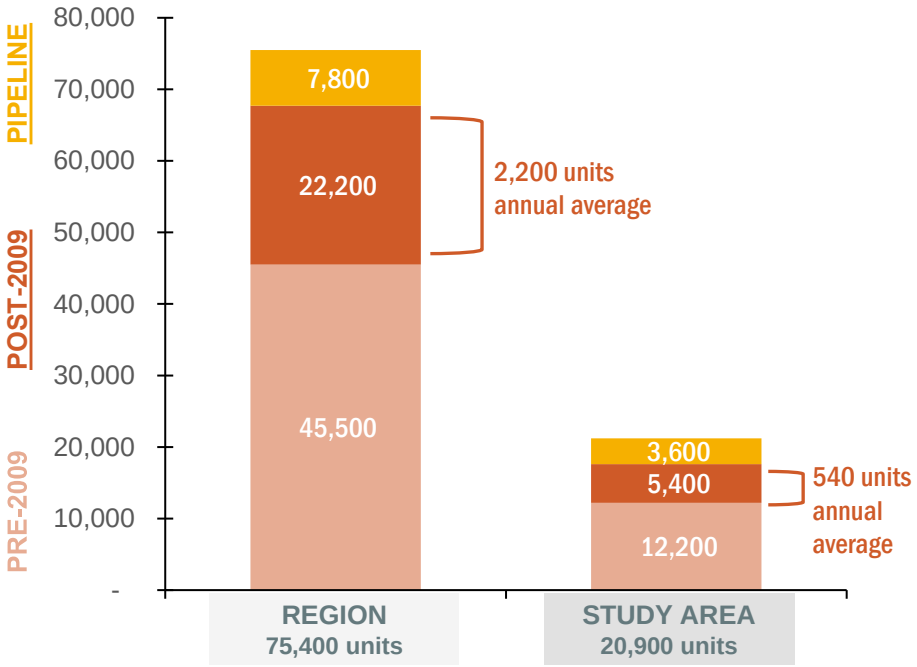
Source: ESRI, CoStar (data as of 08/2019), HDR, SB Friedman

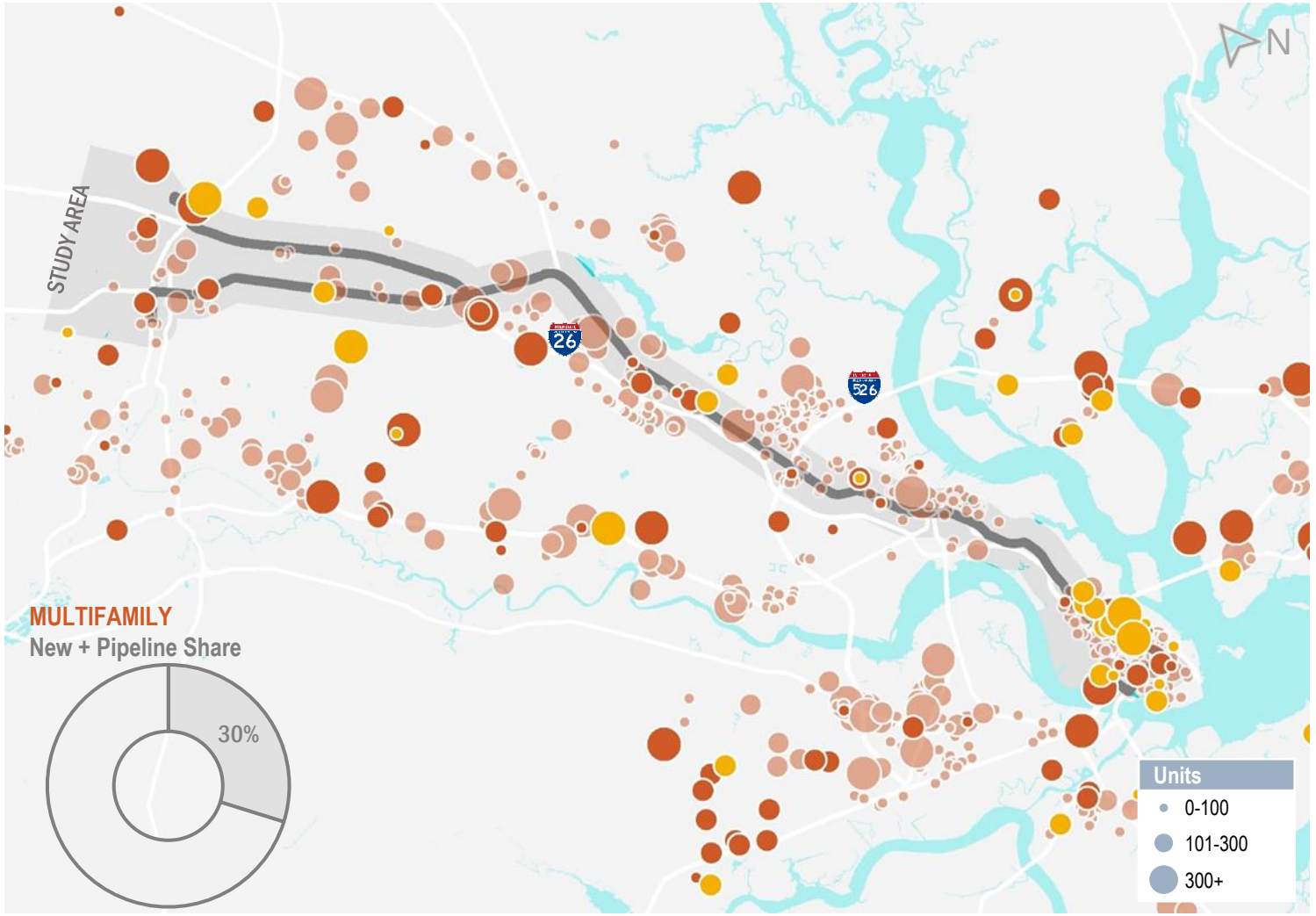
Residential – Multifamily Post-2009 & Pipeline[1]

Approximately 30% of multifamily post-2009 and pipeline development is in the Study Area

Residential pipeline development includes multifamily projects currently proposed or under construction in the region. There are 7,800 units in the pipeline regionwide, 3,600 of which are located within the Study Area.

Combining multifamily buildings built since 2009 and the pipeline inventory, 30% of the 'newer' product is located within the Study Area. The increasing share of development within the Study Area suggests that developers are capitalizing on the strong residential market within the Study Area.



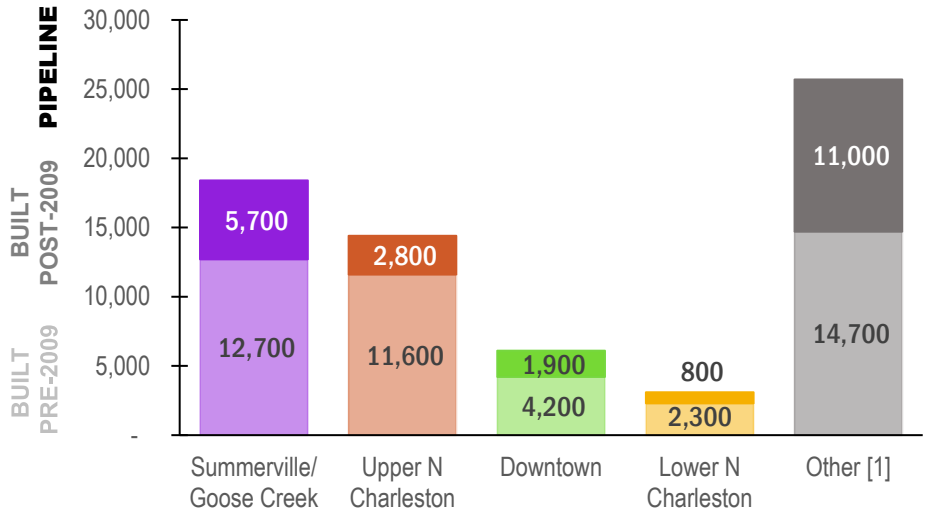


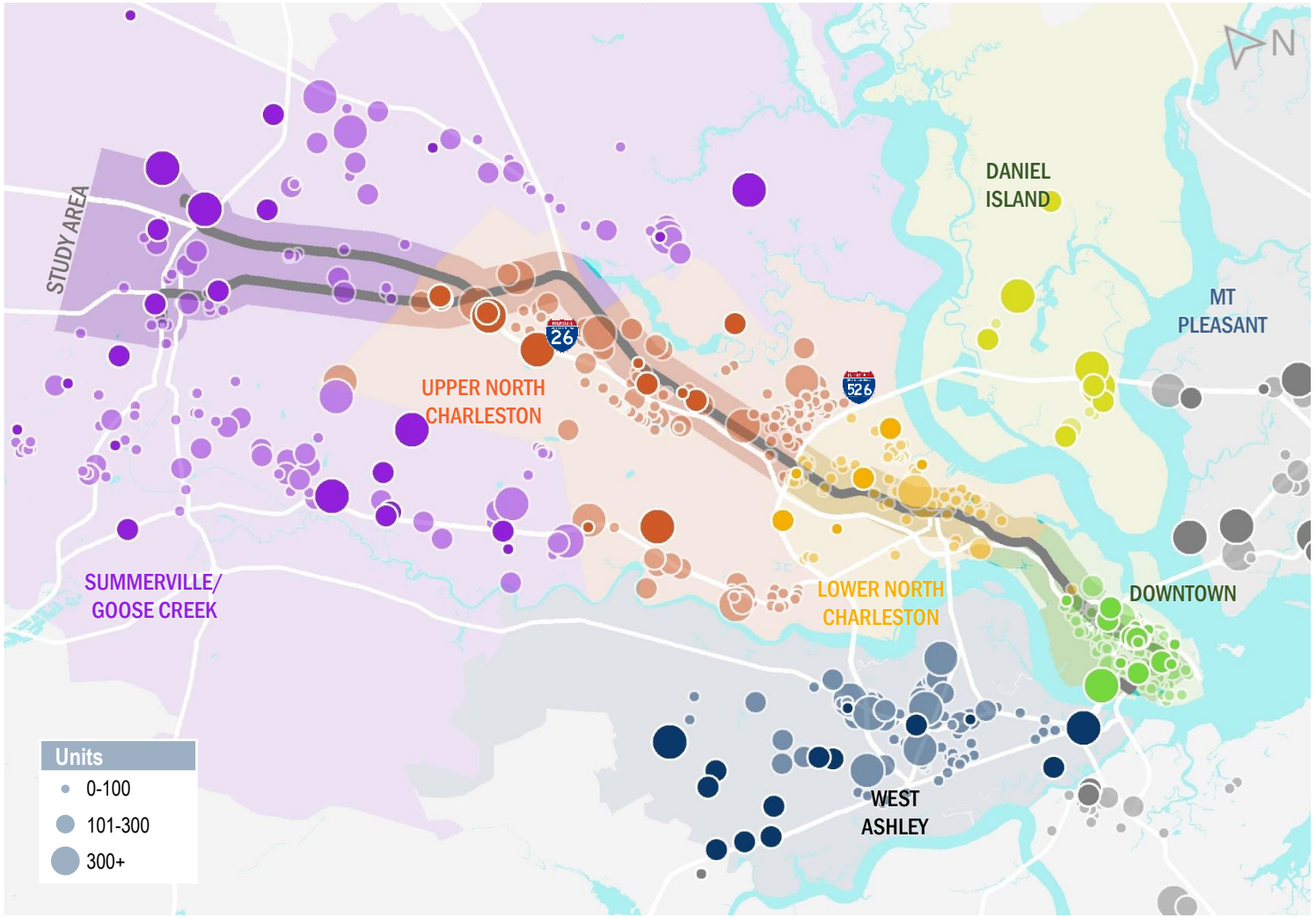
Source: ESRI, CoStar (data as of 08/2019), HDR, SB Friedman
[1]Pipeline is defined as under construction and proposed

Residential – Multifamily Submarket Existing Inventory

The Study Area overlaps four submarkets, all of which experienced recent development

There are four submarkets that overlap the Study Area. Submarkets include Summerville/Goose Creek, Upper North Charleston, Lower North Charleston and Downtown. The Summerville/Goose Creek submarket has the highest number of multifamily units amongst the four submarkets. Lower North Charleston has the least amount of multifamily units and only had 800 units delivered since 2009.





[1] "Other" includes properties within Daniel Island, West Ashley, and Mount Pleasant submarkets and along with additional properties not within regional extent

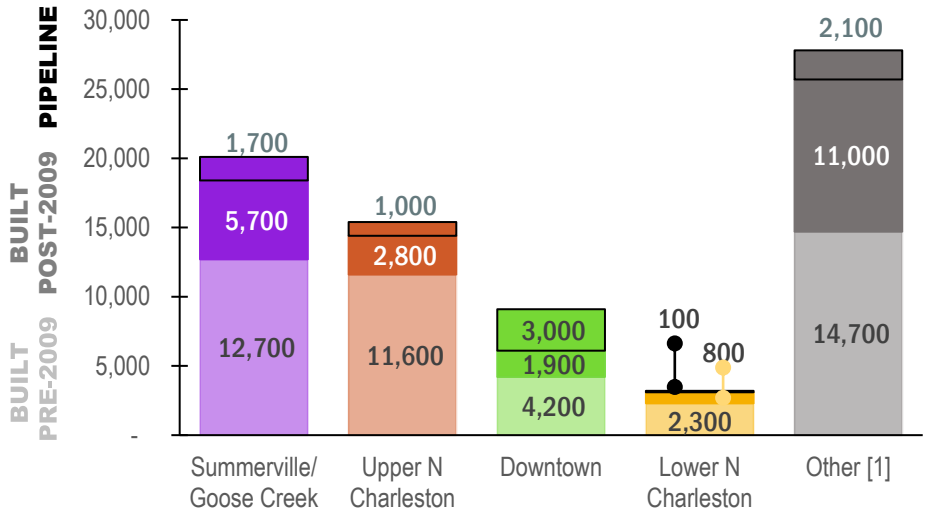
Source: ESRI, CoStar (data as of 08/2019), HDR, SB Friedman

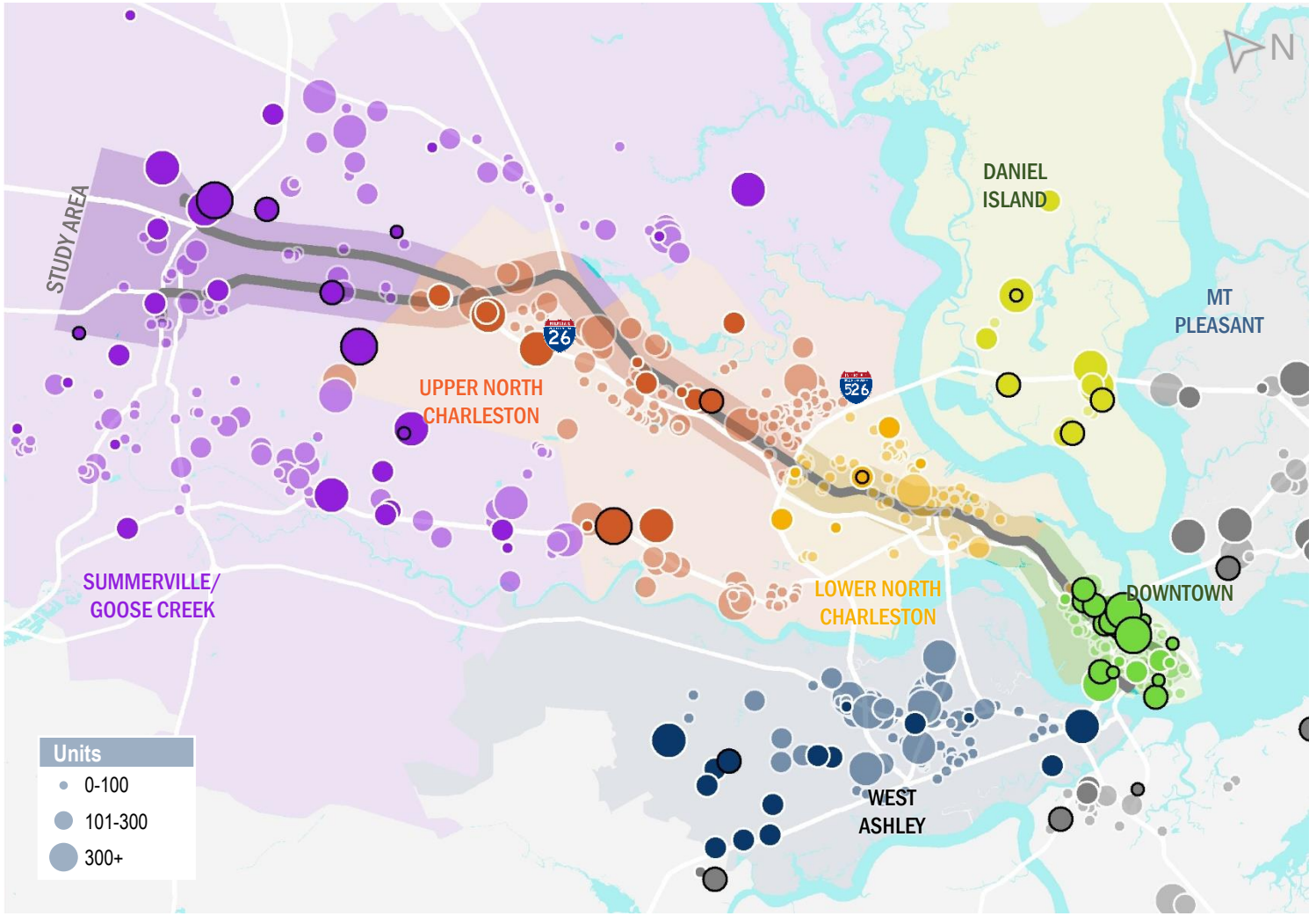
Residential – Multifamily Submarket Pipeline

The Downtown submarket has the most units in the pipeline (approximately 3,000)

Despite being the second smallest submarket, the Downtown submarket has the greatest number of units currently in the pipeline. The pipeline inventory includes large scale projects, but predominately consists of smaller projects across the Peninsula.

Pipeline unit totals in the Summerville/Goose Creek and Upper North Charleston submarkets are both smaller relative to the scale of the existing market inventory.





[1] "Other" includes properties within Daniel Island, West Ashley, and Mount Pleasant submarkets and along with additional properties not within regional extent

Source: ESRI, CoStar (data as of 08/2019), HDR, SB Friedman

Residential – New Multifamily by Submarket

Post-2009 development has been evenly distributed within the Corridor Study Area

Three of the four submarkets intersecting the Study Area have had over 1,500 units delivered since 2009. The total units built along the Study Area have historically been evenly distributed to all submarkets except Lower North Charleston, which is a predominately commercial area.

5,400 NEW UNITS IN THE CORRIDOR STUDY AREA SINCE 2009

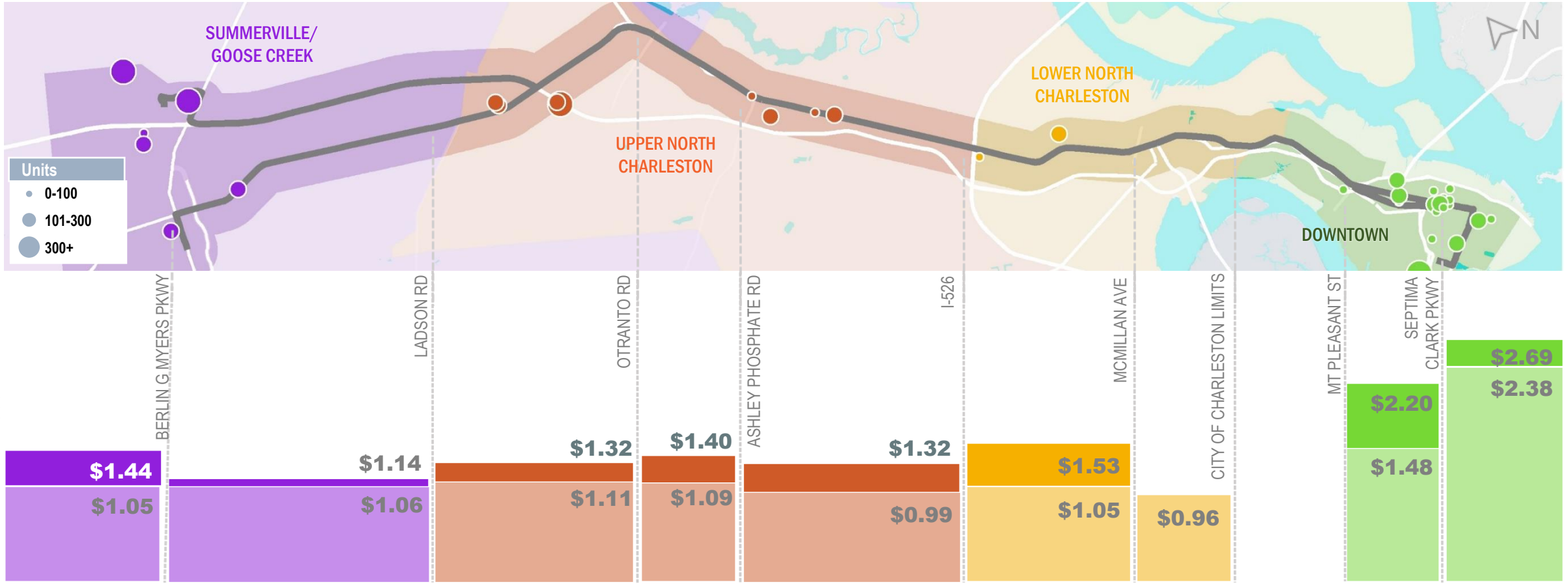
29%	31%	6%	34%
1,550 units	1,700 units	300 units	1,850 units

Source: ESRI, CoStar (data as of 08/2019), HDR, SB Friedman

Residential – Multifamily Rent by Submarket

New product downtown commands the highest rent, with a significant premium in the region

Rent varies across the Study Area by submarket, but Downtown product commands the highest rents on average. The average rent for new product Downtown ranges from $2.20-2.70 per square foot, versus $1.30-$1.50 per square foot across the remainder of the Corridor. New product in the emerging multifamily market in the Charleston Neck area (between Mount Pleasant and Septima Clark) commands a significant rent premium over pre-2009 product, with a $0.70 premium for new product.

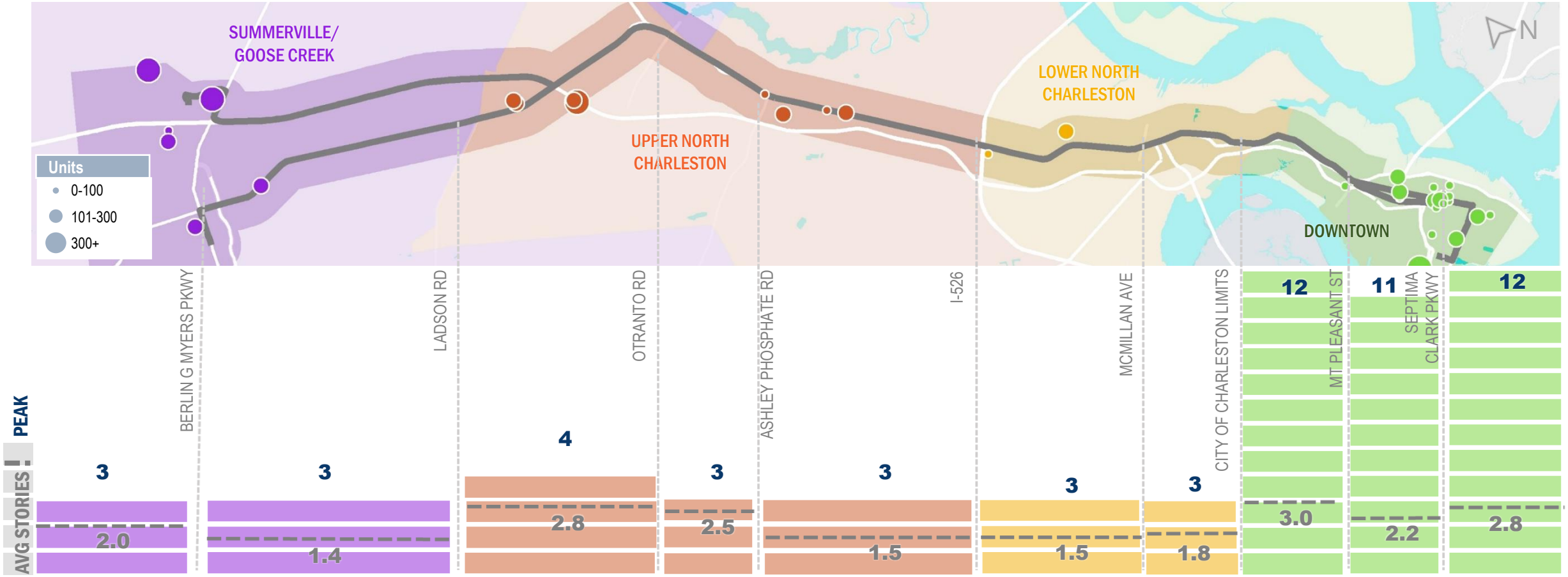


Source: ESRI, CoStar (data as of 08/2019), HDR, SB Friedman

Residential – Multifamily Stories by Submarket

The average multifamily building height in the Corridor ranges between 1.4 and 3.0 stories

The majority of buildings throughout the Study Area submarkets are low- to mid-density buildings, ranging from 1.5-3.0 stories on average. The only submarket with building heights in excess of 4 stories is Downtown Charleston. Each of the 3 Downtown submarket subdivisions include buildings with peak heights over 10 stories.



Source: ESRI, CoStar (data as of 08/2019), HDR, SB Friedman

Residential – Multifamily Sample Typologies

While projects vary in density, average total units per project range from 200-300

New multifamily developments vary in size across the region. Projects tend to include 200-300 units on average, irrespective of land density. The higher-density buildings is the only residential density typology in the region that includes structured parking. Most new construction apartment buildings in the region have at least 1.0 parking space per unit on site.

	BUILDING FORM	UNITS PER PROJECT	UNITS PER ACRE / STORIES	PARKING RATIO
LOWER-DENSITY		**250-300** units	**7-15** units/acre **2-3 stories**	**1.1-1.5** spaces/unit **Surface**
MID-DENSITY		**200-275** units	**17-35** units/acre **3-4 stories**	**0.5-1.5** spaces/unit **Surface**
HIGHER-DENSITY		**225-350** units	**75+** units/acre **6-12 stories**	**1.0-1.6** spaces/unit **Structured**

PROJECTS:
Lower-Density: Cypress River Apartments, 9325 Blue House Rd (Upper North Charleston)
Mid-Density: Atlantic on the Avenue, 6880 Rivers Ave (Lower North Charleston)
Higher-Density: The Guild, 128 Columbus St (Downtown)

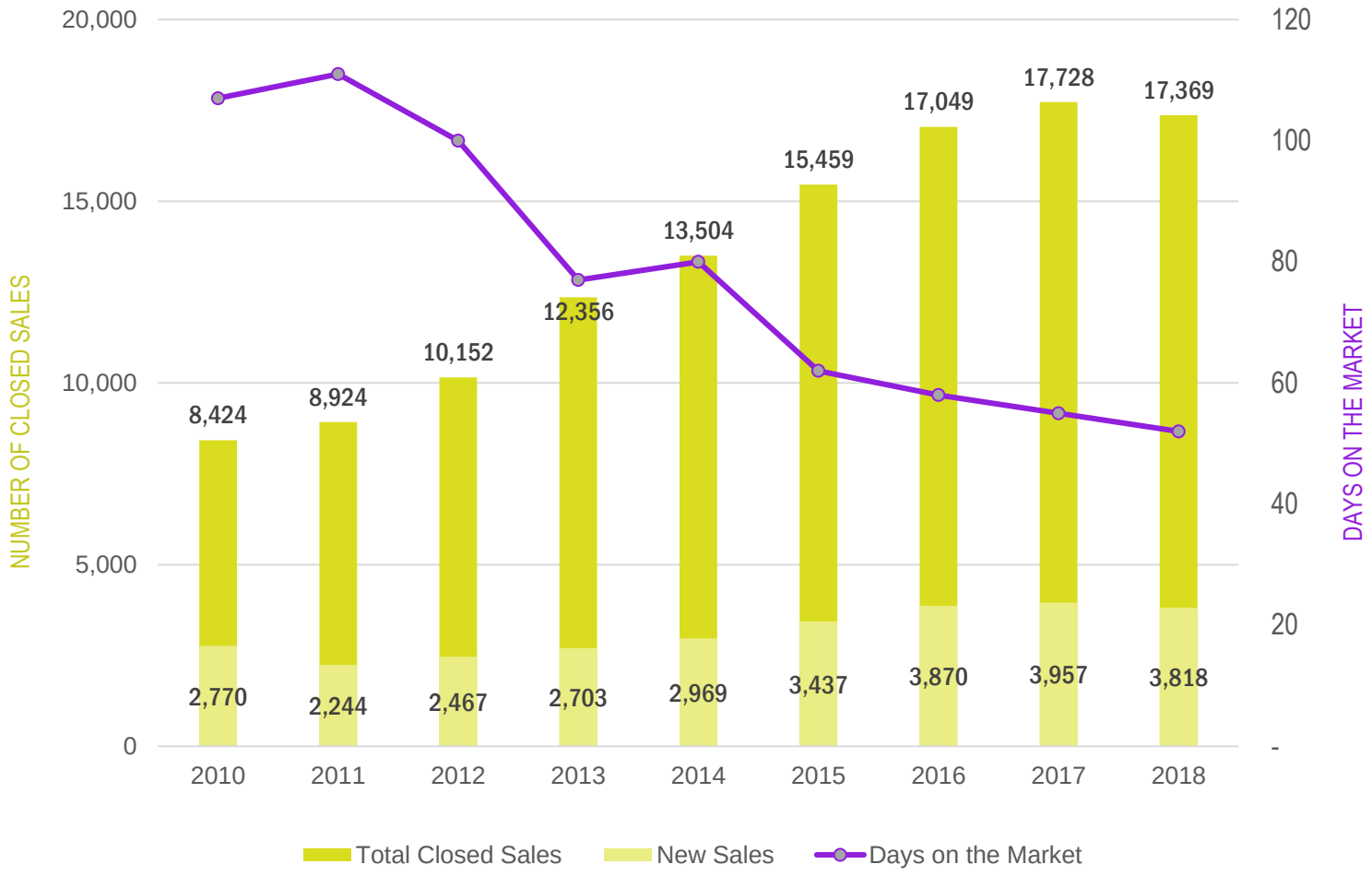
Source: CoStar (data as of 08/2019), SB Friedman

Residential – Owner-Occupied Historic Sales

The number of home sales increased over the last 10 years, while the days on the market decreased

The number of residential sales increased annually from 2010 to 2017. Over the same period, the average number of days a home was listed on the market prior to sale decreased annually; from approximately 100 days in 2010 to 50 days in 2018.

The highly fluid market is indicative of an increasingly strong for-sale market.

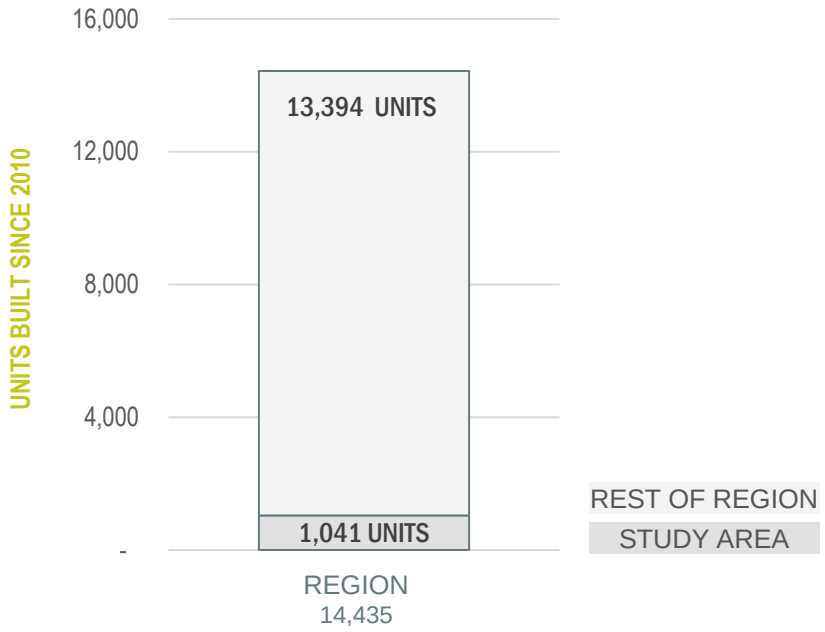


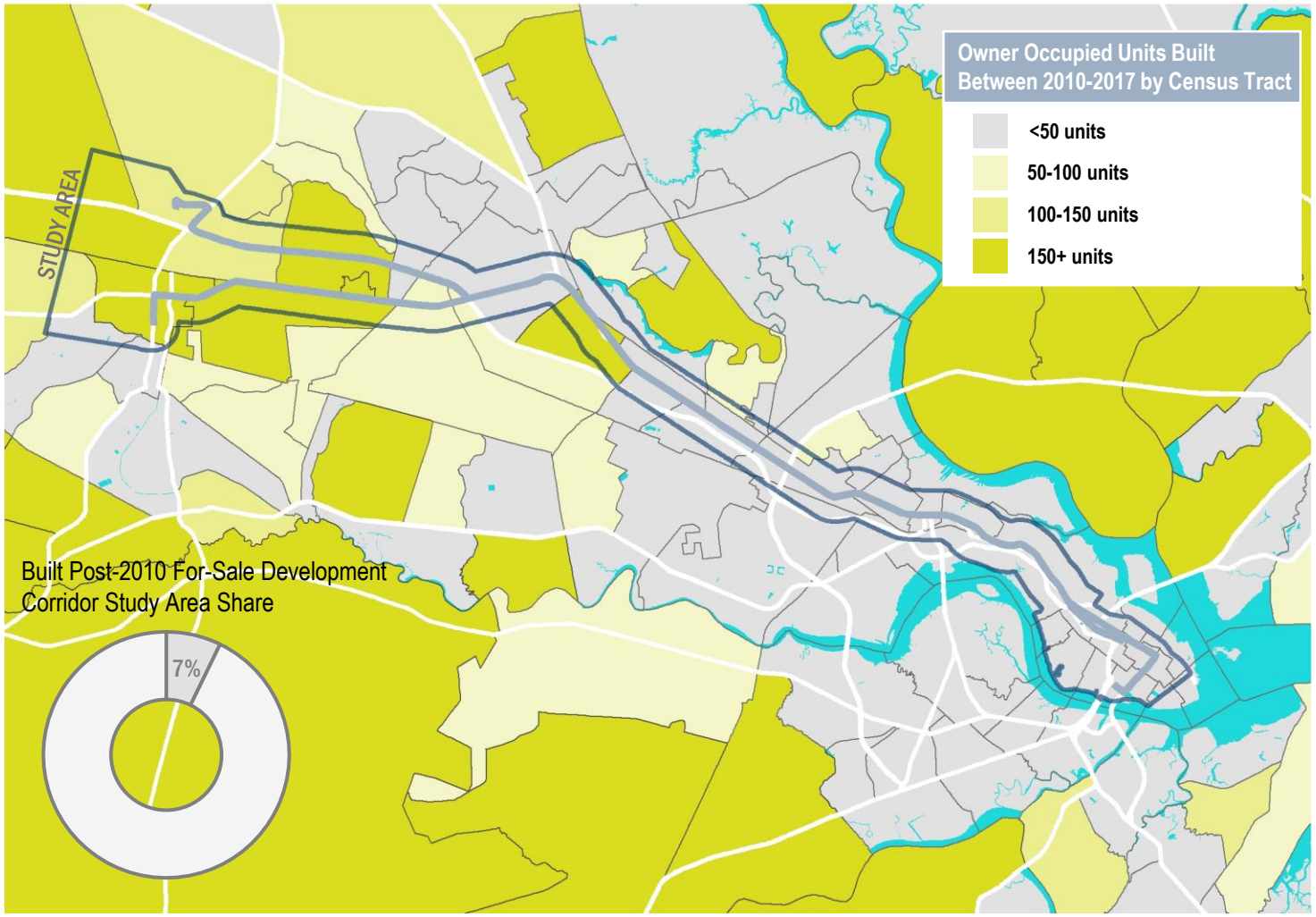
Source: Charleston Trident Association of REALTORS, SB Friedman

Residential – For-Sale Development Trends

Majority of for-sale development is happening outside the corridor

The majority of single family development intersecting the Study Area occurred near Summerville in larger planned subdivisions such as Nexton and Hunter's Bend. The highest growth areas of for-sale residential are outside the Study Area, which has accommodated 93% of all for-sale residential growth from 2010-2017.





Source: American Community Survey 5-Year Estimates, SB Friedman

Residential – Supply Takeaways

Existing residential construction and performance is indicative of a strong market

SHARE

25-30% MF | 7% SF
of new inventory in the region is in the Corridor Study Area

DELIVERIES

500
average annual multifamily new deliveries in the Corridor since 2009, with 3,500 units in the pipeline; the vast majority of single-family deliveries are outside the Corridor

RENT

$1.30 - $2.70
rent per square foot for new construction in the region, with highest downtown

SCALE

200 - 350
units per project in recent deliveries, ranging from 2-12 stories

Residential – Demand Considerations

Residential demand projections are based on four key data assumptions, including:

1. Household Change by Age – Projections of future population growth by age cohort provided by the BCDCOG
2. Homeownership Rates – Historic household preference and shifting demand patterns for for-sale and rental product
3. Mobility Rates – The likelihood of a household (by age and income) to move on an annual basis; as household movers drive demand in the market
4. Preference for New Construction – Historic preference for new construction housing amongst movers, by residential product type

Each of the core assumptions were incorporated into an SB Friedman housing model projecting residential demand by product type.

DEMAND CONSIDERATIONS

Households Change by Age

Homeownership Rate

Mobility Rates

Preference for New Construction

Residential – Household Change and Preference

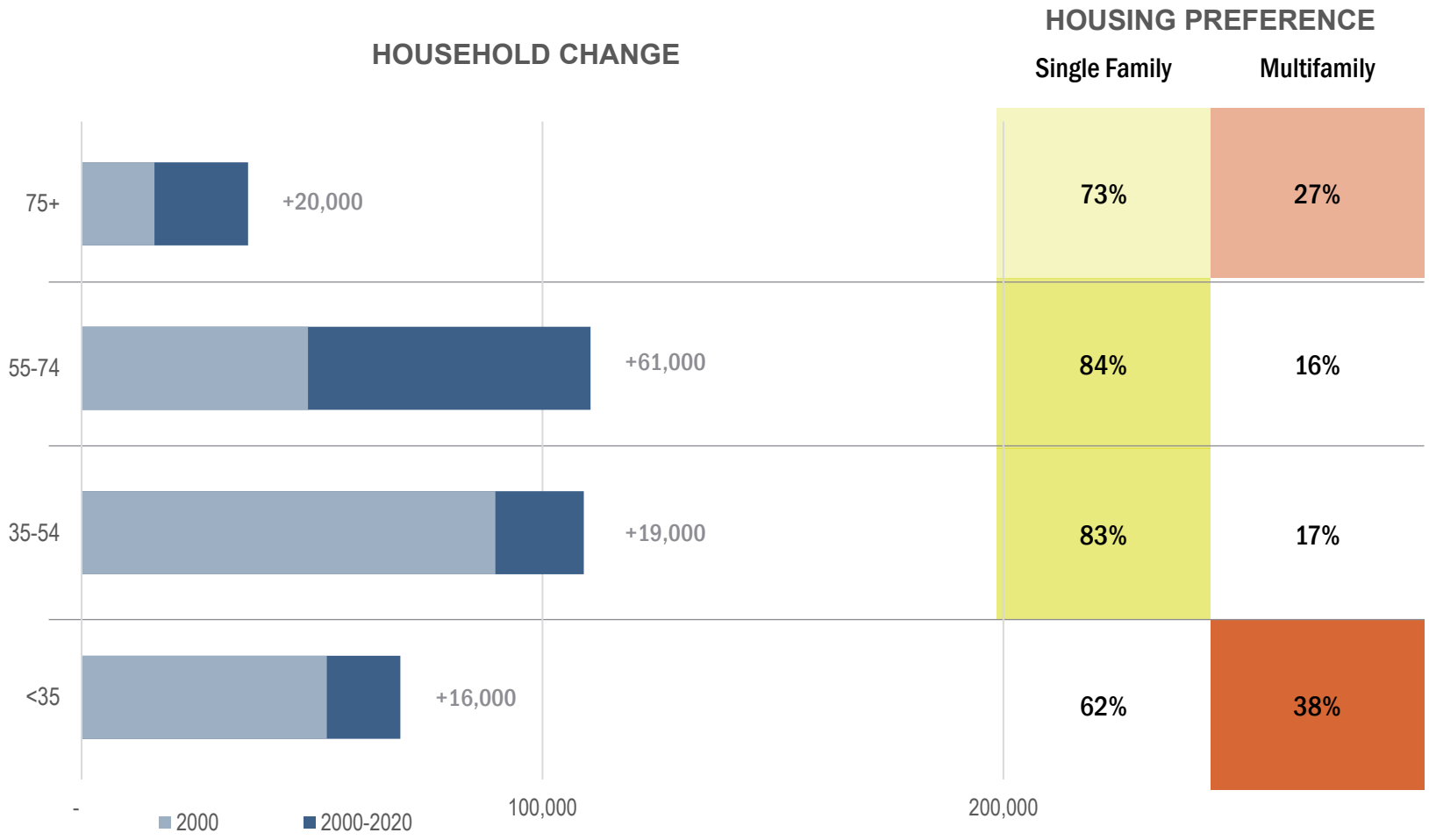
The BCD region increased by over 115,000 households between 2000 and 2020

The BCD region experienced significant growth between 2000 and 2020. According to Census data, the number of households 55 and up doubled over the analysis period.

Households ages 35-54 accounted for the greatest share of the population in 2000, but only saw a modest increase of 19,000 households over the 20 years.

The majority of households across all age cohorts lives in single family homes as opposed to multifamily buildings.

Households under 35 historically had the highest preference for choosing multifamily housing typologies (e.g. condos or apartments) when moving to new construction, with 38% of mover households choosing multifamily housing. Seniors (ages 75+) had the next highest likelihood of choosing multifamily, with 27% of households historically moving to new construction multifamily rental product.



Source: Census, American Community Survey 5-Year Estimates; SB Friedman

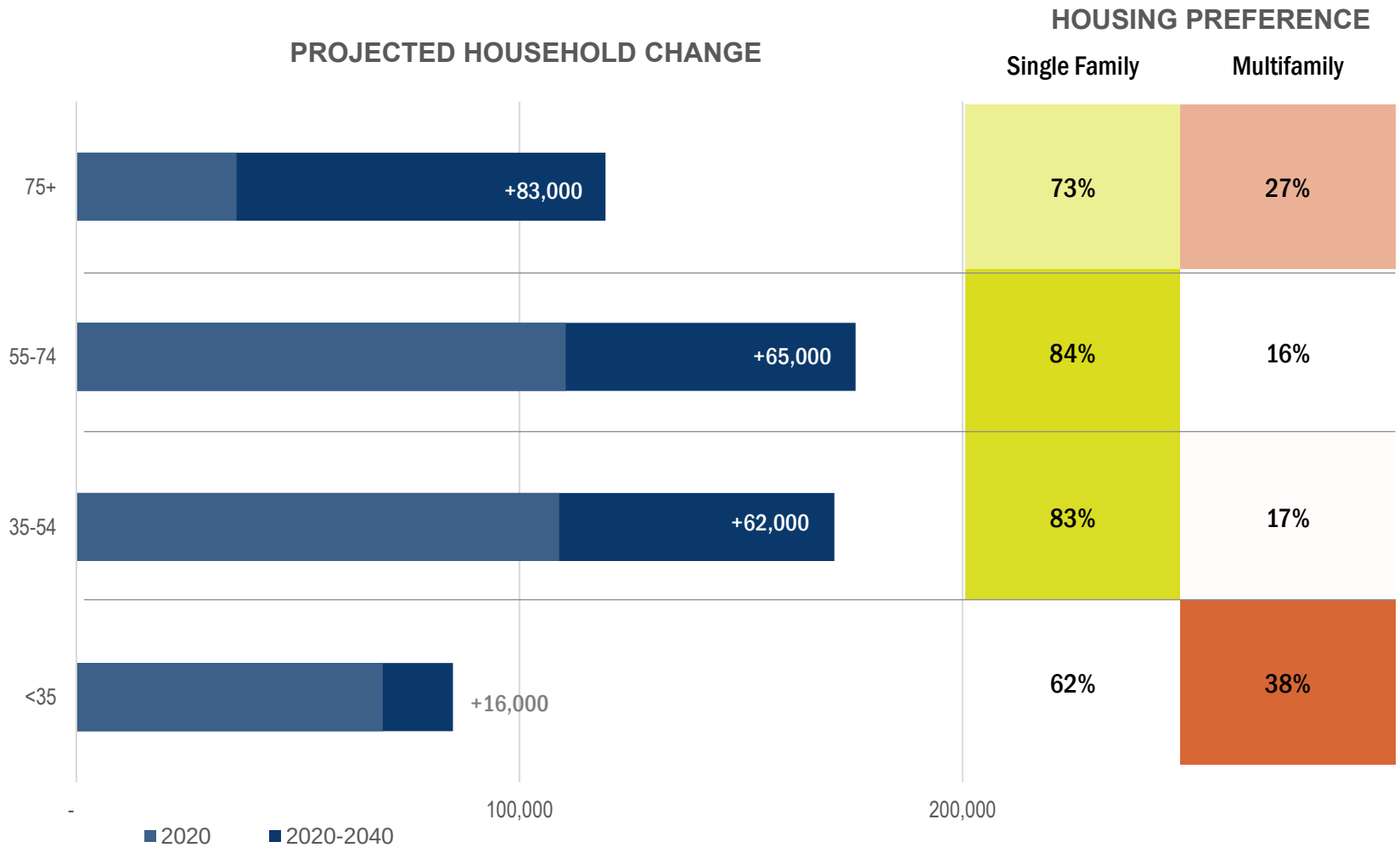
Residential – Household Change and Preference

The BCD region is projected to increase by over 225,000 households by 2040

BCDCOG projections for 2040 indicate a combined increase of approximately 227,000 households. The most growth is projected in households over 75. The number of households within the age cohort is anticipated to triple between 2020 and 2040.

The least amount of growth rate is projected for the Under 35 age cohort, which is expected to increase by 16,000 households over the 20-year period.

Review of growth patterns by age cohort is indicative of continued strength in the for-sale development market; as older age cohorts have a higher tendency to choose for-sale product in the region.



Source: BCDCOG, Census, American Community Survey 5-Year Estimates; SB Friedman

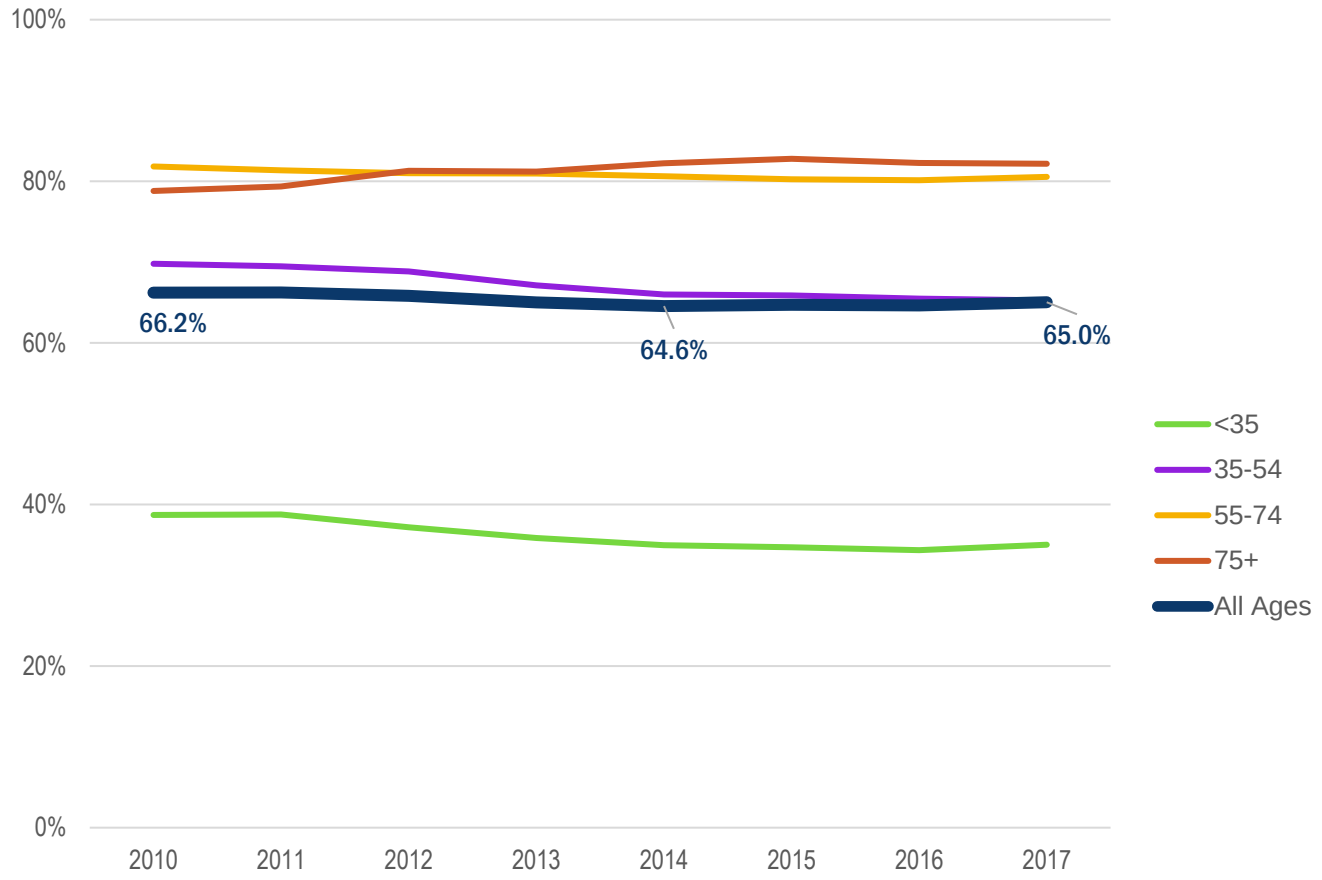
Residential – Homeownership Rate Trends in Region

Millennials in the Young Adults cohort continue to own homes at a declining rate

The average homeownership rate across all age cohorts in the BCD region is 65%. Similar to the preference for multifamily housing typologies, the Under 35 age cohort has the lowest homeownership rate of all age cohorts.

Less than 40% of households Under 35 live in owner-occupied housing. The rate of households living in renter occupied housing increased from 2010 through 2015 for the Under 35 cohort. However, the rate has stabilized over the last 3 years.

The homeownership rate for age cohorts over 35 has fluctuated since 2010, however the composite rate has consistently ranged from 64.6-65.0% of all households living in owner-occupied housing.



Source: American Community Survey 5-Year Estimates; SB Friedman

Residential – Percent of Households that Moved by Tenure

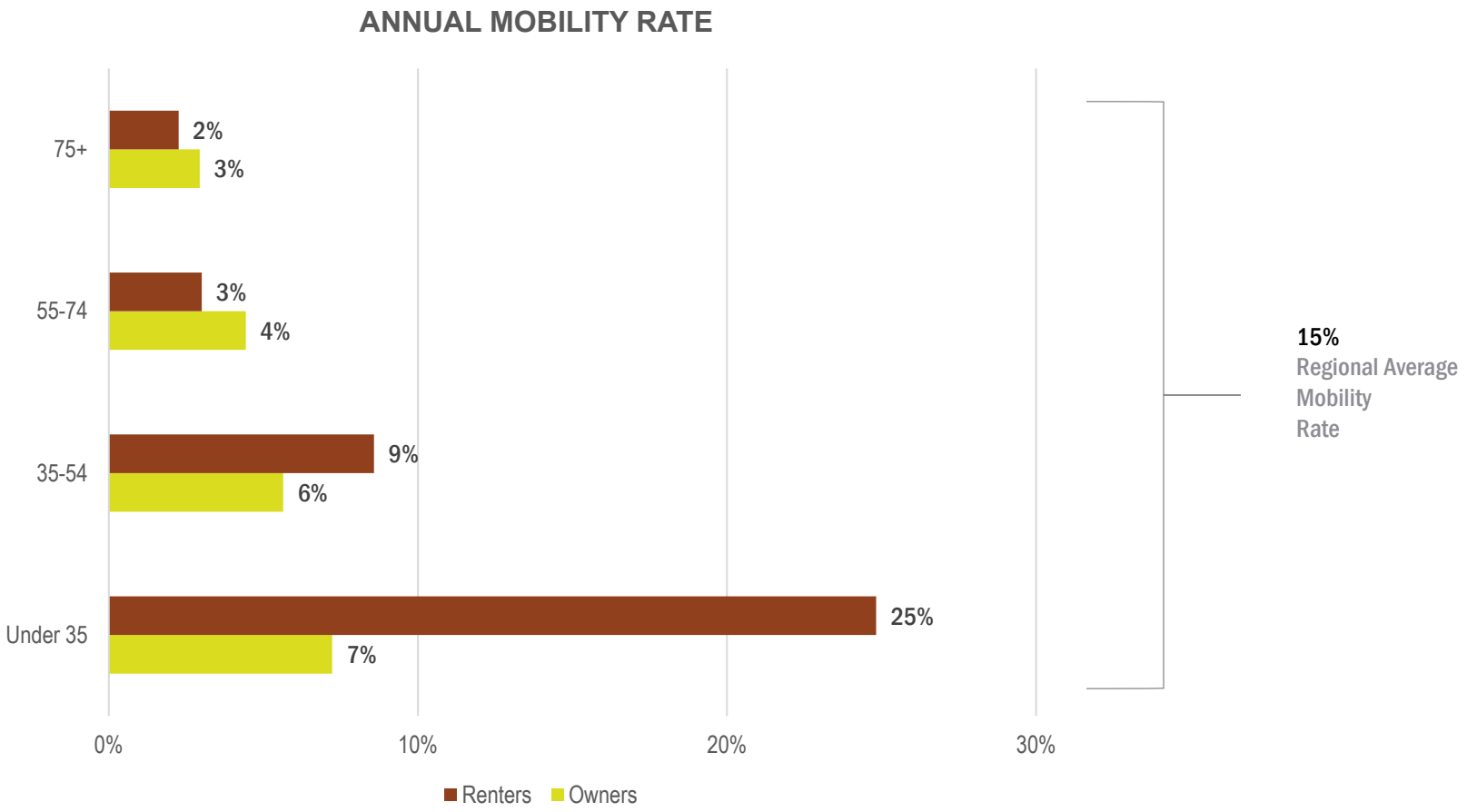
Household mobility is highest for renters and the Young Adults cohort

On average 15% of the total households moved annually, based on 2013-2017 5-Year Census data. However, mobility rates varied significantly by age and tenure.

The annual mobility rate was generally highest for renters and households in the Under 35 cohort. Nearly 25% of all households Under 35 who rent move on an annual basis. The likelihood to move on an annual basis decreases with age.

The mobility rate accounts for new households migrating into the region, formation of new households (e.g. a young professional moving out their parents' home) or existing households in the region changing the housing they live in. Each year these movers add to the demand for both existing and new construction housing.

Over time, the annual mobility rate is anticipated to increase as the population grows. Household growth that occurs as a result of faster than historic growth rates will result in an increased mobility rate; as additional movers are projected to enter the market.



Source: Costar (data as of 08/2019); PUMS analysis of Census American Community Survey 2013-2017 Data; SB Friedman

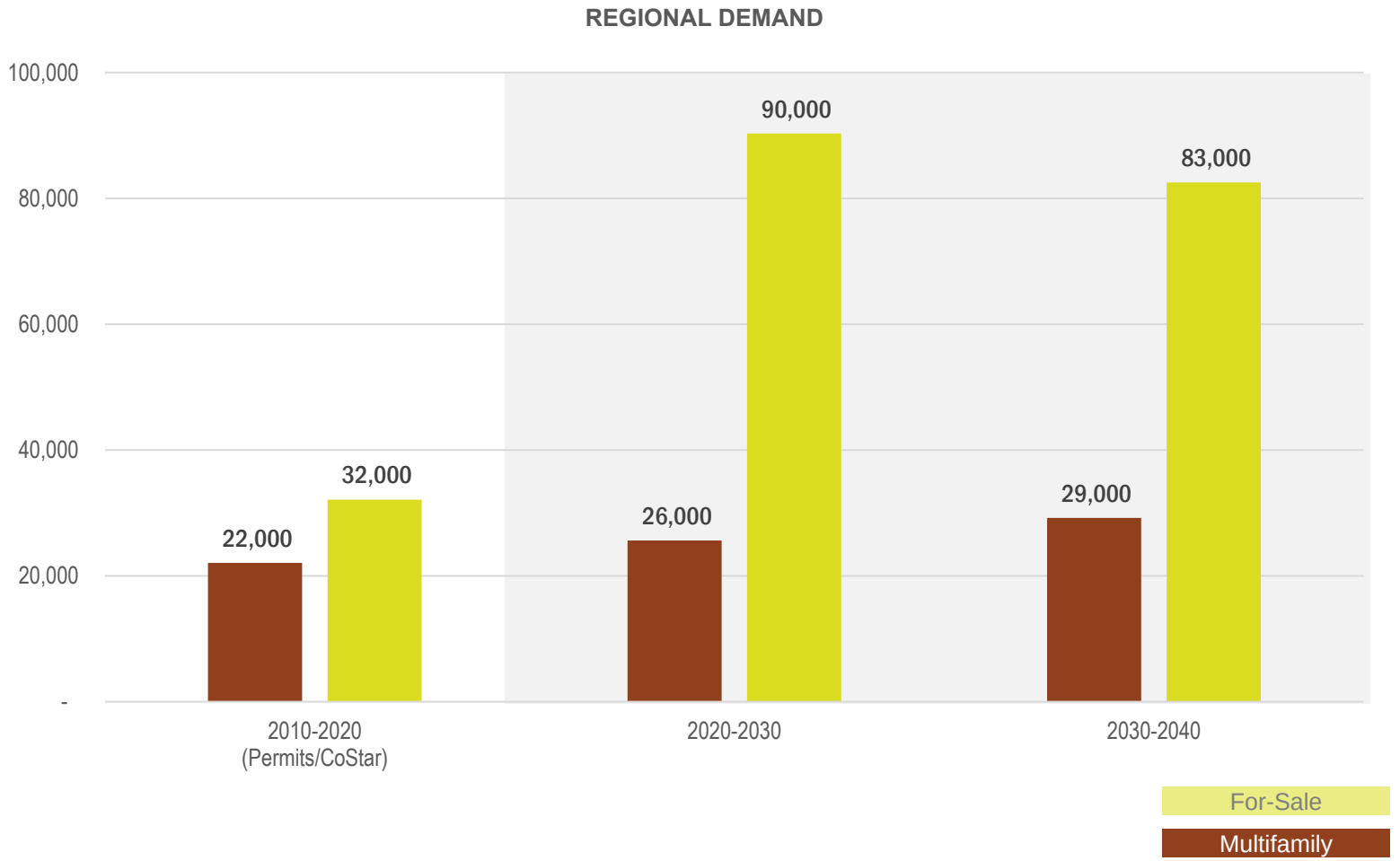
Residential – Regional Demand Projections

The Lowcountry is projected to have an increase in 228,000 residential units by 2040

SB Friedman projects demand for 228,000 residential units within the BCD region by 2040. New units are predominately projected to be single-family homes based on the existing homeownership rates and recent preferences for new for-sale construction.

The Study Area is more conducive to multifamily units, which are projected to increase by approximately 55,000 units between 2020 and 2040.

Projected residential demand far exceeds the historic 10-year actual development pattern of for-sale housing; as projections are driven by the BCDCOG population forecast estimates which assume a significant uptick in the rate of household growth over the next 20 years.



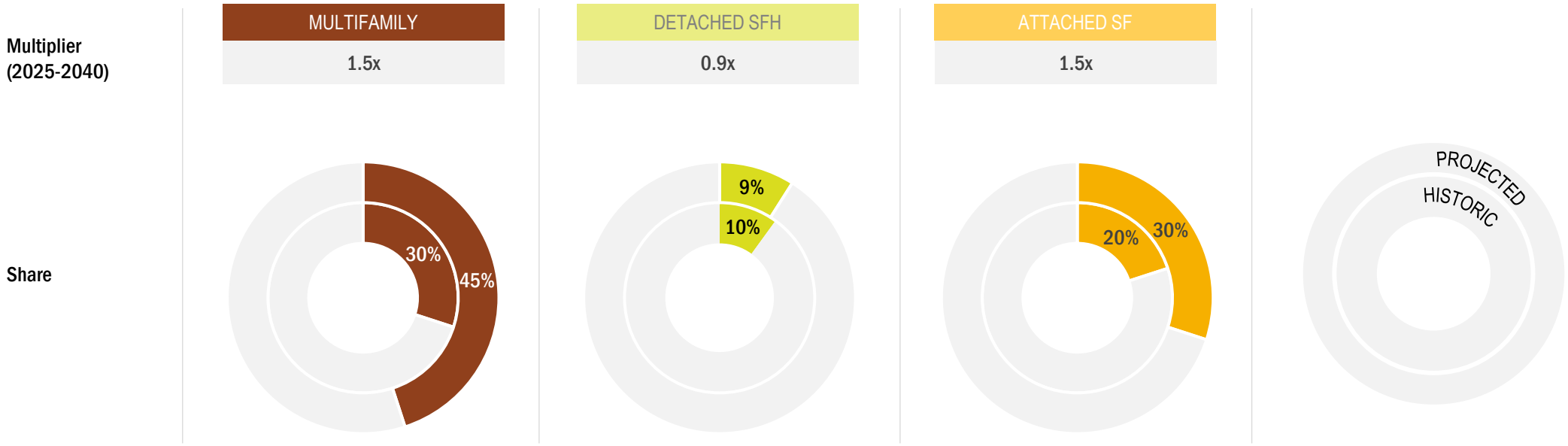
Source: SB Friedman

Residential – Projected Corridor Capture

Study Area capture of dense residential development is projected to increase after LCRT

To project the Study Area capture for different residential product types, SB Friedman analyzed the historic capture rates and then applied a BRT multiplier specific to each product type. More dense product types (e.g. multifamily and attached single family) capture rates are projected to have a BRT multiplier of 1.5x, or a 50% increase in the historic capture rate of new product.

The capture of detached single family units within the Study Area is anticipated to decline, as the market is projected to respond to BRT with higher density construction along the Study Area.



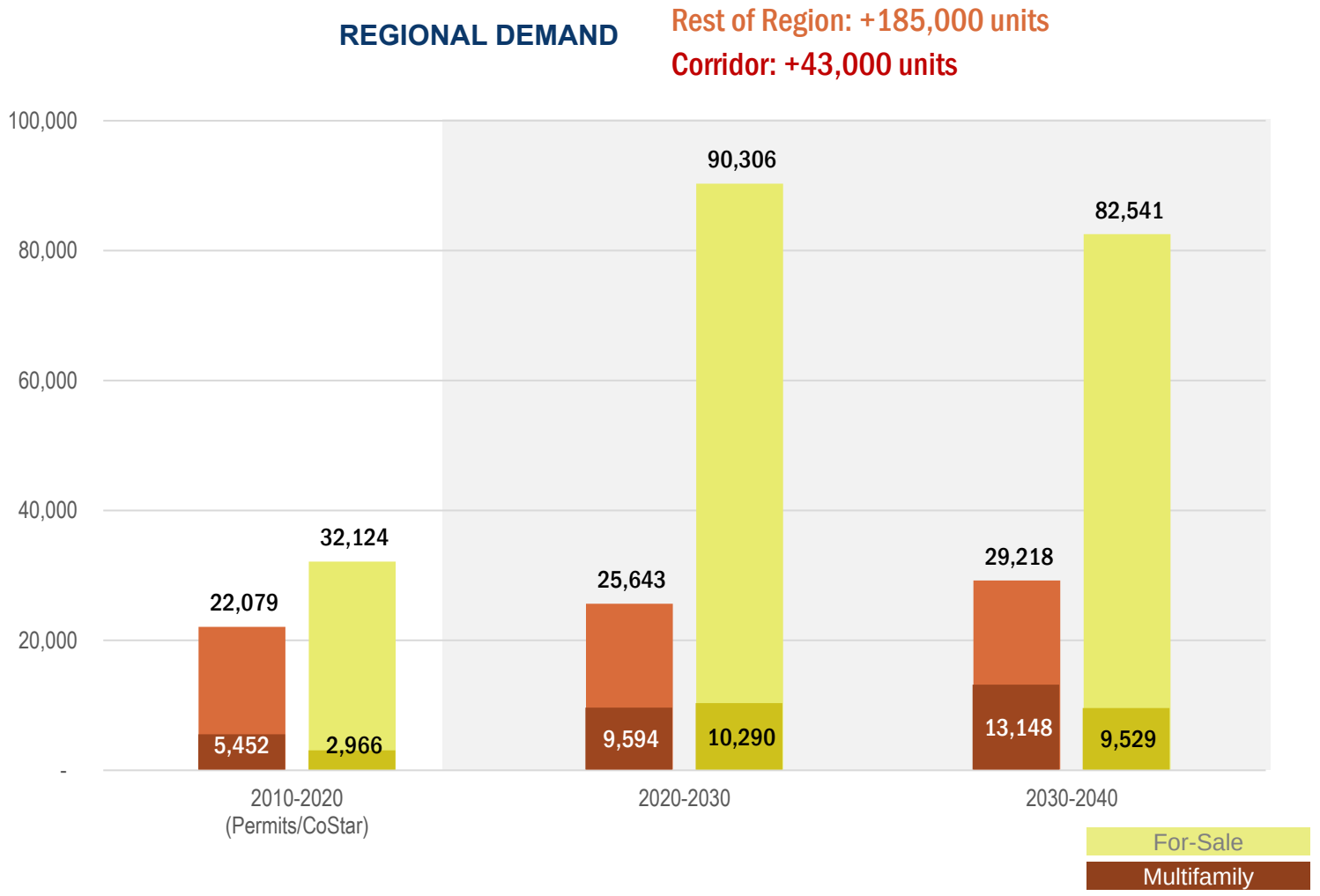
Source: CoStar (data as of 08/2019); American Community Survey; SB Friedman

Residential – Corridor Demand Capture

The Corridor is projected to capture 23% of the combined regional residential growth

Applying the capture rates by housing product, SB Friedman projects demand for a combined 43,000 residential units within the Study Area between 2020 and 2040.

The remaining demand of 185,000 units is projected to develop outside the Study Area, elsewhere in the BCD region.

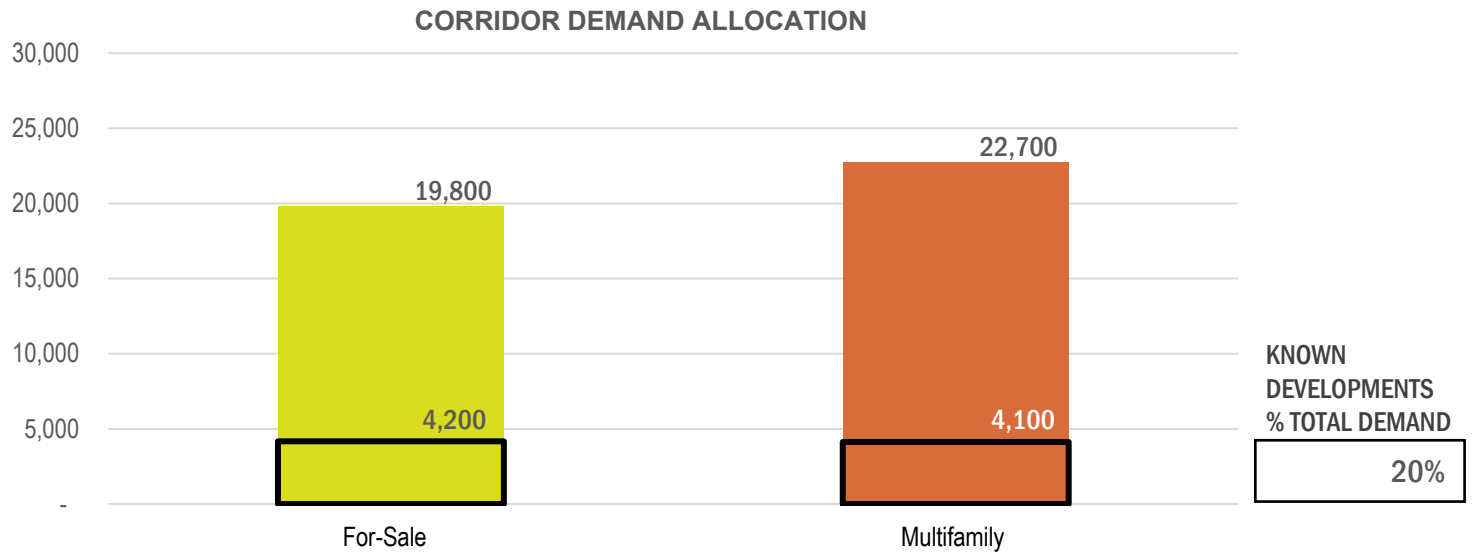


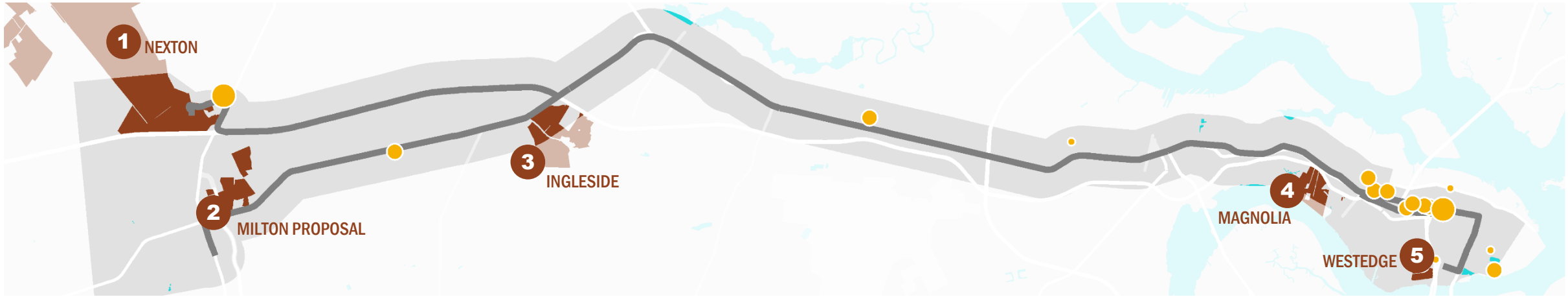
Source: Census Public-Use Microdata; SB Friedman

Residential – Demand Projections

Known Development Sites will absorb 20% of projected demand

There are several ‘Known Developments’ that overlap the LCRT Study Area. Those developments, combined with projects currently listed as under construction or proposed in CoStar account for 8,300 units of the projected 20-year demand; or 20% of the total demand. The remaining demand is unallocated demand that will occur elsewhere in the Study Area.





Source: Census Public Use Microdata; CoStar (data as of 08/2019); SB Friedman

Retail

RETAIL TRENDS | BCD REGION EXISTING INVENTORY | NEW DEVELOPMENT | TRADE AREAS

Retail – Typologies

Retail can generally be classified into three categories

Retail clusters can be broadly typologized into three major categories: Downtown Retail, Regional Retail, and Neighborhood/Strip Retail. Typologies vary by total square footage, number of anchors, diversity of retail types, and the size of the trade area that the retailers serve.

REGIONAL DEMAND

LOCAL DEMAND

DOWNTOWN/ MAIN STREET

- Mixed-use
- Ground-floor retail
- Walkable pedestrian environment

SIZE VARIES

REGIONAL RETAIL

REGIONAL OR SUPER-REGIONAL MALL

- Anchored by 2+ full-line department stores

~500,000-1,000,000+ SF

LIFESTYLE CENTER

- Upscale national-chain specialty stores
- Dining and entertainment focused

~250,000-500,000 SF

POWER CENTER

- 2+ category-dominant freestanding anchors of ~100,000+ SF
- General merchandise, home improvement

~250,000-750,00 SF

NEIGHBORHOOD / STRIP RETAIL

COMMUNITY CENTER

- 1+ category-dominant freestanding anchors of ~100,000+ SF

OR

- 1+ grocer anchors of ~50,000+ SF and additional category dominant retailers

~100,000-250,000 SF

- 1+ grocer anchors of ~50,000 SF +
- Additional supporting retail

~75,000- 150,000 SF

- Small convenience center with goods and services
- Limited trade area

~5,000- 150,000 SF

Retail – Typologies

The following are examples of each of the primary retail categories from the Lowcountry

The BCD region includes examples of each major retail typology. Downtown Retail is present on a large scale on the peninsula, but also in smaller nodes including Daniel Island and Summerville. Regional Retail centers attract shoppers from a broad trade area with local examples including Azalea Square and the Northwoods Mall. Small Neighborhood Retail centers such as Otranto Plaza are scattered through the region and are typically anchored by a grocery.

REGIONAL RETAIL
Azalea Square

DOWNTOWN RETAIL
Downtown Charleston

MAIN STREET RETAIL
Daniel Island

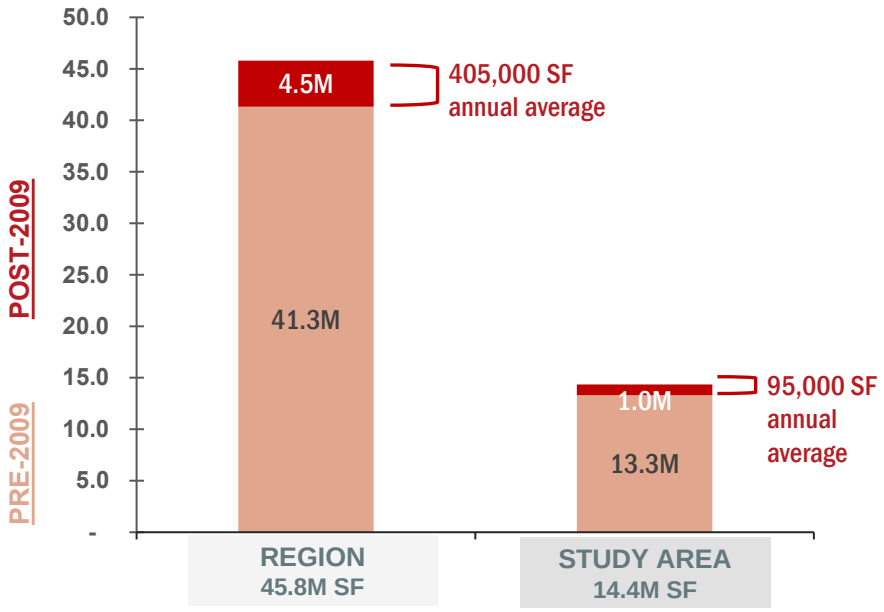
NEIGHBORHOOD RETAIL
Otranto Plaza

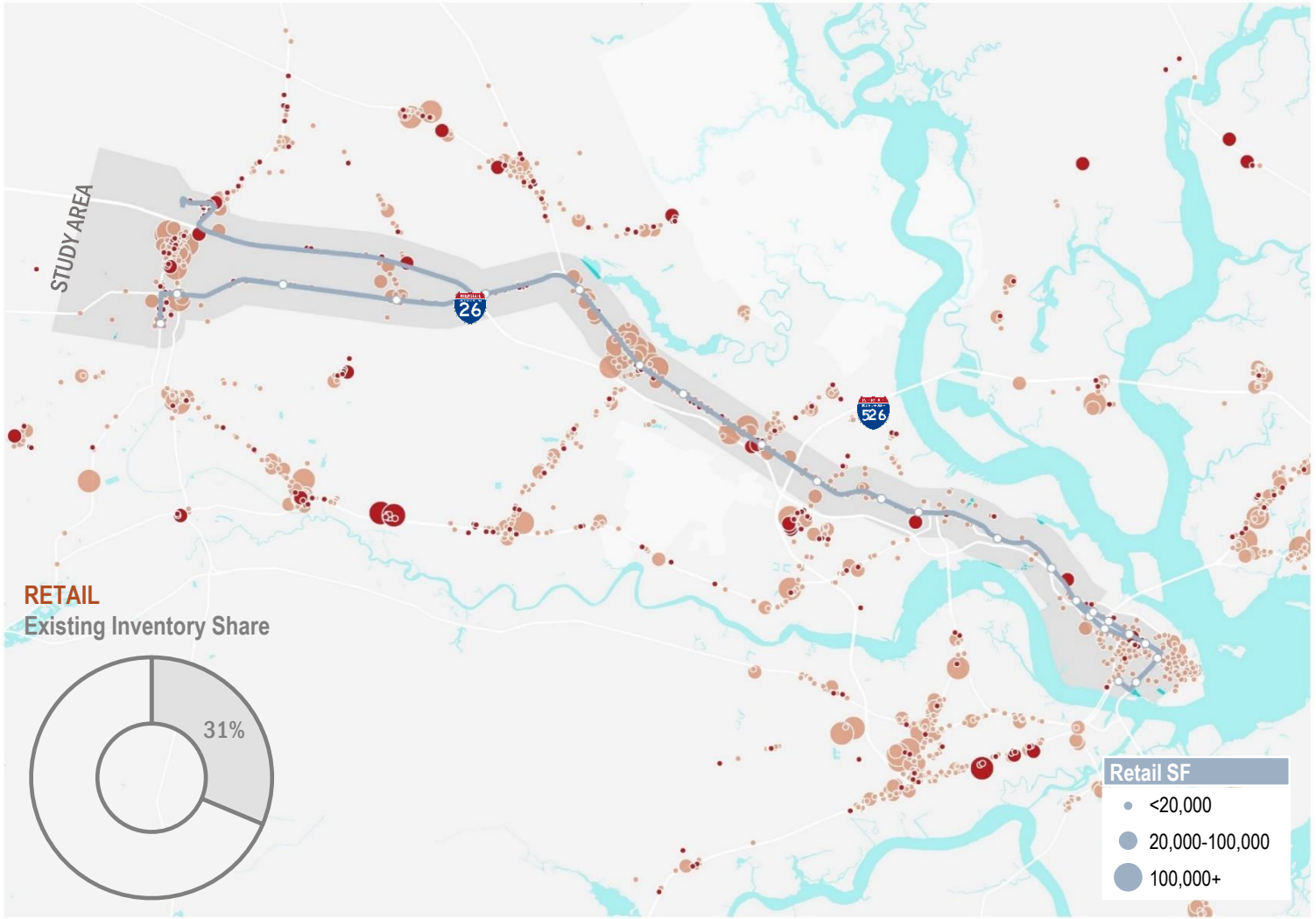
Retail – Existing Inventory

31% of existing regional retail inventory is within the Corridor Study Area

The region has about 45.8 million square feet of existing retail, approximately 14.4 million square feet of which is located within the Study Area; or 31% of the regional inventory.

On average, the region has added 405,000 square feet of retail annually since 2010; 95,000 square feet within the Corridor Study Area.



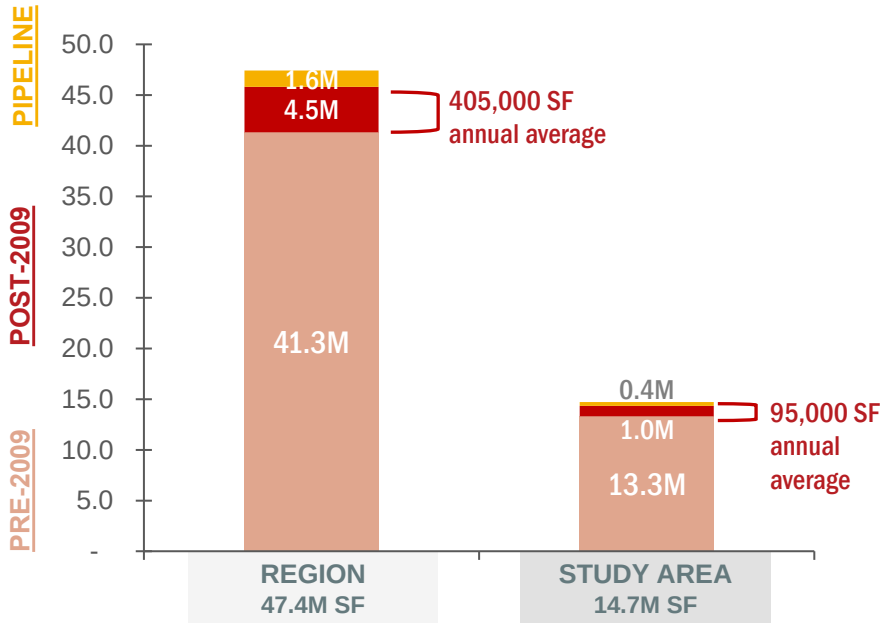


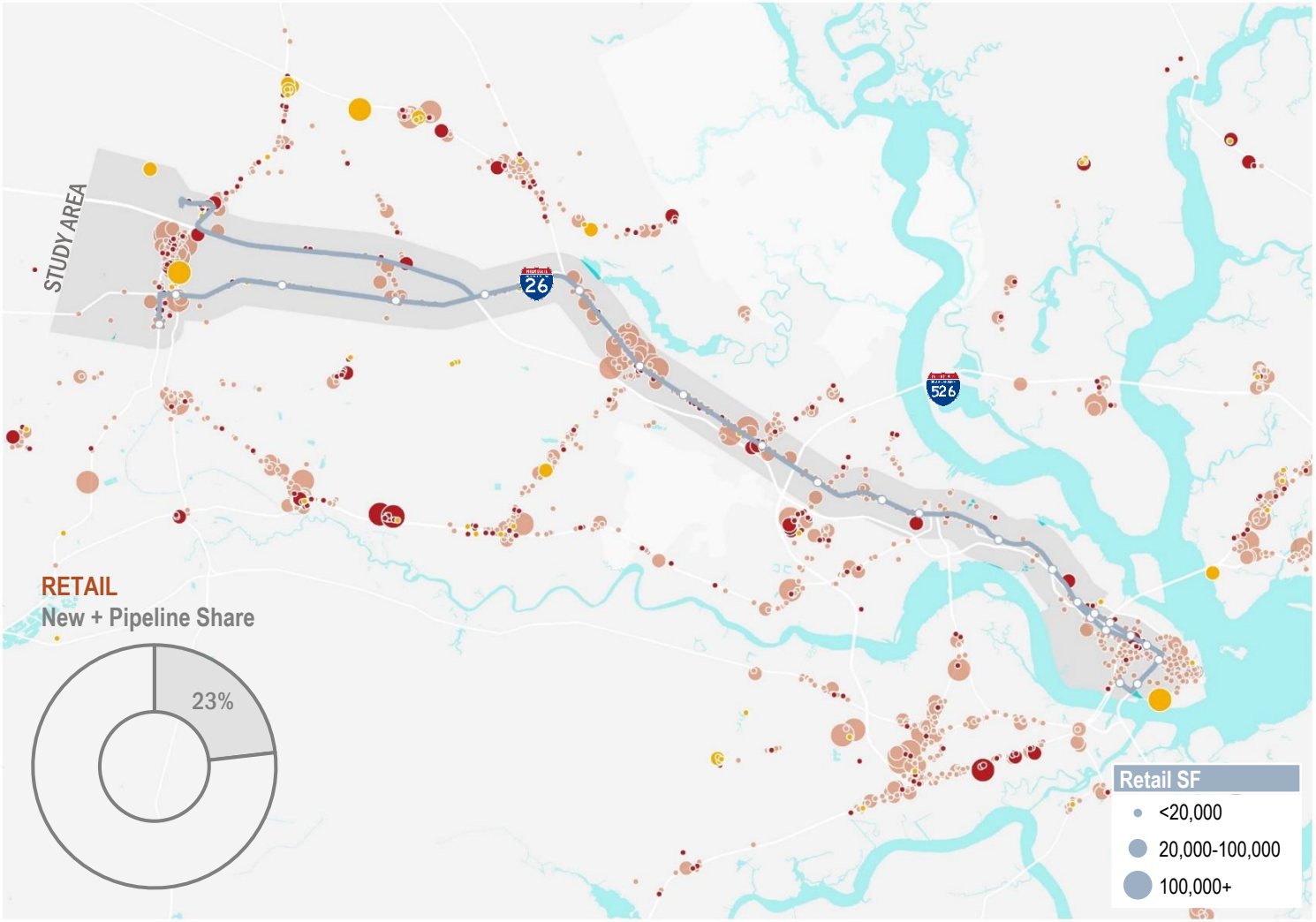
Source: CoStar (data as of 09/2019), ESRI, HDR, SB Friedman

Retail – Post-2009 & Pipeline

The Corridor captured a lower share of the retail built since 2009 than the historic average

Regionwide, about 1.6 million square feet of retail space is planned or under construction, 400,000 square feet within the Corridor Study Area. A significant portion of the region-wide pipeline retail is located near recently developed residential areas on the region periphery. As a result, the Corridor Study Area capture rate for new and pipeline product is less than the share of all retail inventory, 23% and 31% respectively.





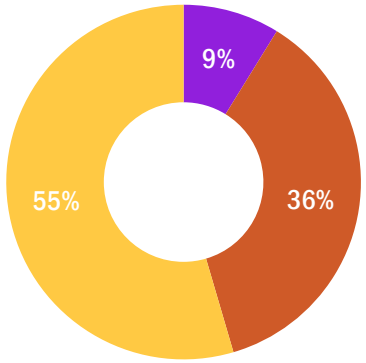
Source: CoStar (data as of 09/2019), ESRI, HDR, SB Friedman

Retail – Typologies

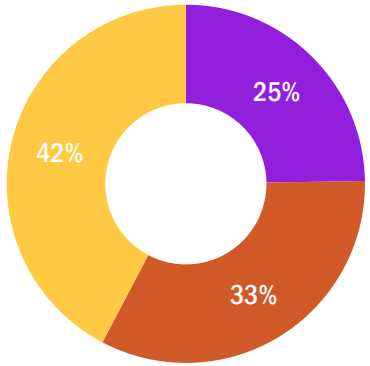
A higher proportion of Study Area retail is downtown retail, relative to the region

25% of all retail space within the Corridor Study Area can be typologized as within a Downtown Retail cluster, compared to just 9% throughout the entire BCD Region.

REGIONAL RETAIL BY TYPOLOGY



CORRIDOR STUDY AREA RETAIL BY TYPOLOGY



Source: CoStar (data as of 09/2019), ESRI, HDR, SB Friedman

Retail – Mixed-Use

While most retail in the Corridor is low-density, mixed-use exists in the downtown centers

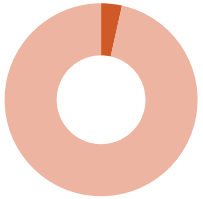
Mixed-use retail is often more walkable and a higher density than auto-oriented retail typologies. In order to maximize the benefit of transit, adding density around station areas through mixed-use higher density development is a priority. Mixed-use development around station areas would build on the current concentration of Downtown Retail already in the Study Area; the typology with the highest concentration of mixed-use.

DOWNTOWN / MAIN ST RETAIL

51% MIXED-USE

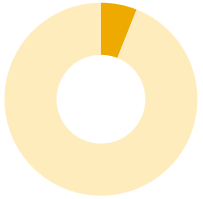
REGIONAL RETAIL CLUSTERS

3% MIXED-USE



NEIGHBORHOOD / STRIP RETAIL

6% MIXED-USE



JOHNNIE DODDS BLVD, MT. PLEASANT

SHUCKER CIRCLE, MT. PLEASANT

REYNOLDS PLAZA, NORTH CHARLESTON

THE GUILD, DOWNTOWN

Source: CoStar (data as of 09/2019), Google Maps, SB Friedman

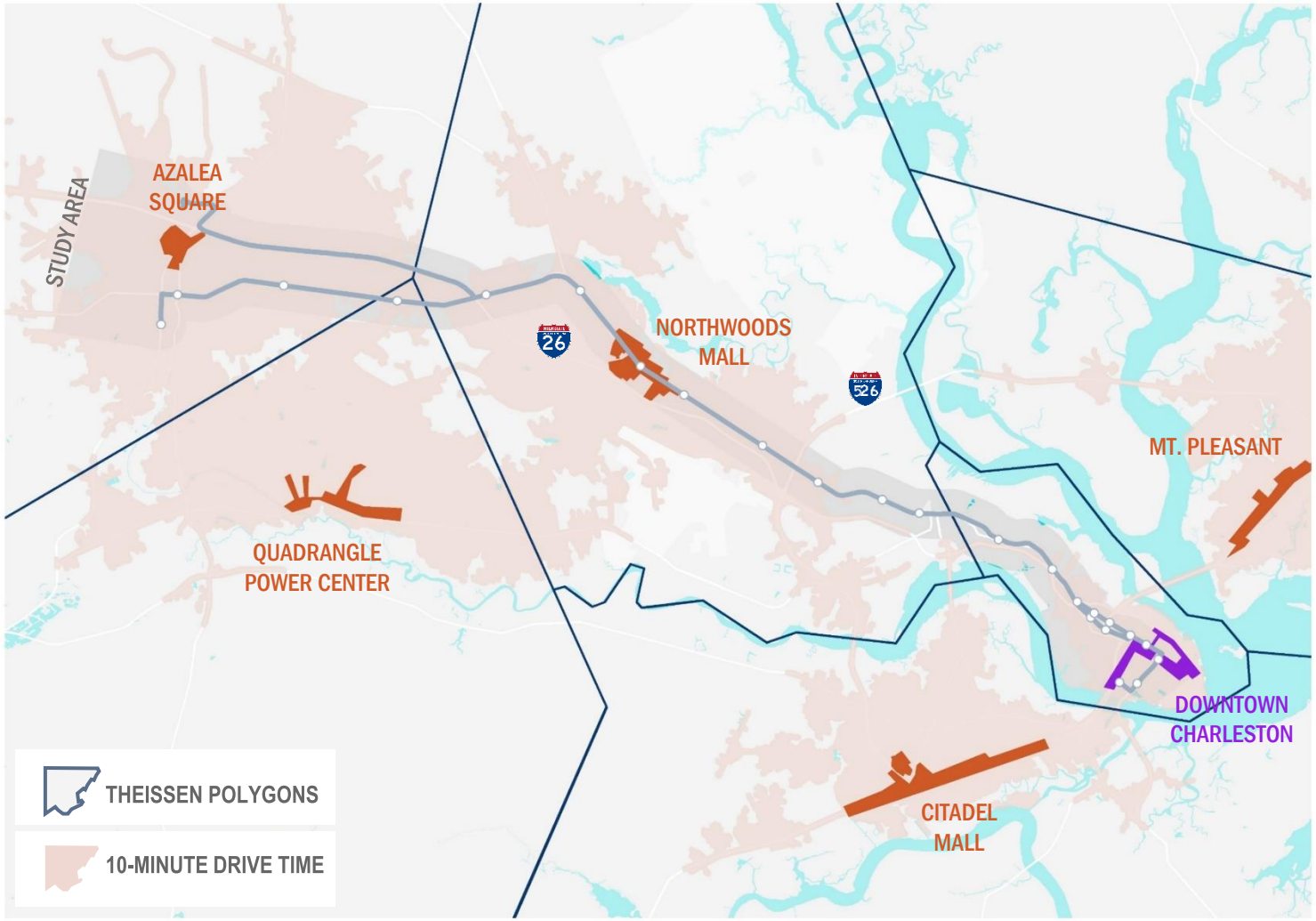
Retail – Regional Trade Areas

Regional trade areas vary in size, composition and overall performance

Of all existing retail clusters within the region, six can be considered regional retail centers based on total square footage, breadth of retail offerings, and the size of the market from which they attract customers. Each of the regional retail centers can be assessed and evaluated based on its regional trade area.

Regional trade areas are estimated based on:

- Competitive supply and the regional structure of existing power centers
- The existing transportation network and typical 10-minute drive times from the power centers
- Lines of equidistance between the centroid of the cluster ("Thiessen polygons") such as the



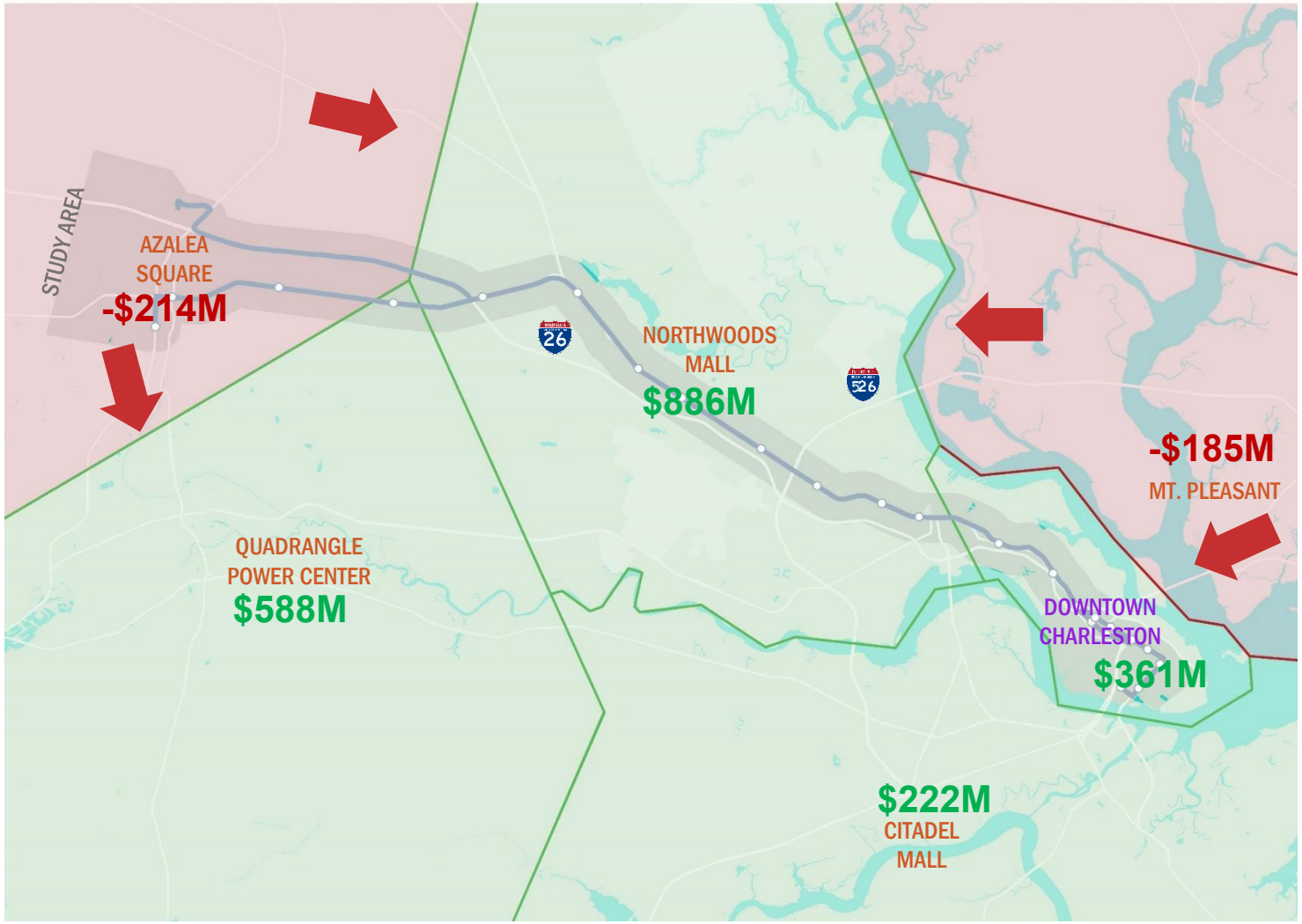
Source: CoStar (data as of 09/2019), ESRI, HDR, SB Friedman

Retail – Regional Demand

Centrally located trade areas capture excess demand from Azalea Square and Mt. Pleasant

Regional trade areas can be analyzed based on their sales leakage, which is expressed as total retail sales (supply) that occur within a trade area minus the total consumer buying power (demand) that exists within the trade area. Trade areas with excess supply have more retail sales than buying power, suggesting that residents of neighboring trade areas are traveling across trade area boundaries to fulfill retail needs. Trade areas with excess demand are typically under-supplied in retail.

Trade areas with excess demand in the region include Azalea Square and Mount Pleasant, both of which are on the regional periphery, suggesting that residents in these trade areas are traveling to central shopping centers such as Northwoods Mall to fulfill some of their retail needs. The sales leakage indicates there may be pent up demand for new retail development in periphery power centers that have experienced significant residential development in the last 10 years (e.g. Azalea Square).



Source: CoStar (data as of 09/2019), ESRI, HDR, SB Friedman

Retail – Supply Takeaways

The Study Area has the highest potential to capture mixed-use and Downtown Retail

SHARE

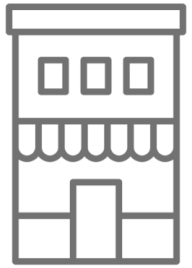
31%
of existing retail square footage is within the Corridor Study Area, but a significant share of pipeline development is occurring in the region periphery

DELIVERIES

95K SF
of retail delivered within the Corridor Study Area annually since 2009

TYPOLOGY

THREE
regional retail centers intersect the Corridor Study Area, the remainder of the retail is smaller scale



MIXED-USE

40-50%
capture of mixed-use retail development is within the Study Area, the rate increasing over the last 5 years

Retail – Demand Considerations

Demand projections for retail account for five key factors, which account for both drivers and limitations to the retail demand potential in the region:

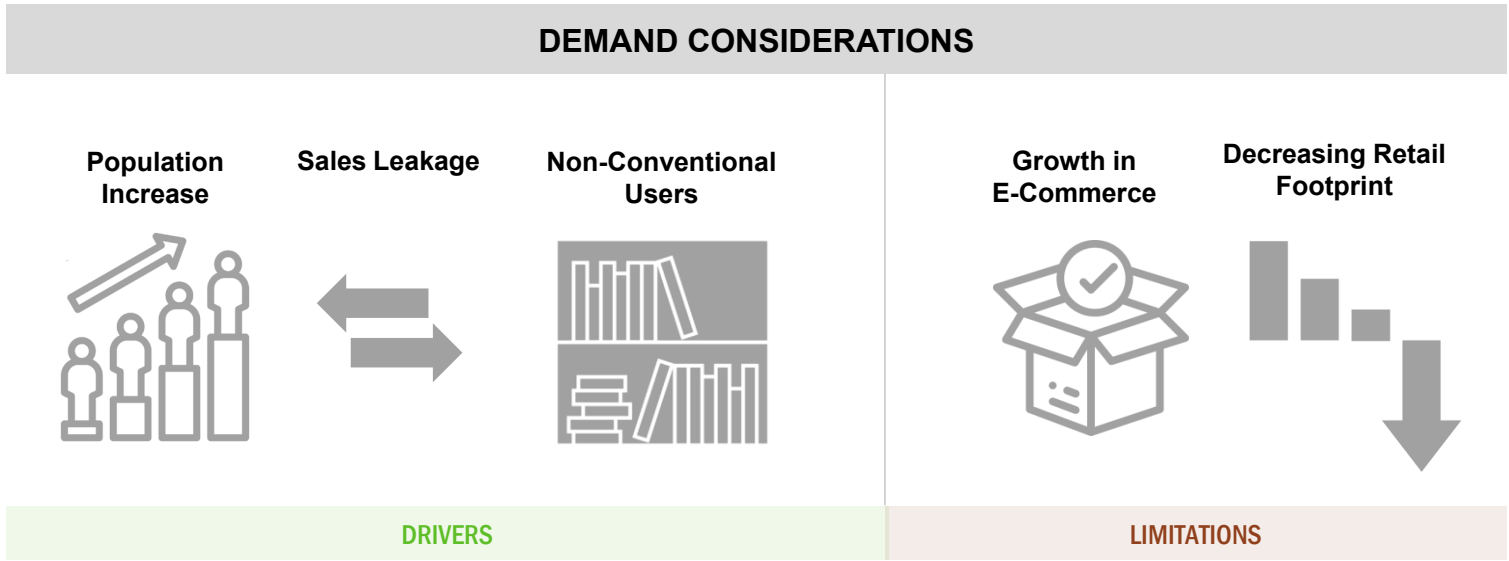
Retail demand drivers include:

1. Population Increase – Projections of future population growth provided by the BCDCOG
2. Sales Leakage – Per capita spending patterns, based on ESRI Leakage analyses
3. Non-Conventional Users – The increasing rate of unconventional users occupying traditional retail space were included in the projection (e.g. library and fitness tenants)

Factors inhibiting retail growth in the region include:

1. Decreasing Retail Footprint –A national trend in retail is a reduction in the total square feet per capita of retail and an increase in sales per square feet; resulting in less development and more efficient use of existing space
2. Growth in E-Commerce – Projected sales per capita account for an increasing rate of e-commerce sales which do not require brick and mortar space.

Each of the core assumptions were incorporated into an SB Friedman model projecting retail demand.



Retail – National Trends

Store closures are at record levels as big box stores reposition brick and mortar footprints

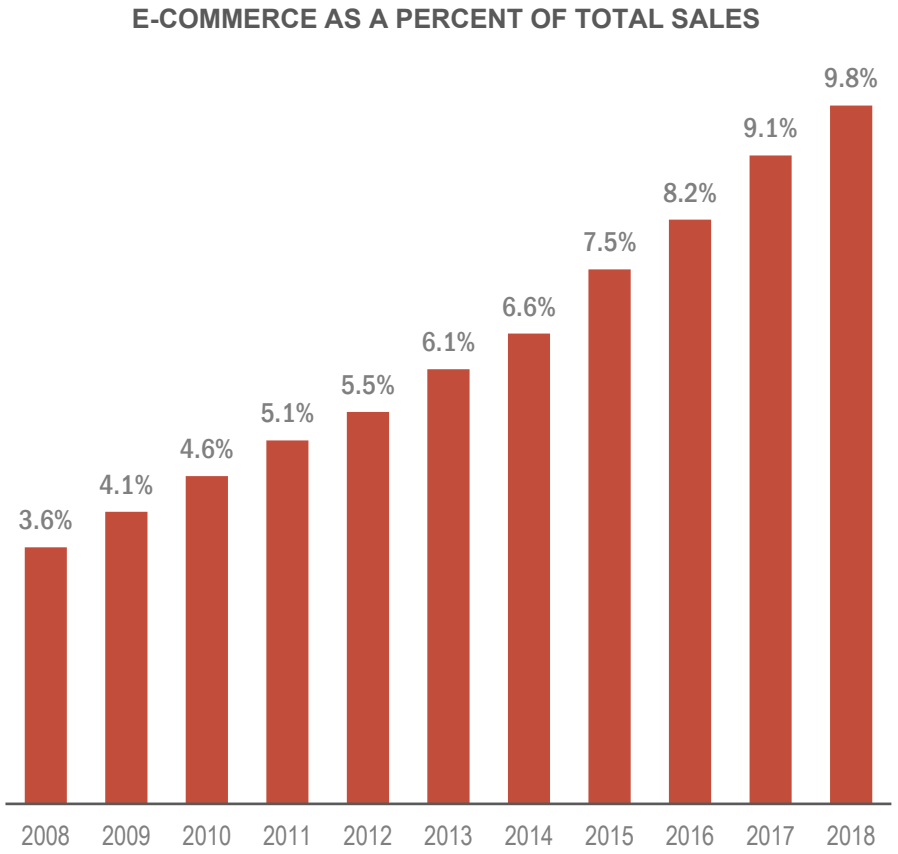
A rapidly shifting retail landscape is altering traditional drivers of retail demand. As e-commerce increases, many traditional retailers are downsizing their store footprints, and many traditional big box retailers are declaring bankruptcy and closing. While most big-box retail has been experiencing declining sales, there has been significant new demand for value- and convenience-oriented retailers, which are expanding throughout the US. Another growth category includes 'Clicks-to-Bricks' retailers, who began with an online-only presence but since expanded their footprint to include brick and mortar options.

Source: CNBC, Hilco, JLL

Retail – E-Commerce and Omni-Channel

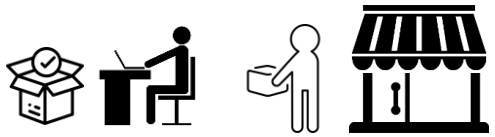
Shift toward online shopping is impacting brick and mortar retail development

While the rise of e-commerce is reducing the overall demand for retail square footage over time, it is also changing the way retailers use brick-and-mortar space. E-commerce has given rise to the growth of omni-channel retail, where retailers rent space as a showroom or as a fulfillment center to complete in-store pickups and returns.



SINGLE-CHANNEL
In-store only

MULTI-CHANNEL
Shop in-store or online



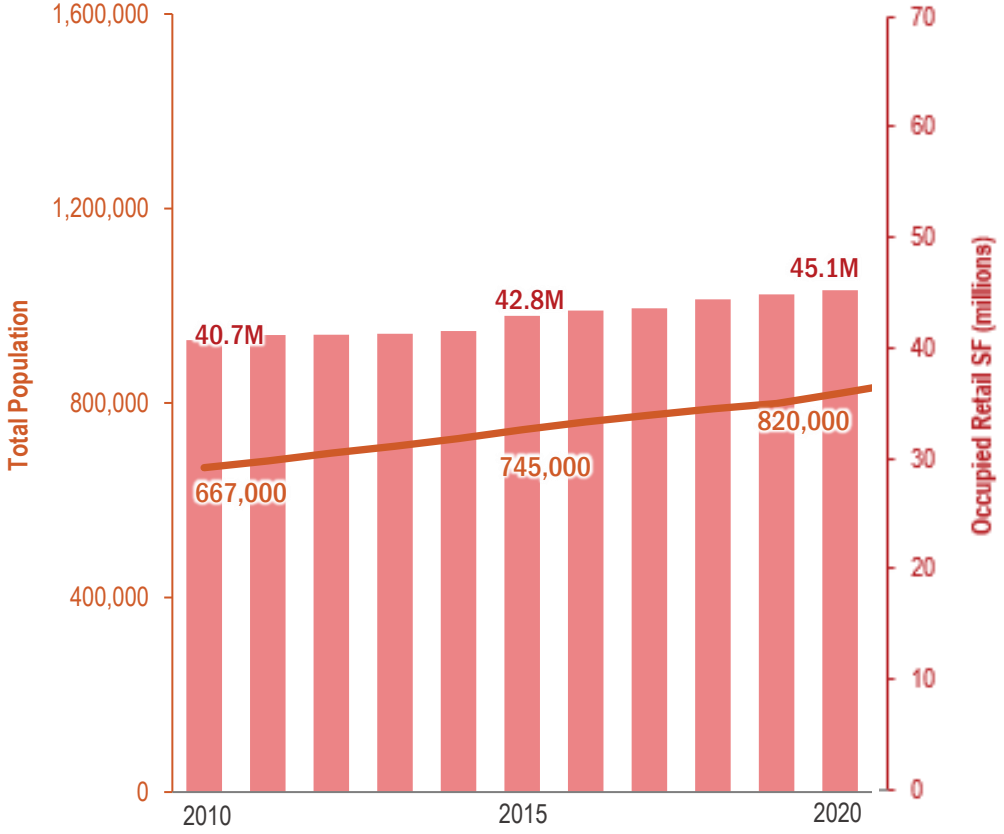
OMNI-CHANNEL
Shop online, pick up in-store

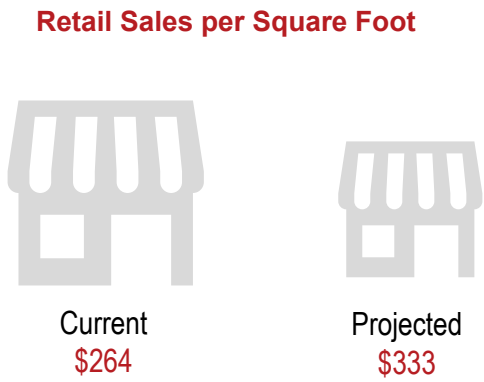
Source: CNBC; US BLS; Estimated Quarterly U.S. Retail Sales (Not Adjusted): Total and E-commerce.
Estimates are based on data from the Monthly Retail Trade Survey and administrative records for fourth quarter of each year.

Retail – Regional Demand Assumptions

Population growth and sales per square foot drive projected occupied square footage

Between 2010 and 2020, the region's population increased from 667,000 to 820,000 and occupied retail square footage increased from 40.7 million to 45.1 million square feet. Future population growth drives the demand for additional retail space; however demand is limited by a projected increase in the retail sales per square foot from $264 in sales per square foot to $333 by 2040.



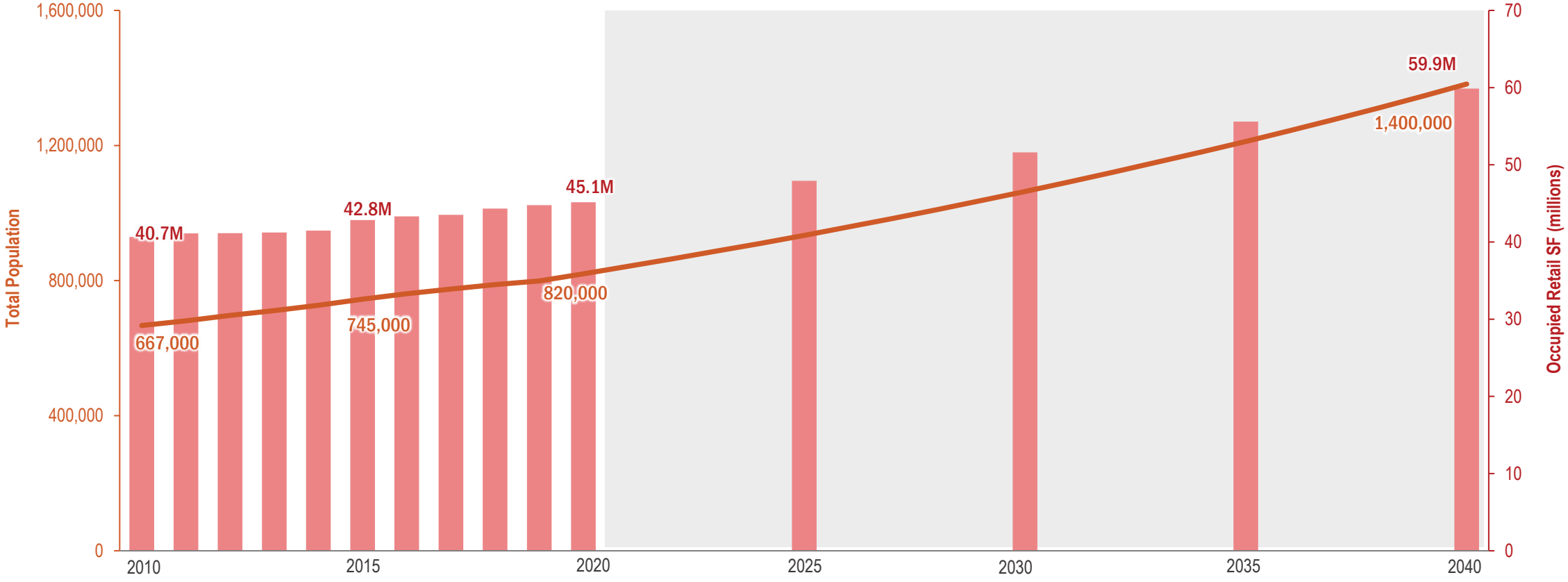


Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Retail – Regional Demand Assumptions

Population growth and sales per square foot drive projected occupied square footage

Between 2020 and 2040, the region's population is expected to grow to 1.4 million people and demand for occupied retail space is projected to increase to 58.8 million square feet; an increase of approximately 13.7 million occupied square feet. Occupied retail square feet differs from the final demand projection, as all product is expected to carry some ongoing vacancy which increases the total demand.

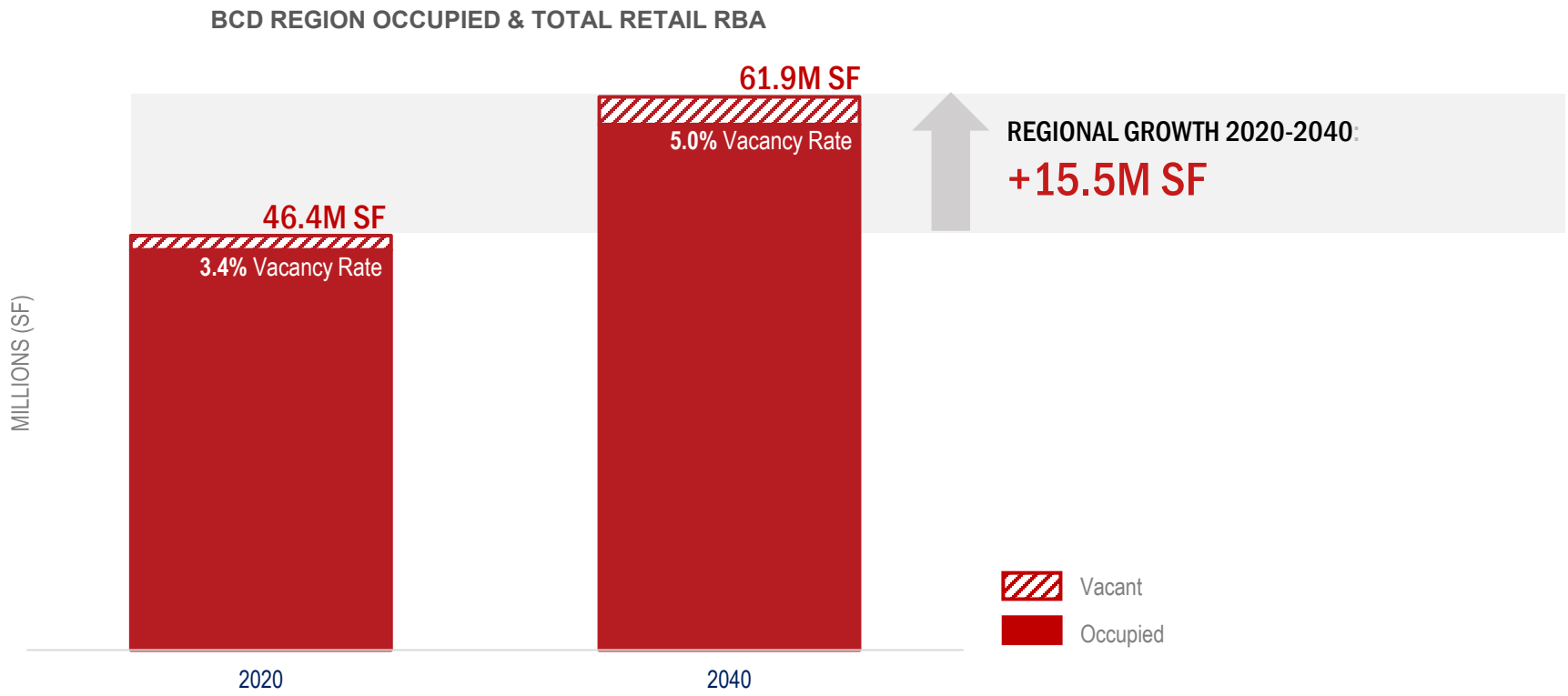


Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Retail – Regional Demand Projections

SB Friedman projects 15.5M SF of new retail rentable building area (RBA) through 2040

Given projected population growth and adjustments to account for the rise in e-commerce and omni-channel retail, SB Friedman projects total demand for 15.5 million square feet of retail space from 2020 to 2040, increasing the total regional inventory from 46.4 million square feet to 61.9 million square feet.

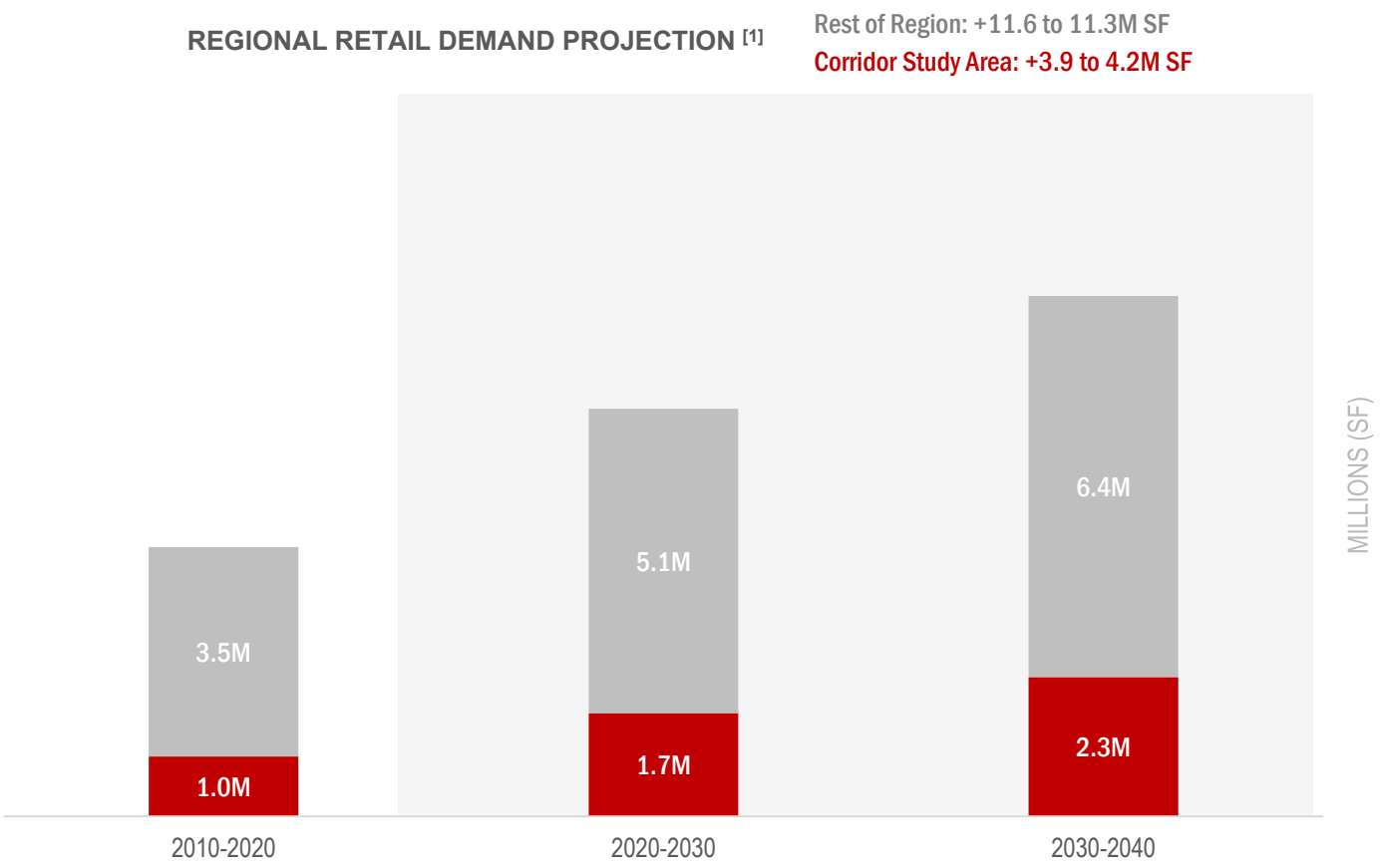


Source: CoStar (data as of 09/2019), ESRI, SB Friedman

Retail – Corridor Demand Capture

The Corridor Study Area will capture approx. 25-27% of regional retail development

The Corridor Study Area is projected to capture approximately 25-27% of regional demand through 2040. This capture rate is a function of the existing capture rate plus the expectation that the Study Area will capture a larger portion of regional mixed-use retail. As a result, the Study Area is projected to capture between 3.9 million and 4.2 million square feet of new retail between 2020 and 2040.



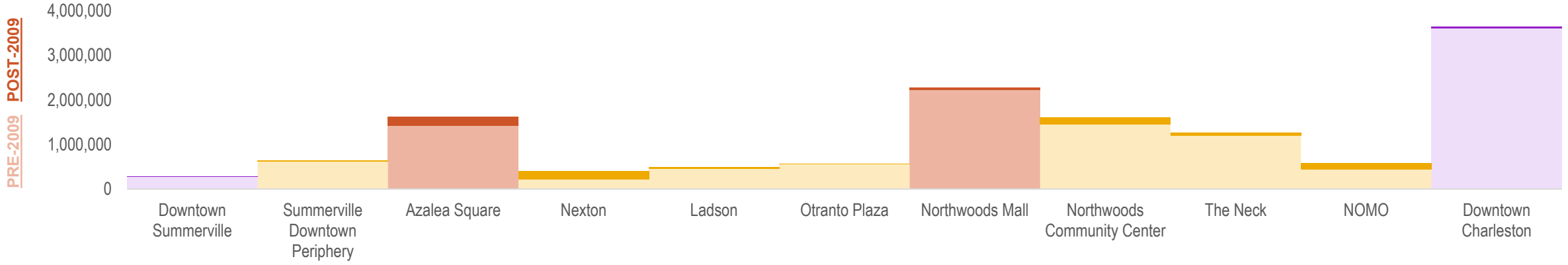
[1] Reflects average of low and high capture scenarios

Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Retail – Corridor Study Area Inventory

There are strong retail anchors on either end of the Study Area, smaller retail throughout

With 3.9 million to 4.2 million square feet of retail to be added to the Study Area through 2040, it is important to evaluate existing retail trends within the Study Area to begin to determine where future retail space will locate. Of the existing retail clusters within the Study Area, Azalea Square and Nexton have absorbed the most new retail built since 2009. Smaller pockets of new development have occurred in the NoMo and Neck emerging neighborhood centers.

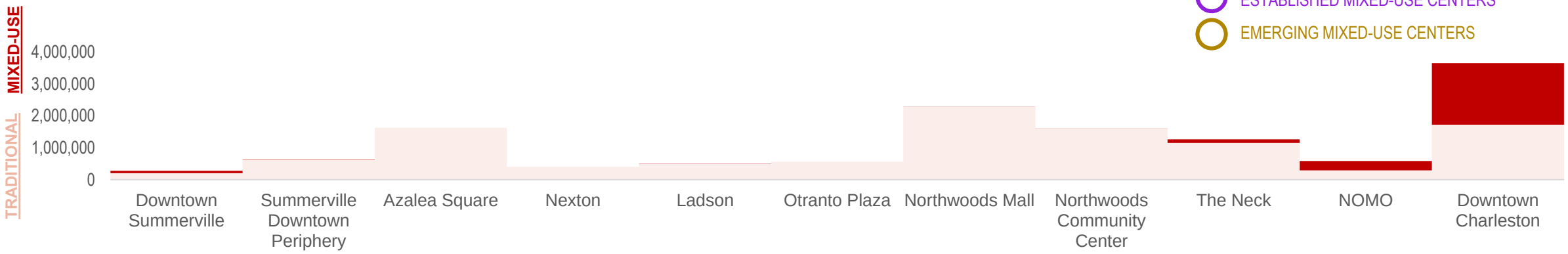


Source: CoStar (data as of 09/2019), ESRI, HDR, SB Friedman

Retail – Corridor Study Area Mixed-Use

Corridor Study Area contains 55% of total regional mixed-use retail space

Currently, Downtown Summerville and Downtown Charleston are established mixed-use centers within the Study Area. While still largely auto-oriented, the Neck and Nomo have recently experienced new mixed-use retail development. As development continues to occur within these key areas, the Study Area may transition to a higher percent of mixed-use retail.



Source: CoStar (data as of 09/2019), ESRI, HDR, SB Friedman

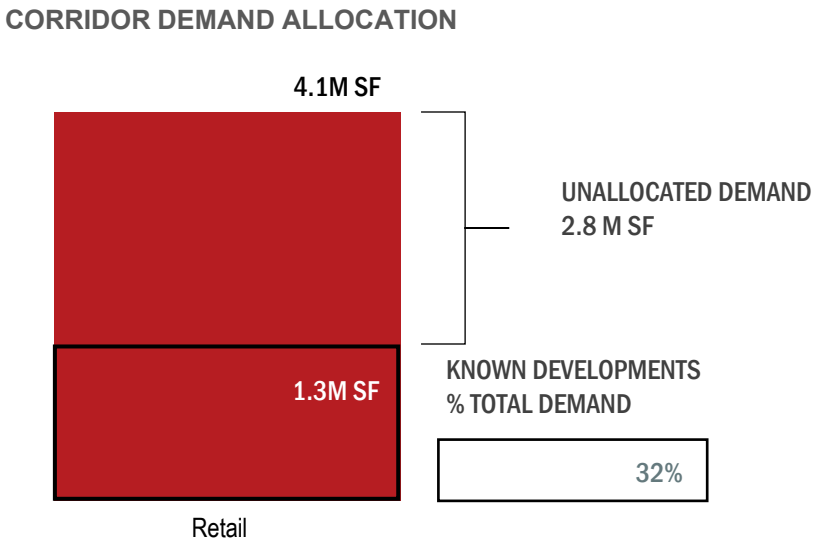
Other major regional mixed-use centers: Daniel Island (77%), Mt. Pleasant Towne Center (11%), Folly Road (James Island) (7%)

Retail – Demand Projections

Known Development Sites will absorb 32% of projected demand

Currently, there is approximately 1.3 million square feet of retail space planned or under construction within the Study Area, which accounts for 32% of the total demand projection. This leaves 2.8 million square feet of unallocated demand within the Study Area that will be absorbed in the remainder of nodes.

The remaining retail demand is most likely to cluster around existing retail centers and within high-growth residential areas which may include mixed-use, ground floor retail.



Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Developer Interviews; Esri; HDR; LEHD; SB Friedman

Office

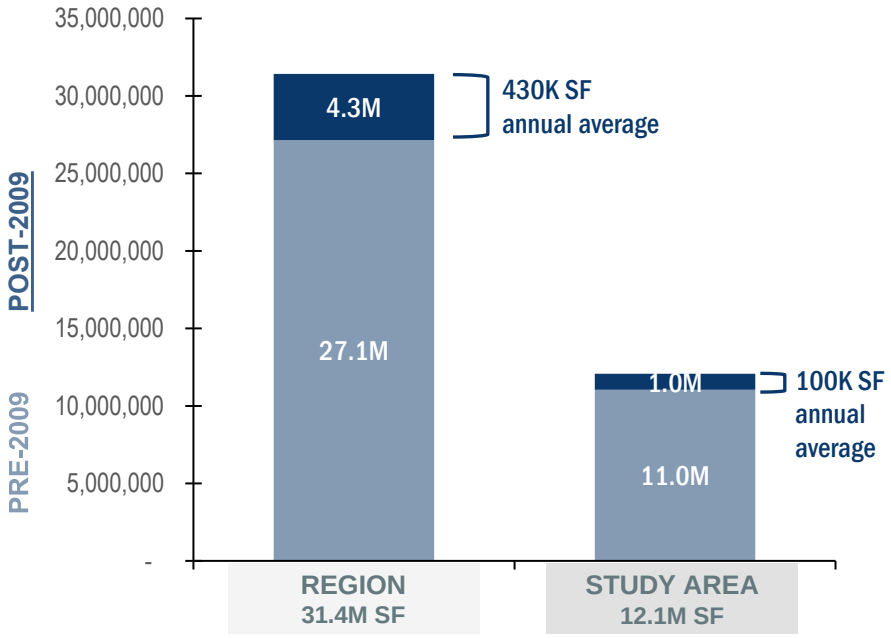
BCD REGION EXISTING INVENTORY | NEW DEVELOPMENT | REGIONAL SUBMARKETS

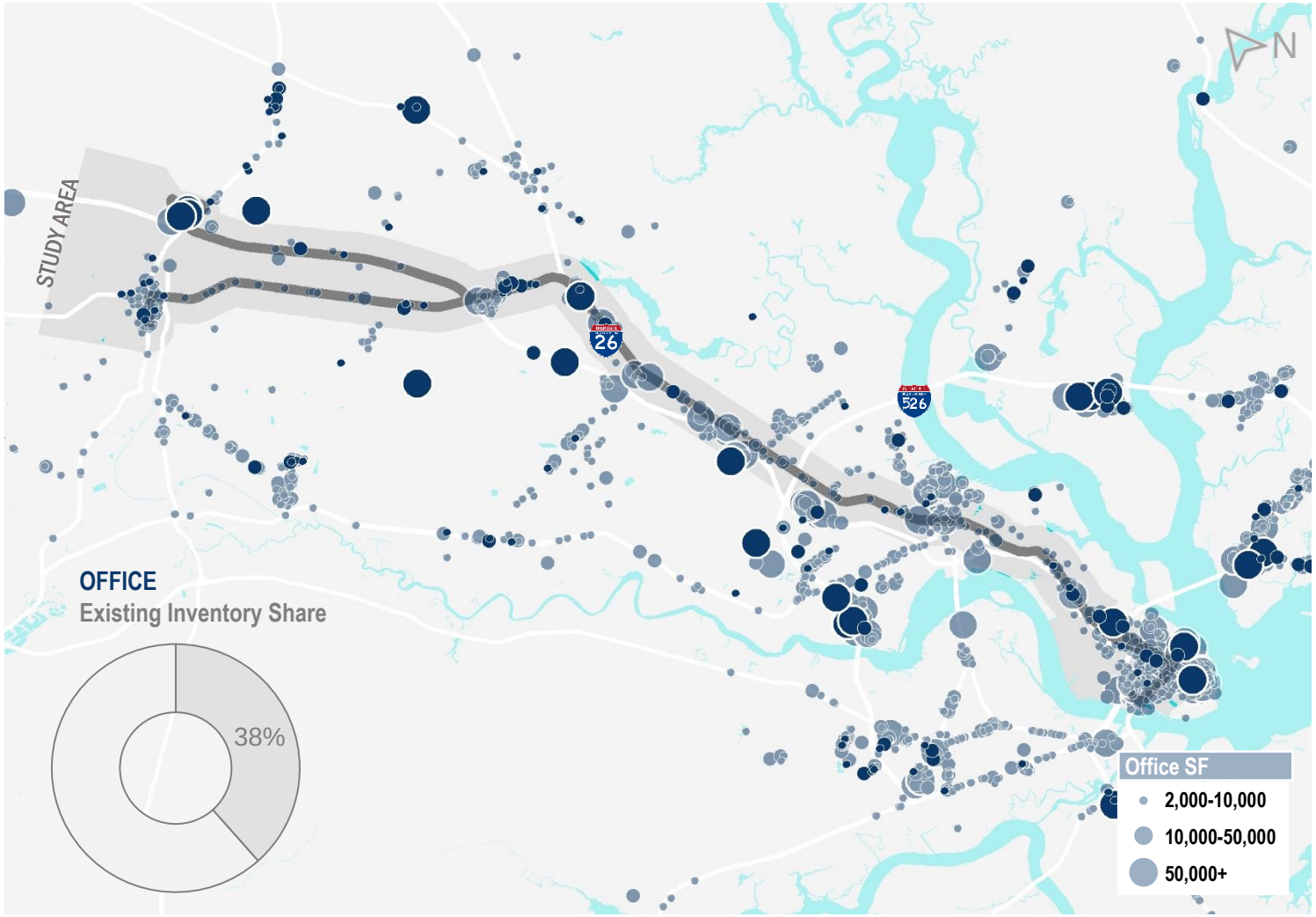
Office – Existing Inventory

Approximately 38% of existing office space in the region is in the Corridor Study Area

There is 31.4 million square feet of existing office space across the BCD region, 12.1 million square feet (38%) of which is within the Study Area.

Since 2009, an annual average of 430,000 square feet of office space has been delivered region-wide, 100,000 square feet of which was delivered annually within the Study Area.





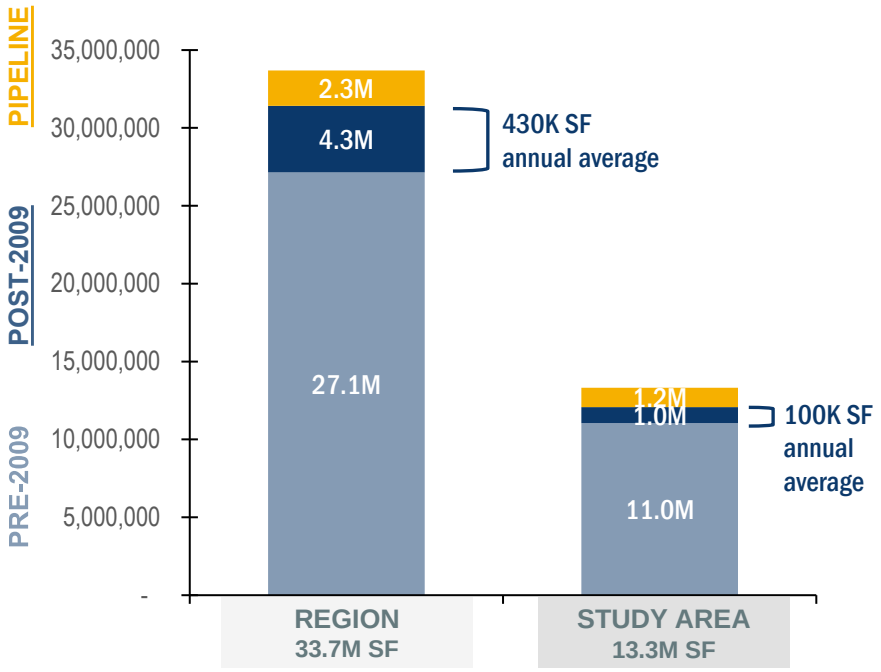
Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

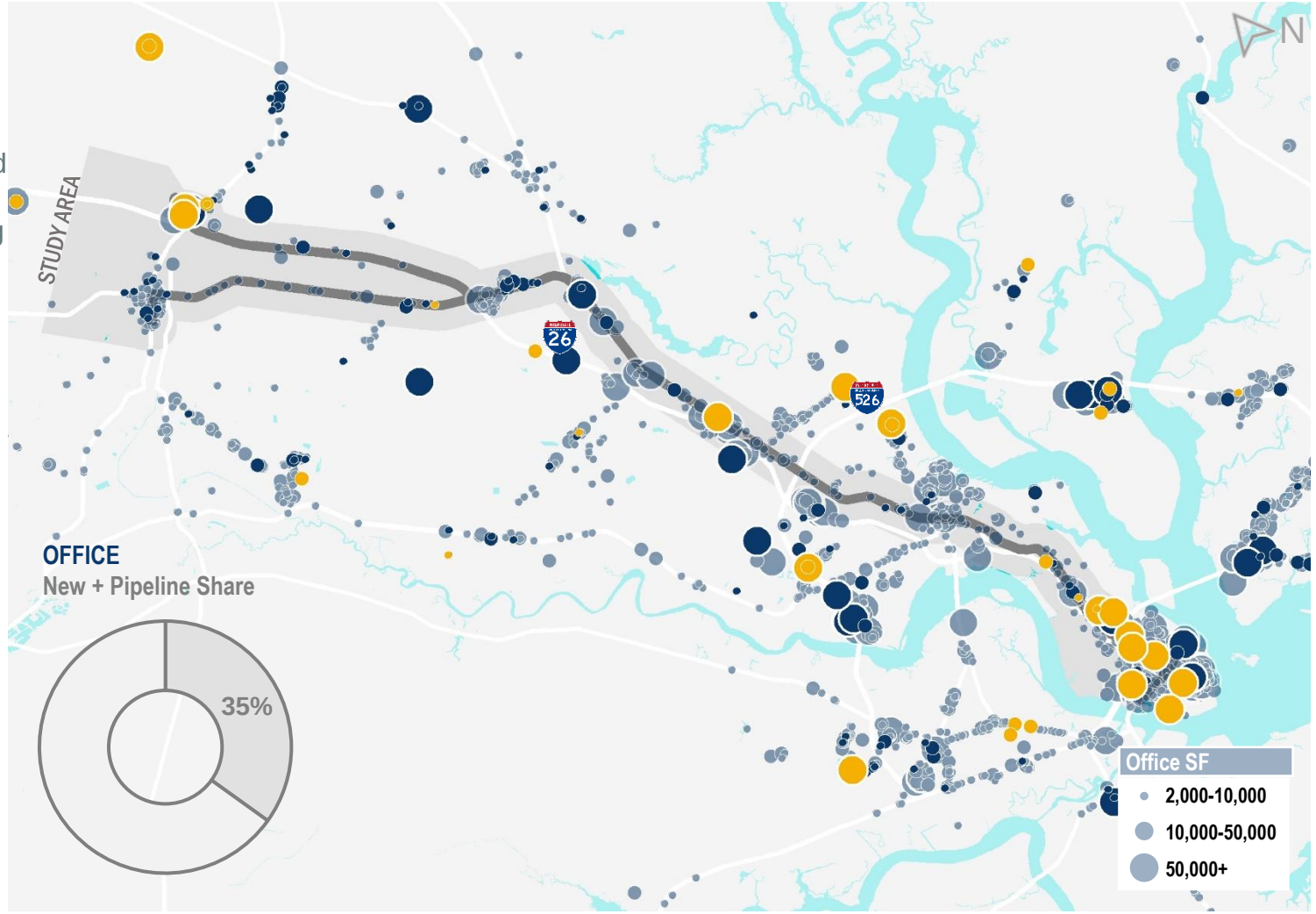
Office – Post-2009 & Pipeline

Half of the pipeline office development in the region is in the Corridor Study Area

There is about 2.3 million square feet of office space planned or under construction within the region, 1.2 million square feet within the Study Area.

The Study Area share of new and pipeline office product is 35% compared to the historic 38%. The high amount of office planned within the Study Area shows continued strength of the corridor, although emerging nodes outside of the Study Area are resulting in a slight decline in the capture relative to historic performance.





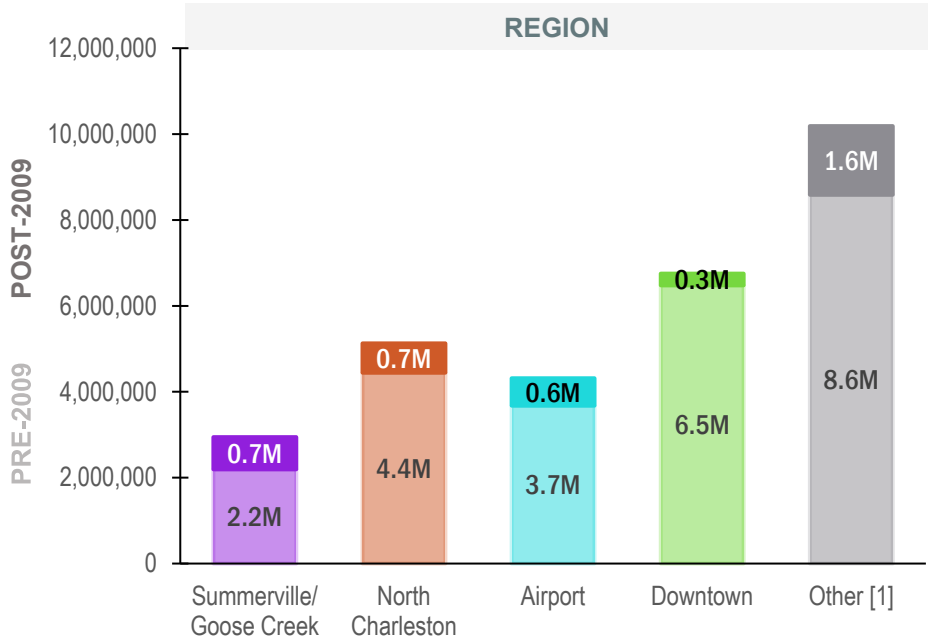
Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

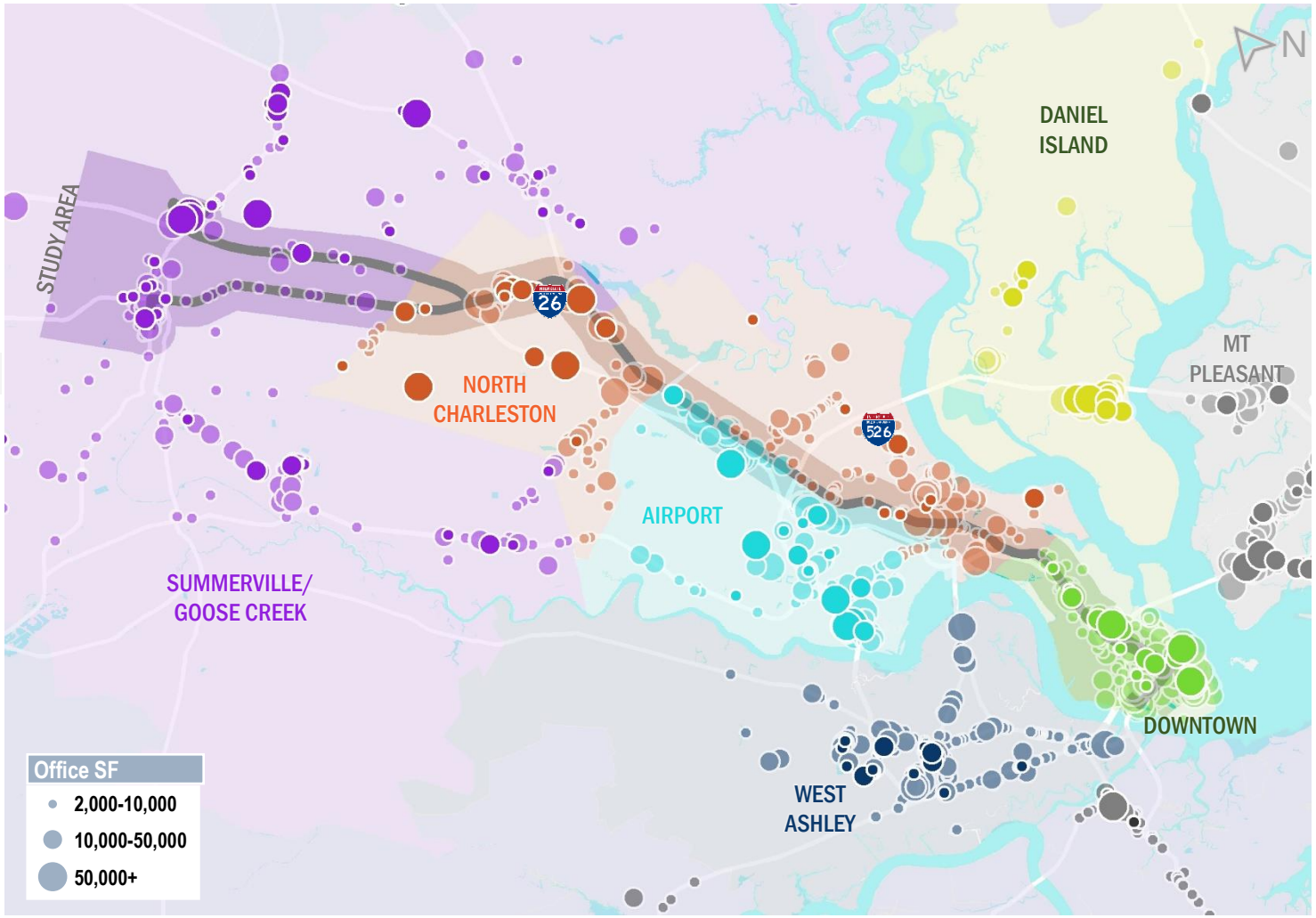
Office – Submarket Existing Inventory

Existing product is well distributed on the preferred alignment

Of the major office submarkets within the region, four intersect the Corridor Study Area: Summerville/Goose Creek, North Charleston, the Airport cluster, and Downtown. Other major submarkets include Daniel Island, Mount Pleasant, and West Ashley.

Existing product is distributed among the four intersecting submarkets; with the most in the Downtown and North Charleston submarkets. Summerville/Goose Creek and North Charleston have had the most development since 2009.





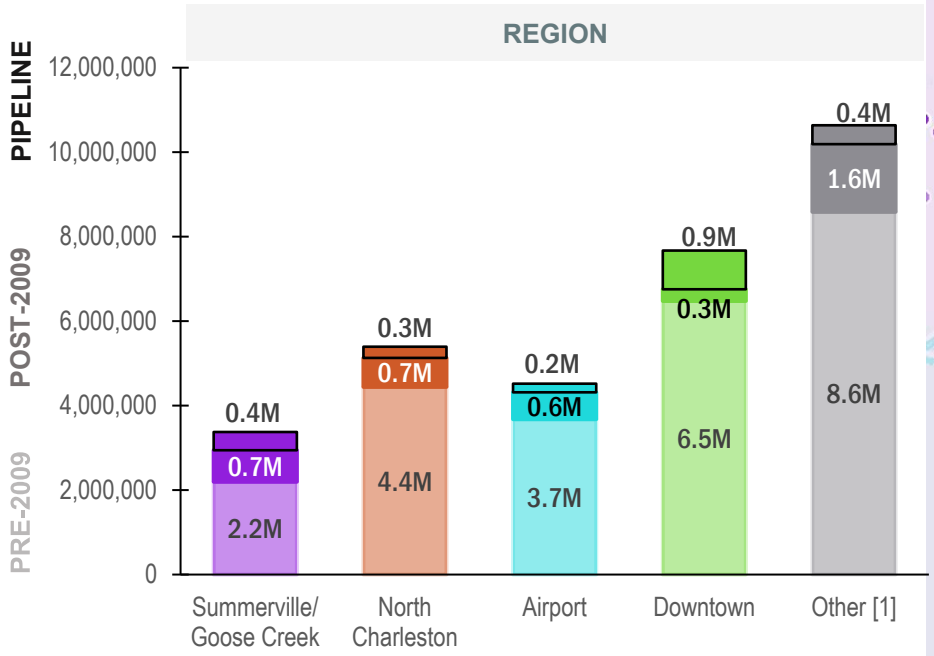
[1] "Other" includes properties within Daniel Island, West Ashley and Mount Pleasant submarkets, along with additional properties not within regional extent

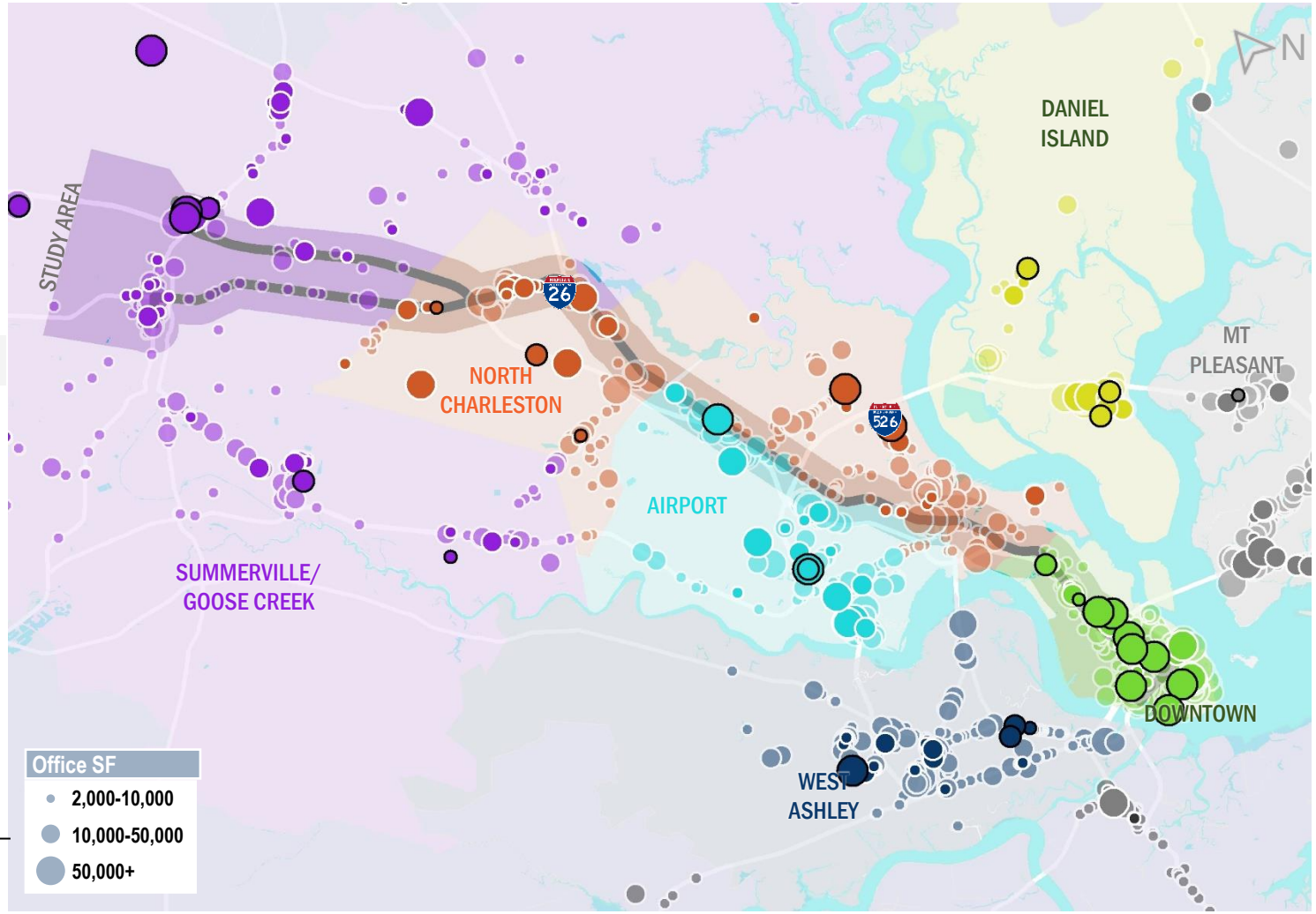
Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Office – Submarket Pipeline

About half of pipeline office development is concentrated in the Downtown submarket

Most of the pipeline development is proposed to be developed within the Downtown submarket, where about 900,000 square feet planned or under construction. Proposed projects in the Downtown represent roughly half of the regional total pipeline inventory. Summerville/Goose Creek and North Charleston also include a substantial inventory in the pipeline, with 400,000 and 300,000 square feet respectively.





[1] "Other" includes properties within Daniel Island, West Ashley, and Mount Pleasant submarkets and along with additional properties not within regional extent

Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Office – New Development by Submarket

Most post-2009 office development is clustering around major mixed-use centers

Within the Study Area, there has been about 1.0 million square feet of office space delivered since 2009. The majority of office space has been delivered along the proposed alignment in the North Charleston submarket, near the major employment centers of Trident Health and Charleston South University. A significant amount of new product has also been delivered in the Nexton master planned community and scattered sites in downtown Summerville.

1.0M SF NEW OFFICE IN THE CORRIDOR STUDY AREA SINCE 2009

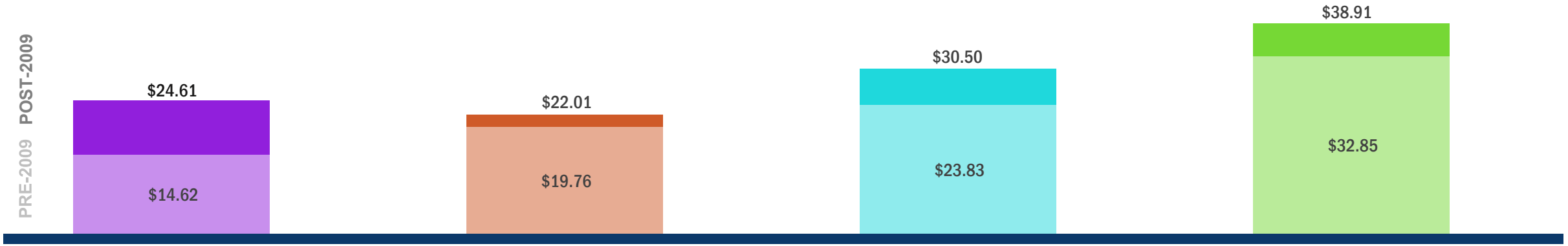
35%	37%	3%	26%
355,800 SF	378,200 SF	26,700 SF	264,400 SF

Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Office – Rent by Submarket

Summerville/Goose Creek is an emerging office market experiencing rent growth

Office rents for product within and near the Study Area are highest Downtown, with rents approaching $40 per square foot for new product delivered since 2009. Rents also exceed $30 for new product in the Airport cluster. Rents for pre-2009 product are lowest within the Summerville/Goose Creek submarket, but new product is being delivered with a significant price premium, suggesting rising demand for Class A office product in Summerville, Nexton, and other office centers within this submarket.

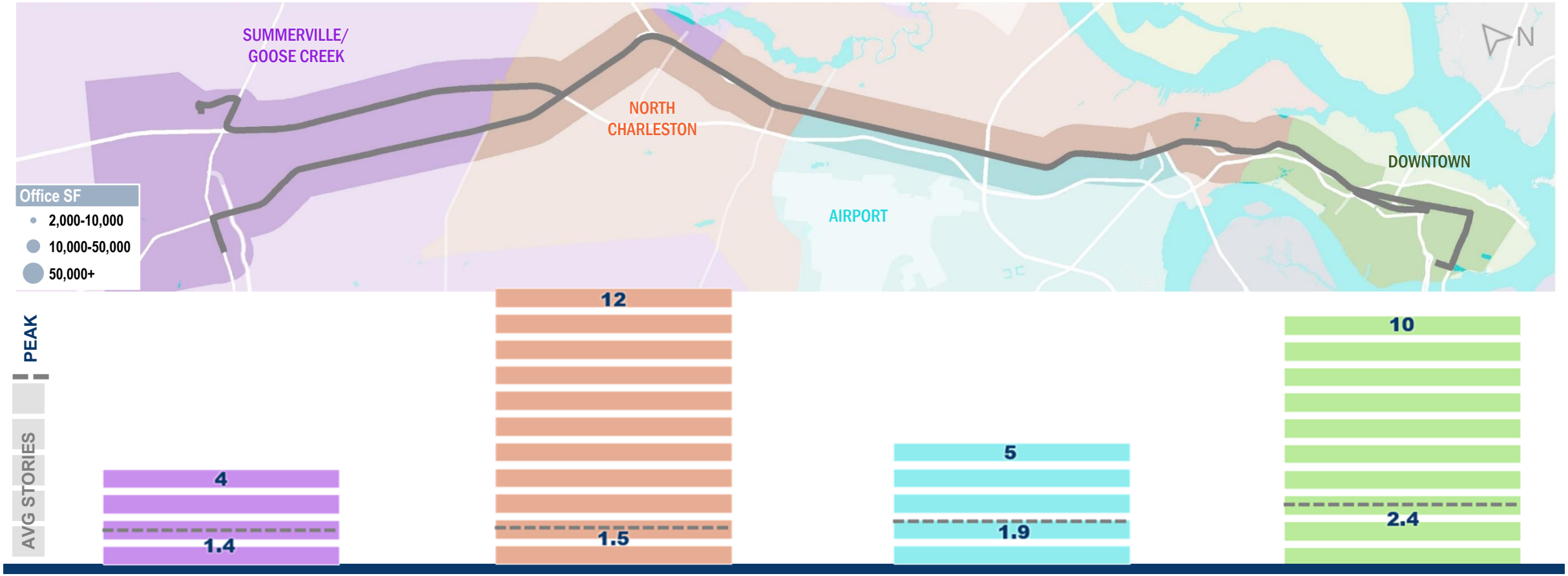


Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Office – Stories by Submarket in the Corridor

Average office building height in the Corridor Study Area range from 1.4 to 2.4 stories

Existing office product throughout the Study Area is mostly low-rise. While the average building height is 2.4 stories in Downtown, the average height among the other major submarkets is under 2 stories. The tallest office building in the Study Area is the 12-story Charleston Naval Hospital site in North Charleston, which is currently vacant. The tallest building in the Downtown submarket is the 10-story Harborview Tower.



Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Office – Sample Typologies

Higher-density developments include a significant amount of structured parking

New office developments vary in density throughout the region. While most projects are between 50,000 and 160,000 square feet, the FAR of new buildings varies significantly, from 0.1 for low-density sites and over to 2.0 for the highest-density projects. Historically, higher-density office developments have had a smaller square feet per employee ratio.

Higher-density developments are the only typology that accommodates structured parking, with some projects exceeding 8 parking spaces per 1,000 square feet.

	BUILDING FORM	SF PER PROJECT	FAR / STORIES	SF PER EMPLOYEE	PARKING RATIO
LOWER-DENSITY		50-160K	0.10-0.20 1 story	250	4.0-8.0 Surface
MID-DENSITY		100-130K	0.30-0.50 4-5 stories	175	1.0-4.5 Surface
HIGHER-DENSITY		65-150K	0.50-2.0+ 4-6 stories	170	3.0-8.0 Structured

PROJECTS:
Lower-Density: Comcast Center for Excellence, 3450 Ingleside Blvd (North Charleston)
Mid-Density: The Offices at Nexton, 201 Sigma Dr (Summerville/Goose Creek)
Higher-Density: Charleston Tech Center, 997 Morrison St (Downtown)

Parking ratio is the number of spaces per 1,000 SF of office
Source: CoStar (data as of 09/2019); SB Friedman

Office – Supply Takeaways

Recent office deliveries indicate the region has a diverse, robust office market

SHARE

35-38%
of existing and pipeline office inventory in the region is in the Corridor Study Area

DELIVERIES

25%
of office development built post-2009 in the Corridor Study Area is in Downtown

RENT

$22 - $39
rent per square foot for new construction in the region, highest Downtown

SCALE

0.1-2.0
FAR per project in recent deliveries, ranging from 1-6 stories and with various parking ratios

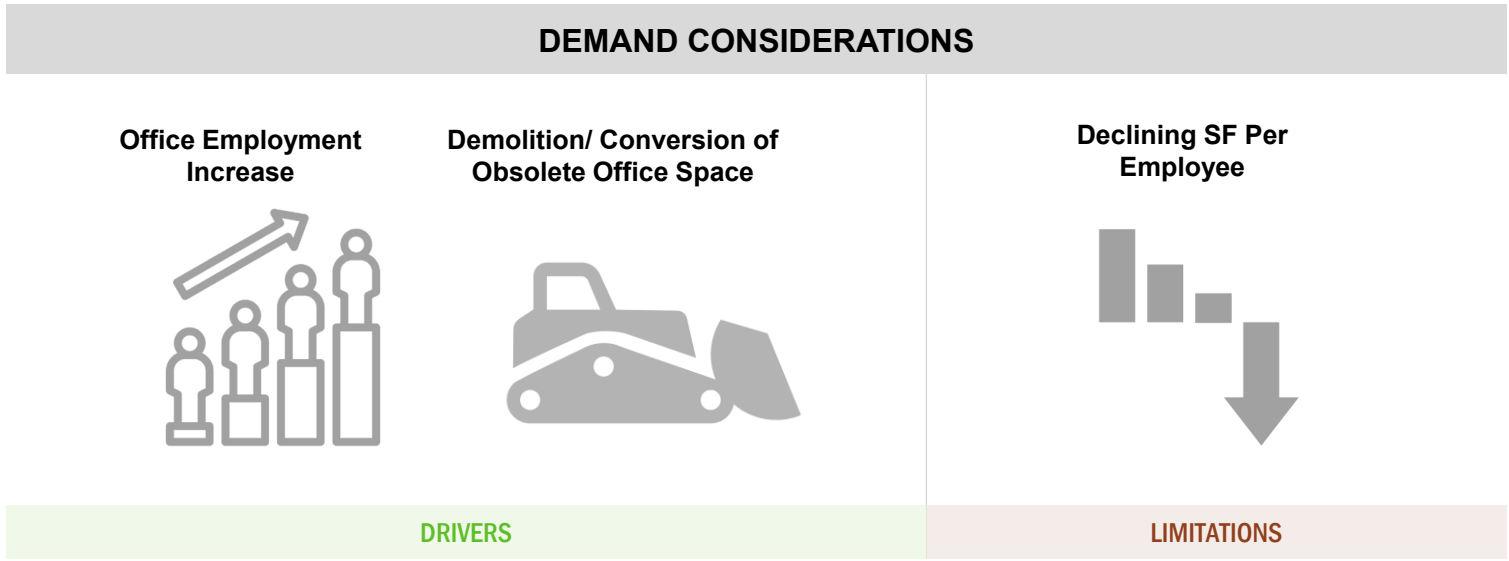
Office – Demand Considerations

Employment growth and shifting employer needs drive demand for future office space

Office demand projections are based on three key considerations, including:

1. Projected Office Employment Increase – Projected office employment, based on BCDCOG 2040 projections
2. Demolition/Conversion of Obsolete Office Space – the rate at which existing office is demolished and replacement with renovated or new construction space
3. Square Feet Per Employee Decline – office space is projected to become more efficient over time; meaning fewer square feet of office will be required to accommodate the same number of employees

Each of the core assumptions were incorporated into an SB Friedman model projecting office demand by product type.

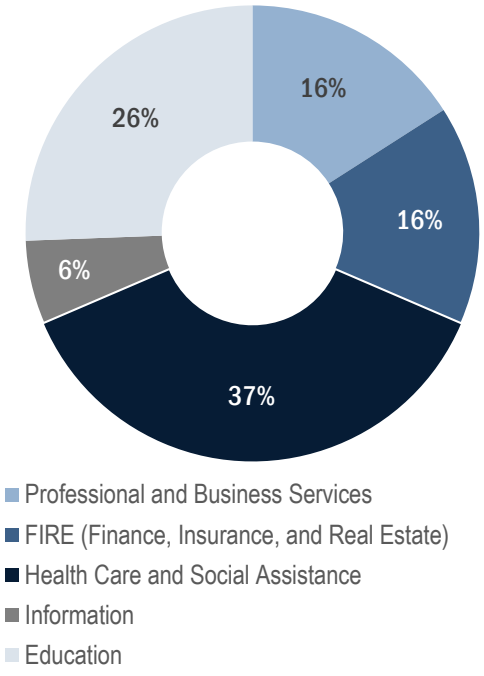


Office – Employment Projections

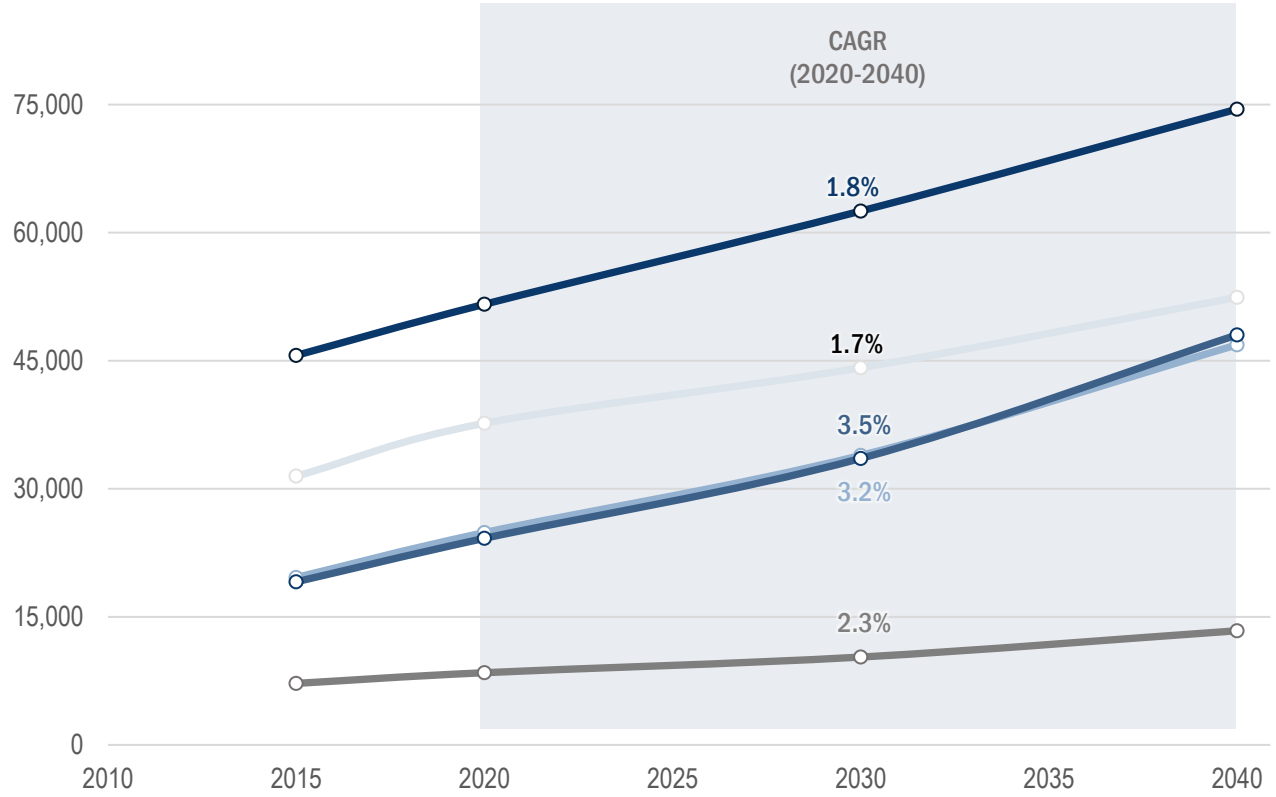
FIRE jobs will experience the largest percentage growth between 2020 and 2040

Office employment categories include industries like Professional and Business Services; Education; and FIRE (Finance, Insurance, and Real Estate). The primary office employment sectors have compound annual growth rates ranging from 1.7% to 3.5% from 2020 to 2040. FIRE jobs have the highest projected growth rate between 2020 and 2040, with 3.5% annual projected growth in employment.

OFFICE EMPLOYMENT CATEGORIES (2015)



EMPLOYMENT PROJECTIONS BY CATEGORY

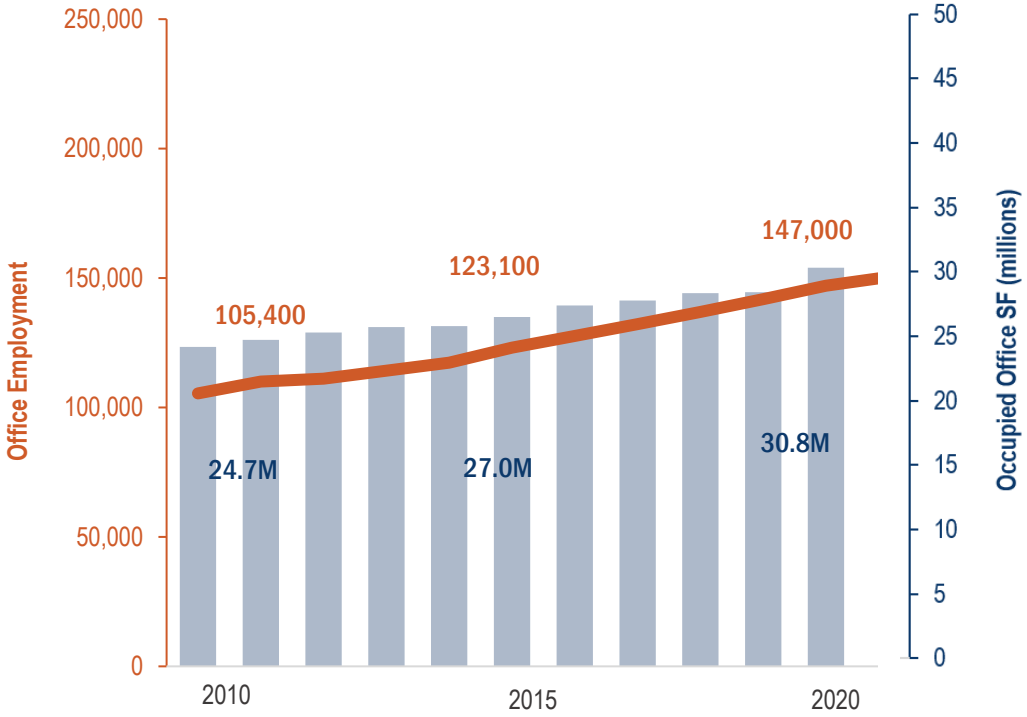


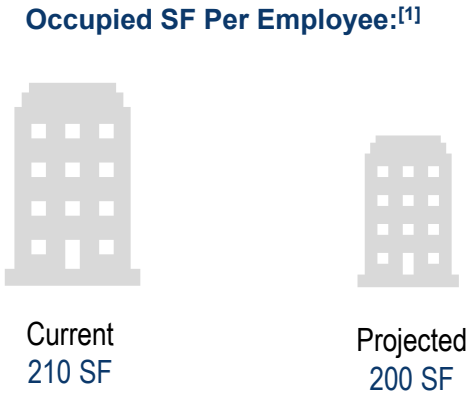
Source: BCDCOG Charleston Area Transportation Study; SB Friedman

Office – Regional Demand Assumptions

Employment growth drives projected occupied square footage

Between 2010 and 2020, office employment increased regionwide from 105,400 employees to 147,000 employees. Over the same period, occupied office square footage increased from 24.7 million square feet to 30.8 million square feet. Future employment trends drive the projected demand for additional occupied office space through 2040. However, demand projections account for a projected decline in the average occupied square feet per employee in new space, from 210 square feet in 2020 to 200 square feet per employee in 2040.





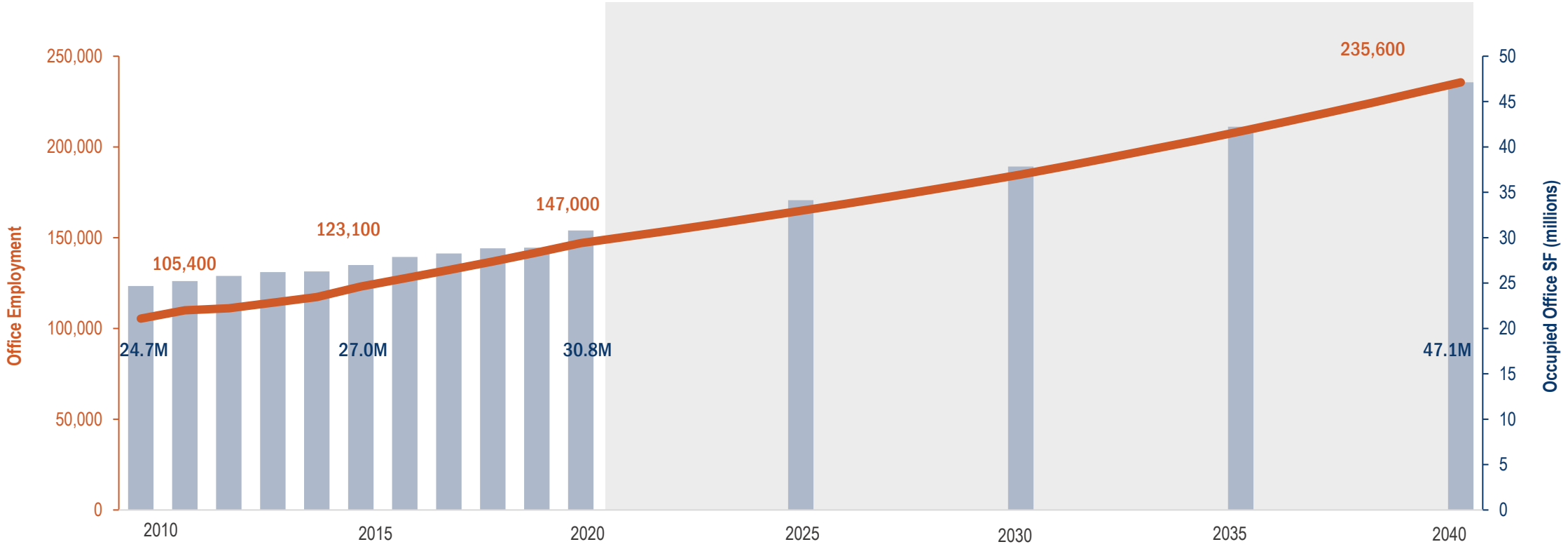
[1] Density metric includes a portion of healthcare and education employees who will likely not occupy private office space. Excluding non-traditional office employees, aggregate office density is projected to be 230 square feet per employee

Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Office – Regional Demand Assumptions

SB Friedman projects 47.1 million square feet of occupied office space in 2040

The BCDCOG projection of an increase of 235,600 office employees by 2040 drives demand for 47.1 million square feet of occupied office space in the region. The resulting office employment density regionwide is 200 square feet per employee.[1]



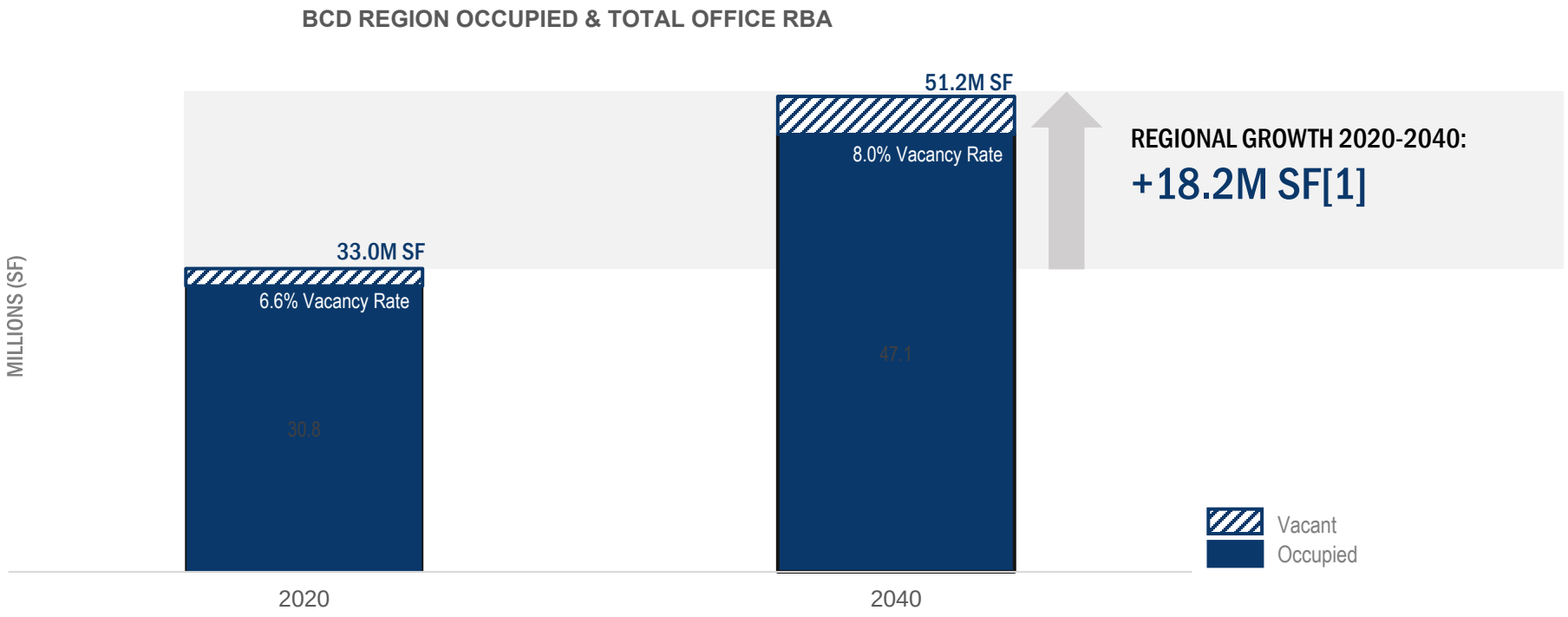
[1] Density metric includes a portion of healthcare and education employees who will likely not occupy private office space. Excluding non-traditional office employees, density is projected to be 230 square feet per employee

Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Office – Regional Demand Projections

SB Friedman projects demand for 18.2 million square feet of office from 2020 to 2040

Using the BCDCOG projected employment growth and accounting for the projected increase in office space density over time, SB Friedman projects total demand for 18.2 million square feet of office through 2040, increasing the total regional inventory from 33.0 million square feet to 51.2 million square feet.



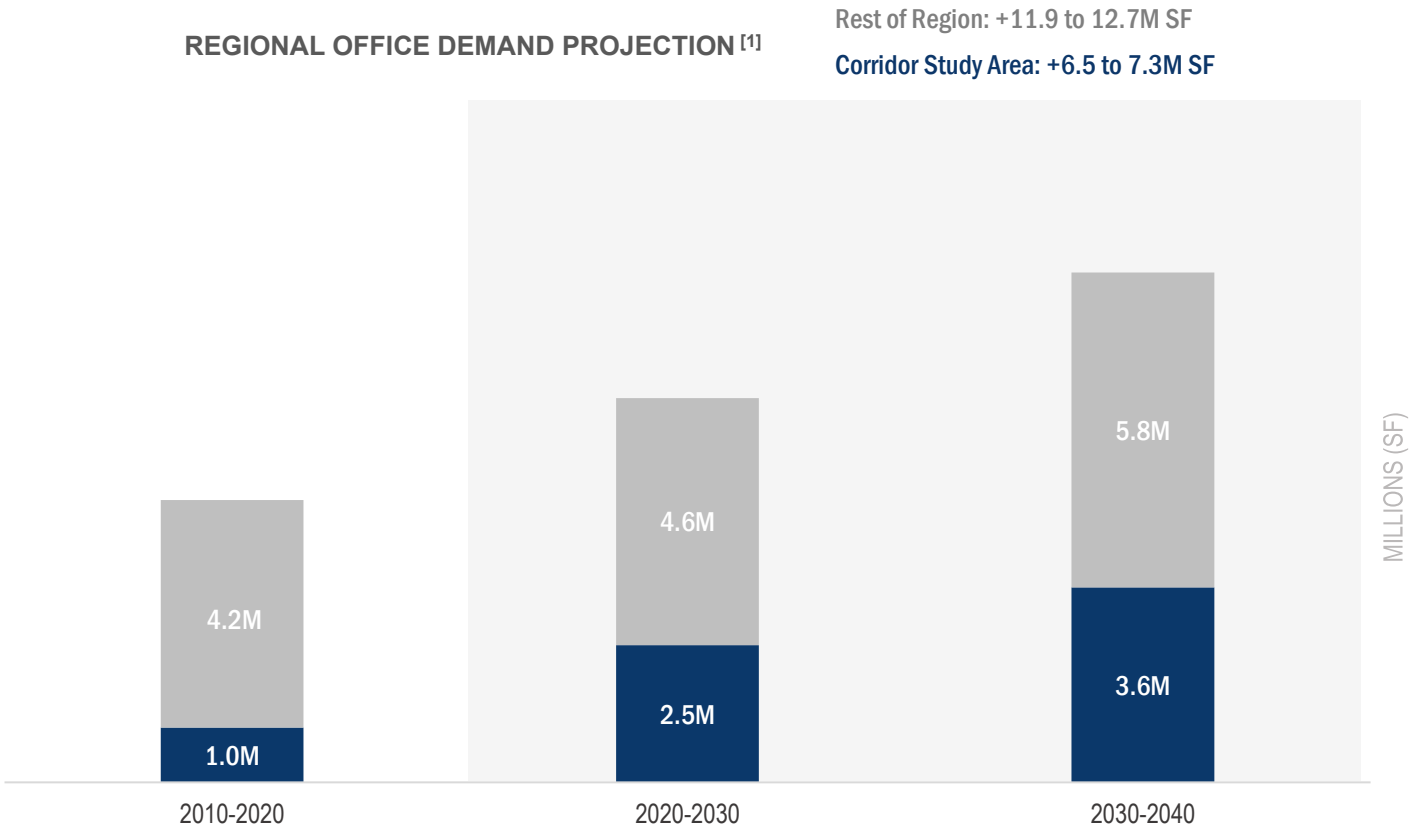
[1] Accounts for demolition of approximately 380K SF

Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Office – Study Area Demand Capture

The Corridor Study Area will capture approx. 34-38% of regional office development

The Corridor Study Area is projected to capture approximately 34-38% of new regional office based on historic capture rates. Based on the capture rate range, the Study Area is projected to have an increase of 6.5 to 7.3 million square feet of office development between 2020 and 2040.



[1] Reflects average of low and high capture scenarios

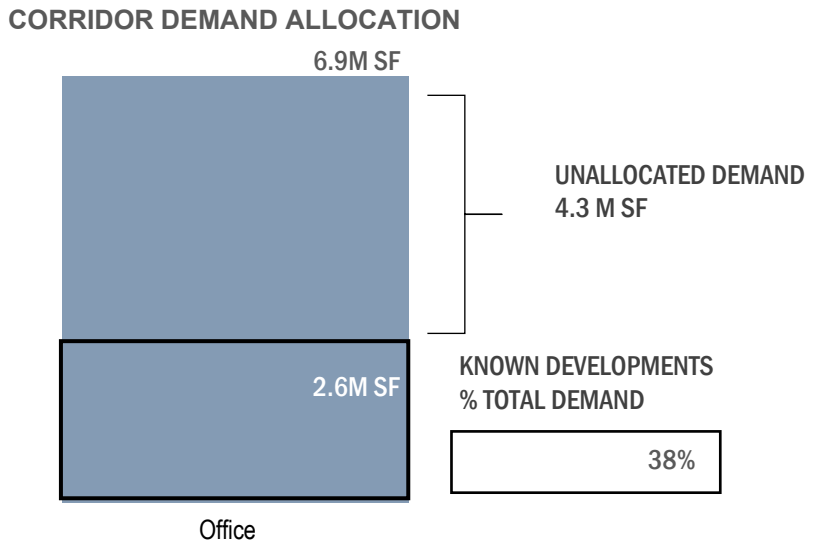
Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

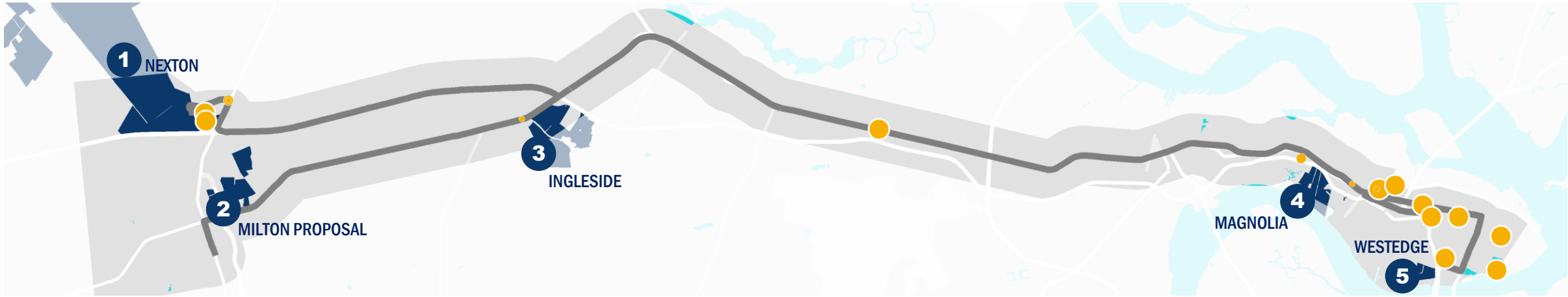
Office – Demand Projections

Known Development Sites will absorb 38% of projected demand

Currently, there is approximately 2.6 million square feet of office space planned or under construction within the Study Area, capturing 38% of total future demand. This leaves 4.3 million square feet of unallocated demand remaining to be absorbed within the Study Area through 2040.

Unallocated demand will occur throughout the Study Area, however development is anticipated to continue to concentrate around major existing employers (e.g. near the airport and university campuses).





Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Developer Interviews; Esri; HDR; LEHD; SB Friedman

Industrial

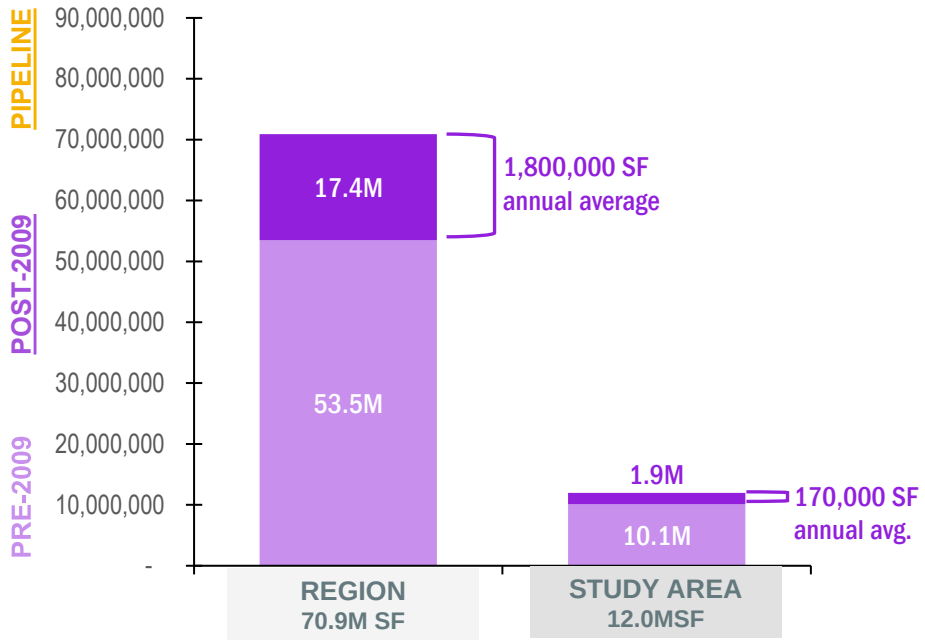
BCD REGION EXISTING INVENTORY | NEW DEVELOPMENT | REGIONAL CLUSTERS

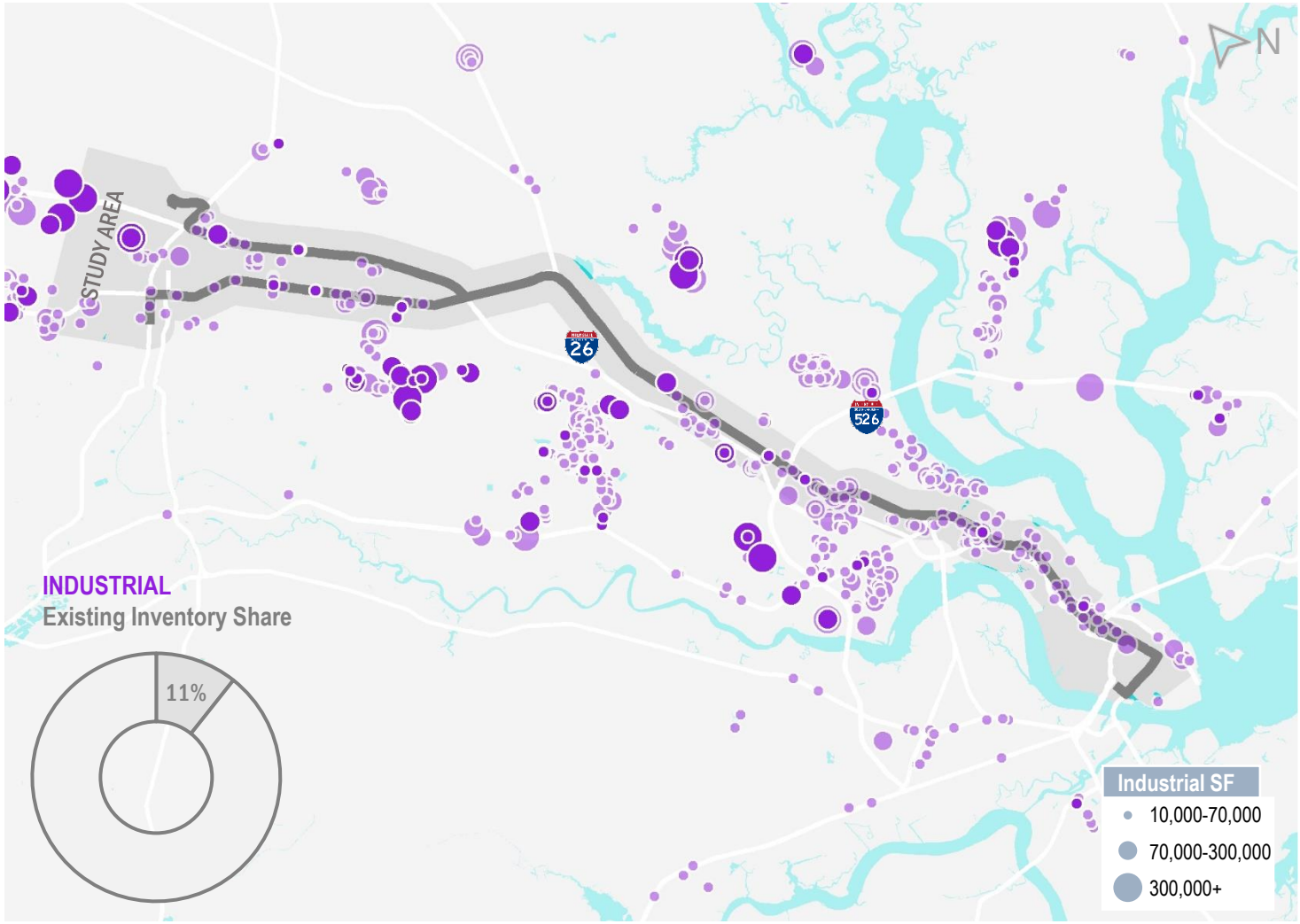
Industrial – Existing Inventory

Approximately 11% of existing industrial inventory is within the Corridor Study Area

Across the BCD region, there is approximately 70.9 million square feet of industrial space. Approximately 25% of all existing industrial was only built within the past 10 years. Since 2009, an average of 1.8 million square feet has been added annually throughout the region.

Of the 70.9 million square feet of existing inventory, 12.0 million, or 11% is within the Study Area. The Study Area has added only about 170,000 square feet annually since 2009.





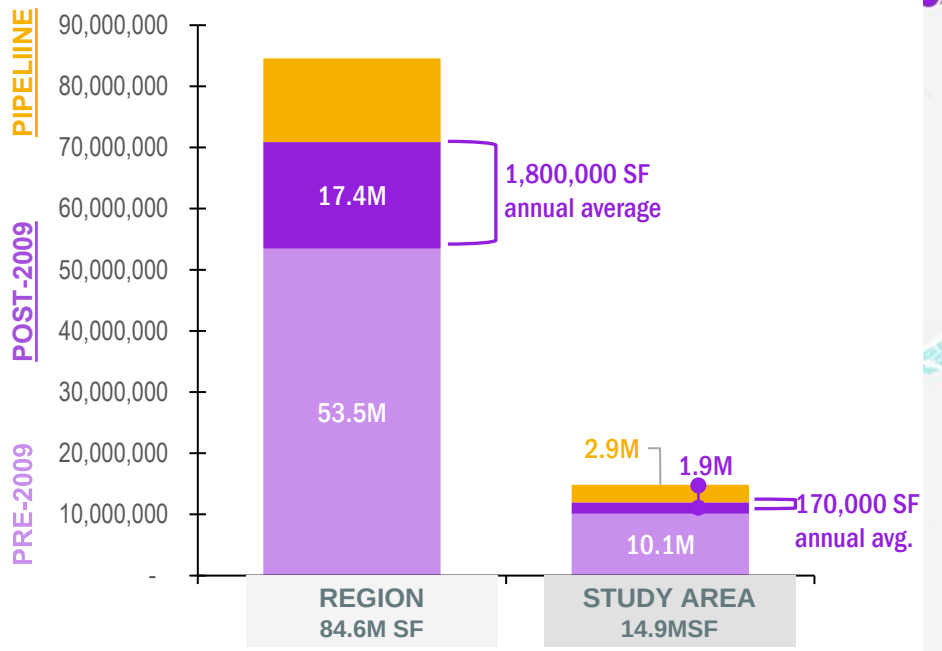
Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Industrial – New & Pipeline

The majority of new industrial is occurring in large-scale projects on the Study Area periphery

Approximately 13.7 million square feet of industrial space is planned or under construction within the region. Of the planned developments, 2.9 million square feet are within the Study Area.

The combined new and pipeline product within the Study Area accounts for 15% of the regional total, compared to 11% of the existing inventory. The higher capture of pipeline development is mostly due to a large industrial park north of Summerville at the western extent of the Study Area.



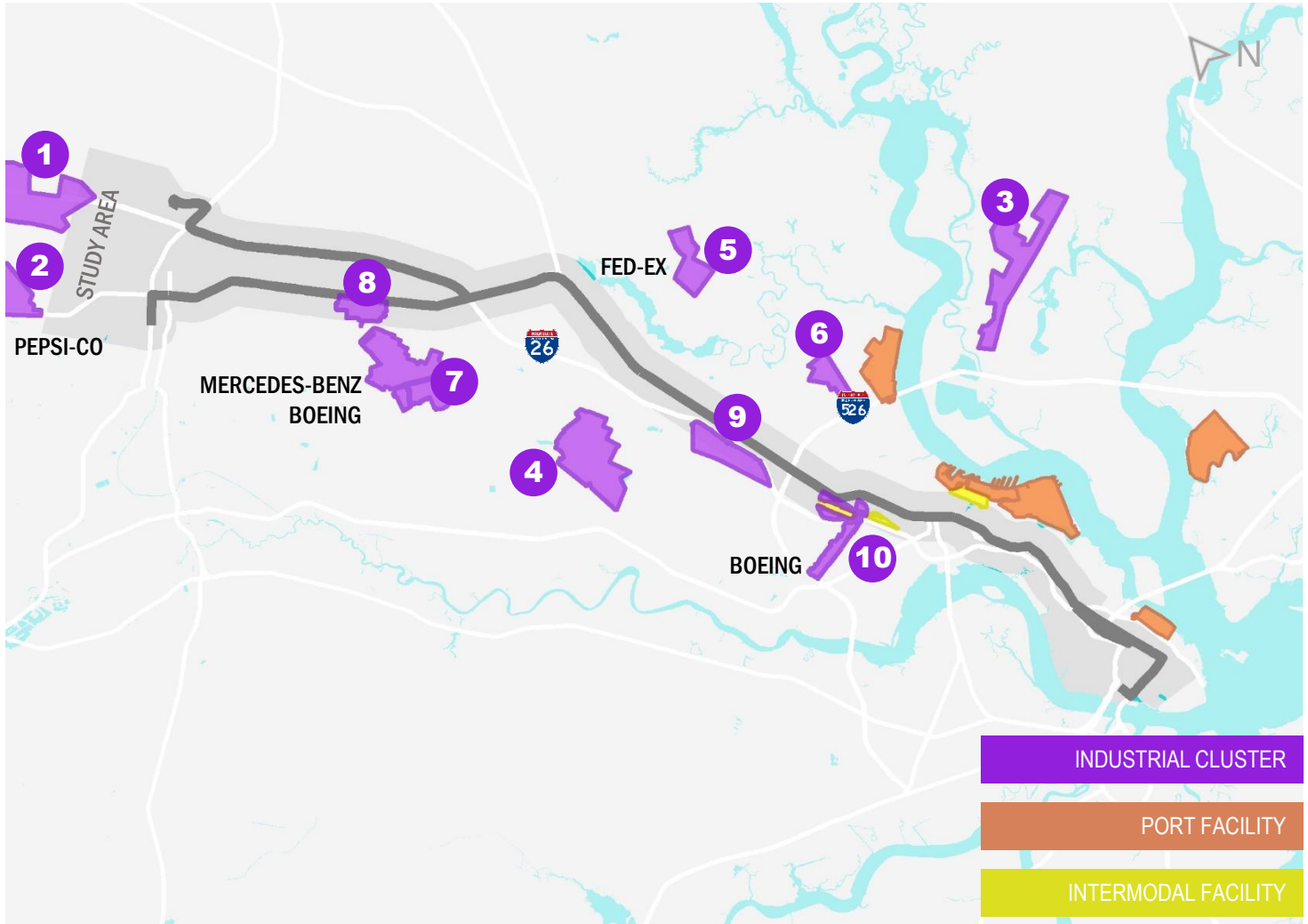
Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Industrial – Clusters

Most of the new industrial development is occurring in clusters outside the Study Area

Existing industrial inventory can be typologized into clusters due to land use patterns and colocation preferences. The largest industrial clusters, Charleston Trade Center and Eastport Commerce Center, have added significant inventory since 2009.

Of the three clusters within the Study Area, not only are they the smallest by total square footage, but each has added very little inventory since 2009, suggesting that they are largely built-out.

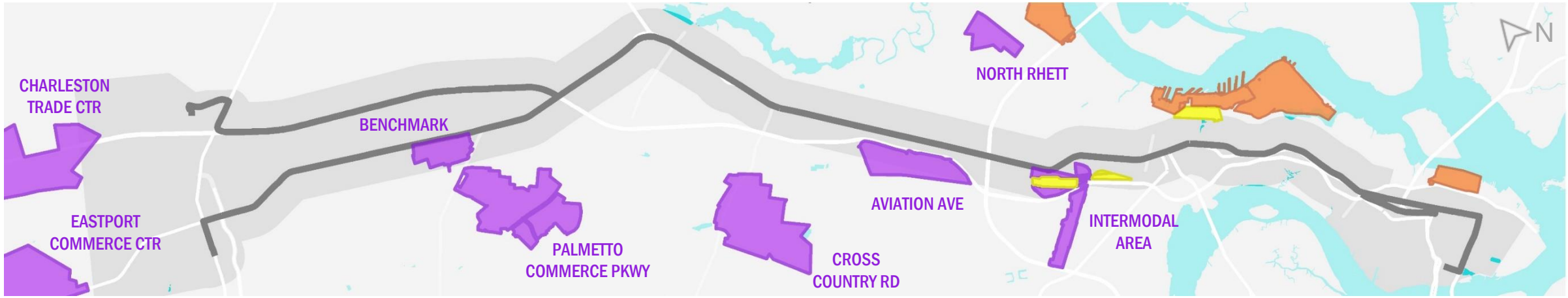


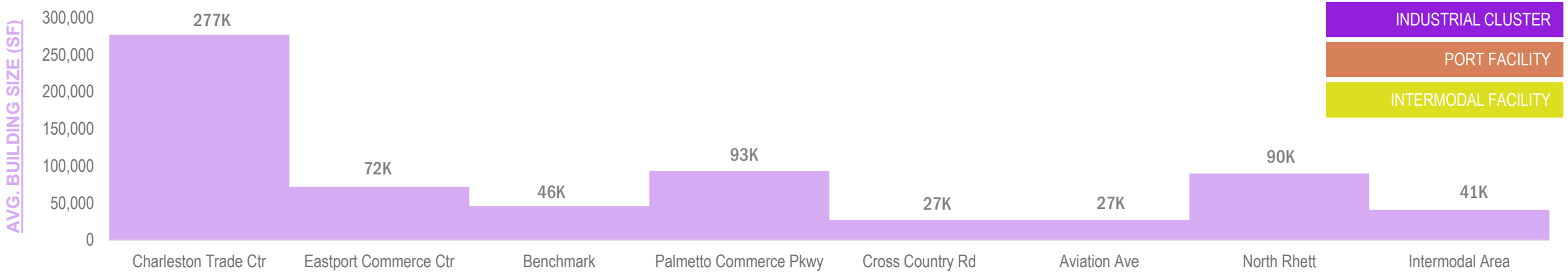
Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Industrial – Average Building Size by Cluster

Charleston Trade Center is the largest industrial park, directly to the west of the Study Area

The three major industrial clusters within the Study Area are among the smallest in the region by total square footage, and they also have among the smallest average building size of any cluster. The average building sizes in Benchmark, Aviation Ave, and Intermodal Area are 46k, 27k, and 41k, respectively. Very large distribution and manufacturing hubs in the Charleston Trade Center, Palmetto Commerce Parkway, and North Rhett result in the largest average building sizes per cluster.





Source: CoStar (data as of 09/2019); Esri; HDR; SB Friedman

Industrial – Sample Typologies

All industrial typologies have a relatively large land footprint and low-density format

Across the region, industrial space is primarily occupied by distribution, manufacturing, or warehousing uses. While manufacturing and distribution spaces are of comparable average size in the region, warehousing spaces are significantly smaller.

The main difference between each of the three major typologies is employment density. Manufacturing spaces have the highest employment densities, at approximately one employee per 500 square feet of space. Employees in distribution properties occupy about 1,500 square feet each, and warehousing employees occupy up to 2,500 square feet each.

	BUILDING FORM	SF PER PROJECT	FAR	SF PER EMPLOYEE	PARKING RATIO
DISTRIBUTION		80-500K	0.17-0.37	1,500	<1.0 Surface
MANUFACTURING		90-450K	0.17-0.43	550	<1.0 Surface
WAREHOUSE		15-80K	0.13-0.37	2,500	<2.0 Surface

PROJECTS:
Distribution: 1892 Anfield Rd (near Aviation Ave cluster)
Manufacturing: 113 Isaac Way (Eastport Commerce Center cluster)
Warehouse: 4951 Rivers Dt (Aviation Ave cluster)

Parking ratio is the number spaces per 1,000 SF of industrial

Source: CoStar (data as of 09/2019); SB Friedman

Industrial – Supply Takeaways

Industrial inventory is growing rapidly within the region, but minimally within the Study Area

SHARE

11-15%
of existing and pipeline industrial inventory in the region is in the Corridor Study Area

DELIVERIES

170K
industrial square feet delivered annually post-2009 in the Corridor Study Area

TYPE

Warehouse and Distribution
are the primary industrial uses in the Corridor Study Area

SCALE

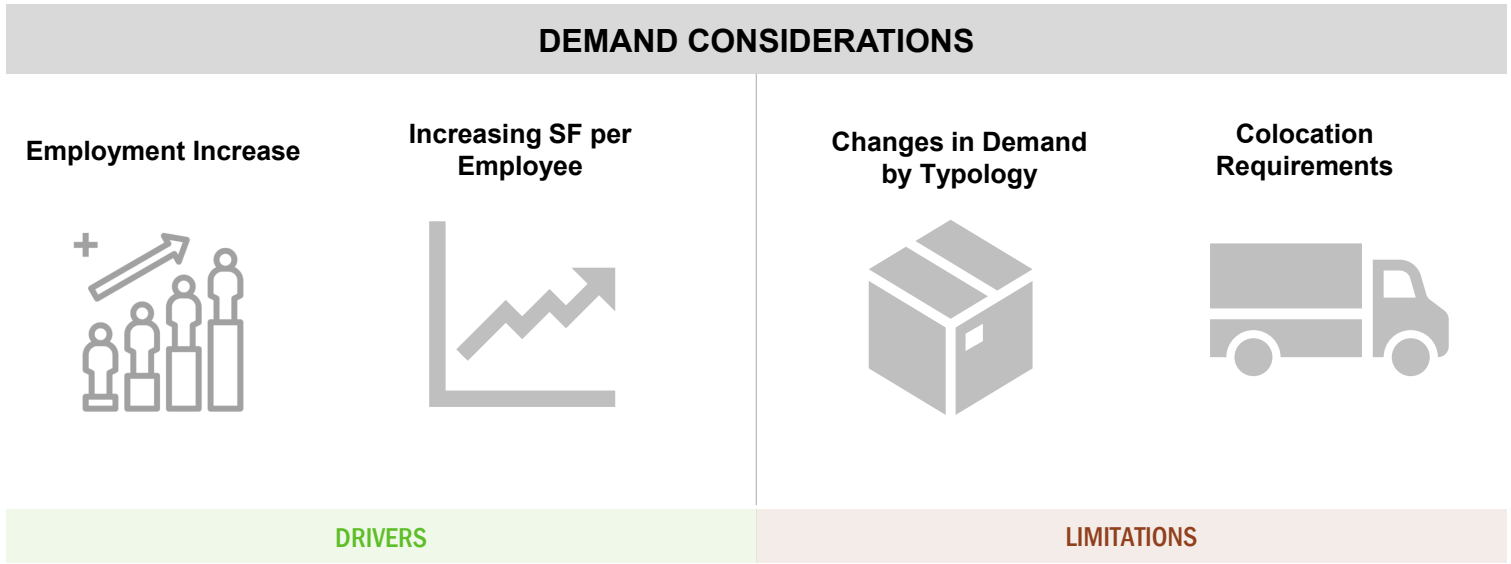
25,000-45,000
square feet per project for recent new deliveries in clusters intersecting the Corridor

Industrial – Demand Considerations

Industrial demand projections are based on four key data assumptions, including:

1. Employment Increase – projected industrial employment, based on BCDCOG 2040 projections
2. Square Feet Per Employee Increase – as automation and technology capability improve, fewer industrial employees will be required to accommodate the same space
3. Changes in Demand by Typology– demand varies by industrial product type, which all have different space requirements
4. Colocation Requirements– tendency of industrial to cluster around existing industrial parks and, in some cases, near customers or co-dependent businesses

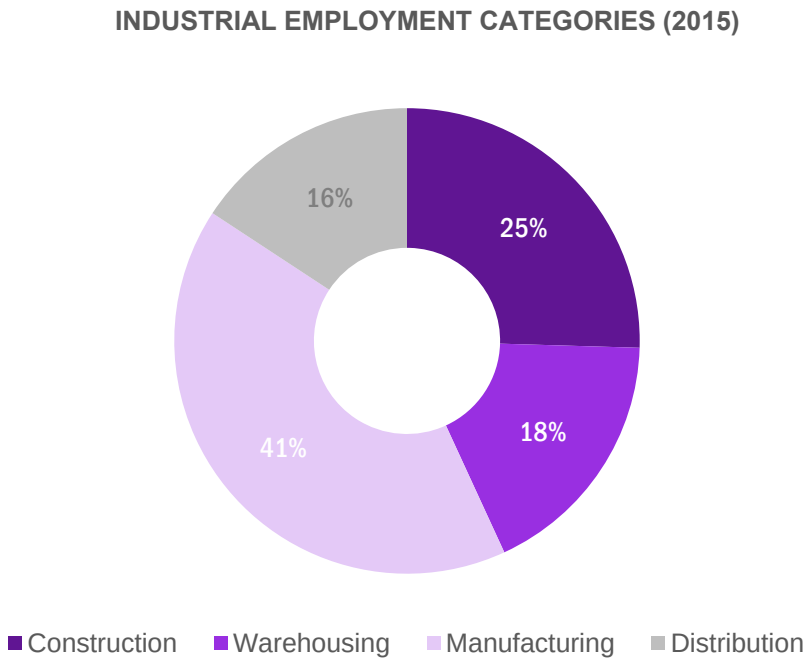
Each of the core assumptions were incorporated into an SB Friedman model projecting industrial demand.

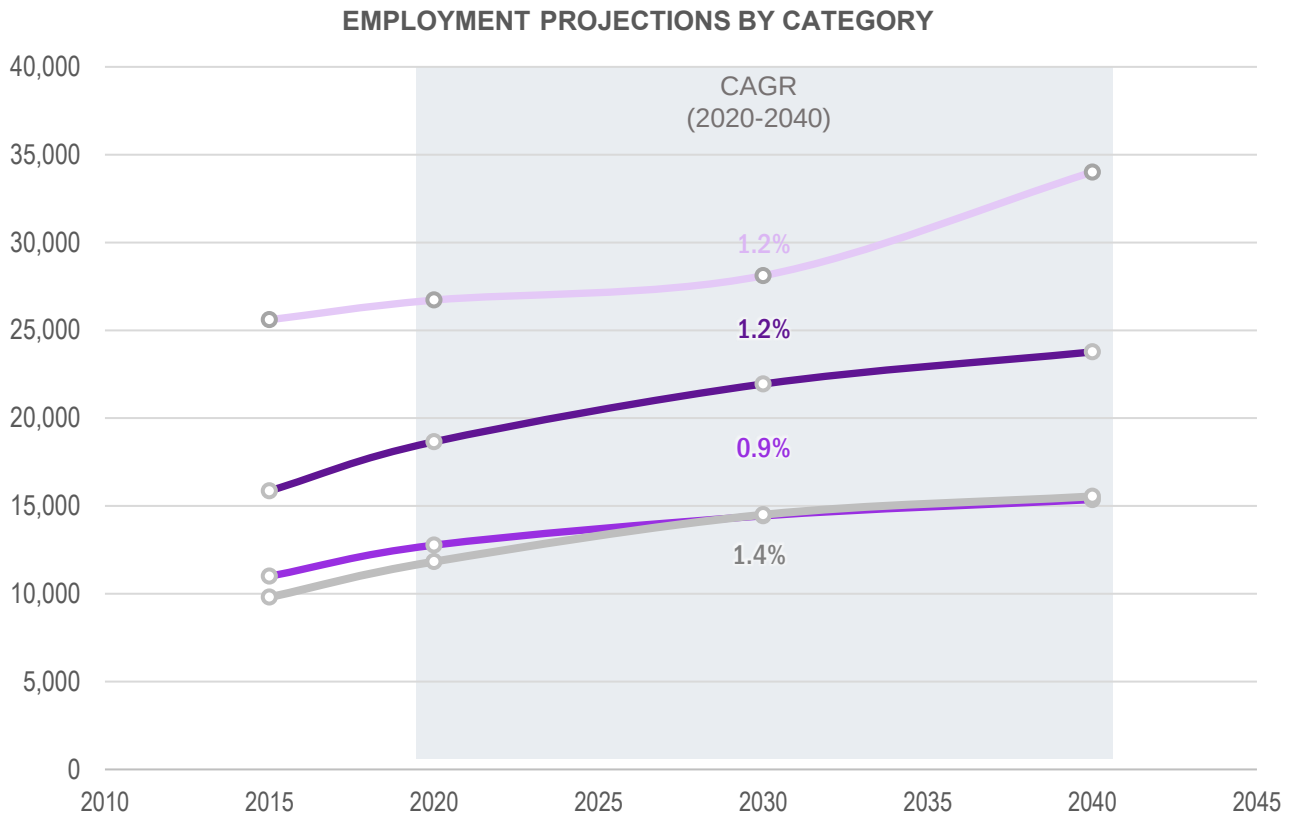


Industrial – Employment Projections

Distribution jobs have the highest growth rate of all industrial categories

The BCD region is home to several major industrial employers. BCDCOG industrial employment projection categories include jobs in construction, manufacturing, warehousing, and distribution. Jobs in industrial employment categories are projected to increase between 0.9% and 1.4% annually through 2040. Consistent with the national trend of the rise in distribution facilities, distribution jobs have the highest projected CAGR; at 1.4%.



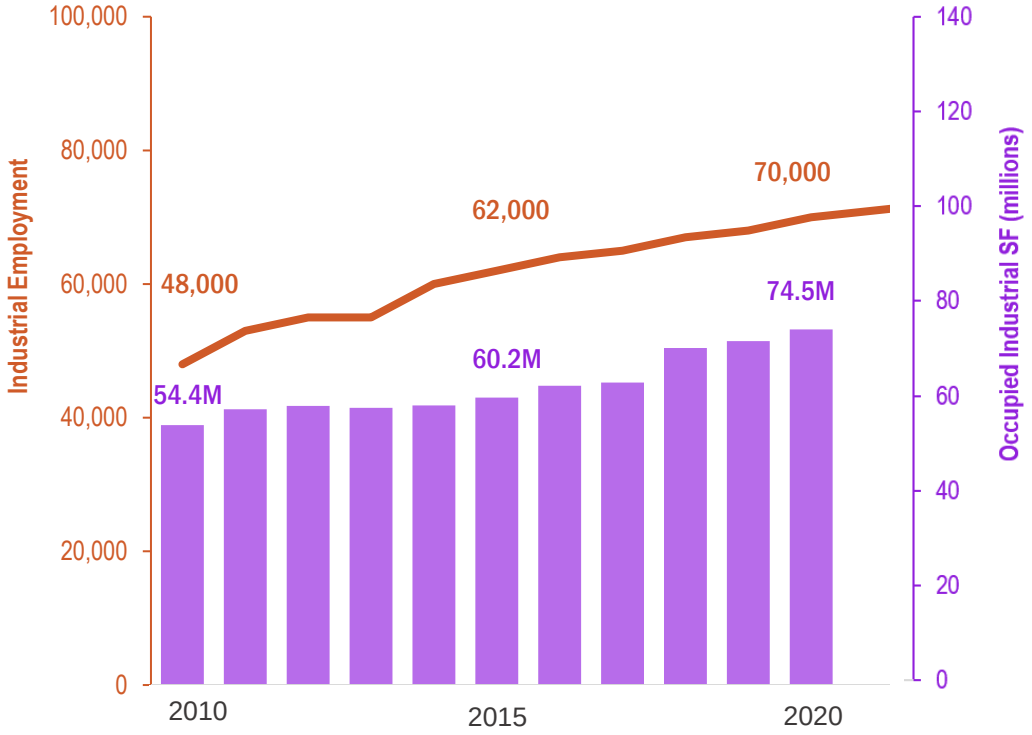


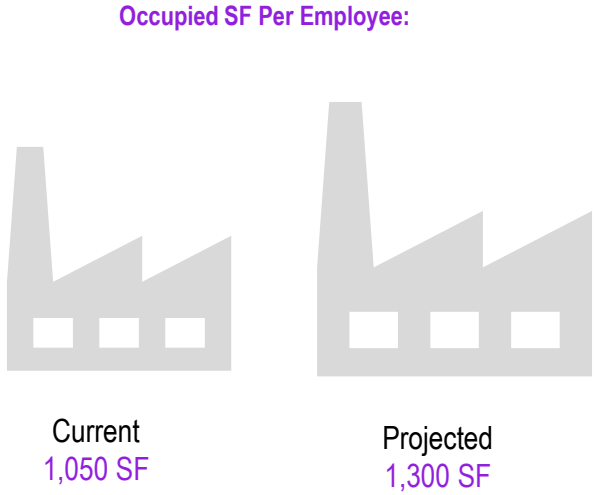
Source: BCDCOG Charleston Area Transportation Study; SB Friedman

Industrial – Regional Demand Assumptions

Employment growth drives projected occupied square footage

Between 2010 and 2020, regionwide industrial employment increased from 48,000 employees to 70,000 employees. During this time, occupied industrial square footage increased from 54.4 million square feet to 74.5 million square feet. Future employment growth drives the projected demand for additional occupied industrial space through 2040. As employment is projected to increase, the average occupied square feet per employee is also projected rise; from 1,050 square feet to 1,300 square feet per employee. The increased square foot per employee ratio reflects the rise in technology and automation expected in distribution and warehouse centers.



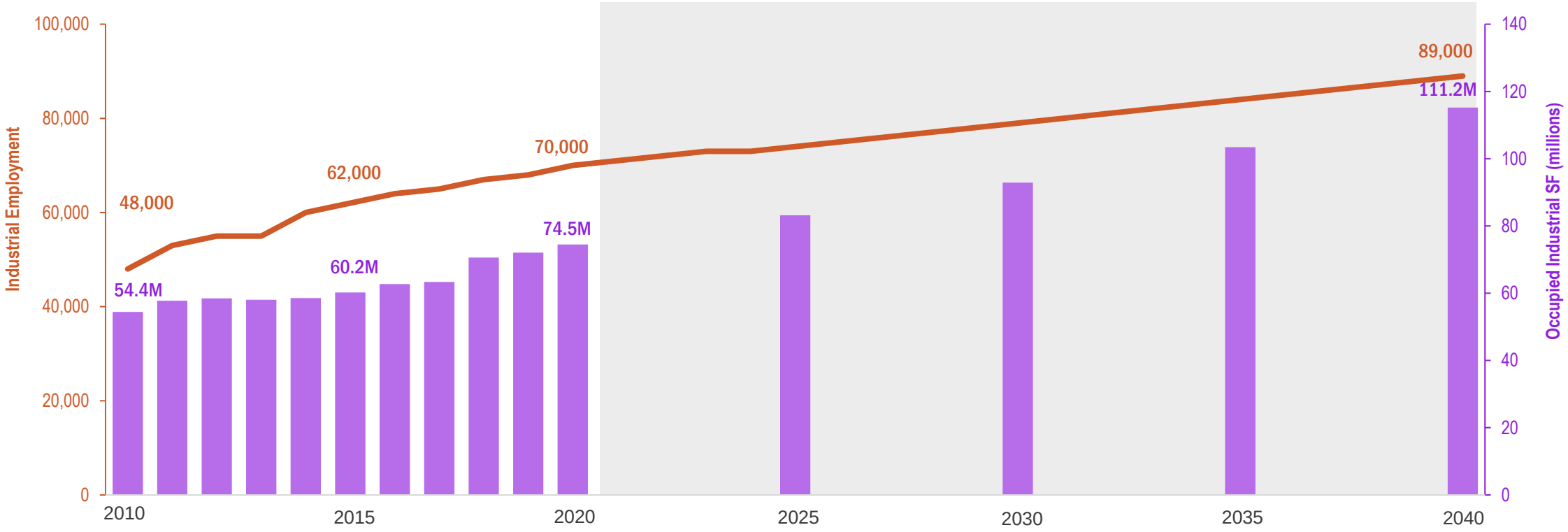


Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Industrial – Regional Demand Assumptions

Employment growth drives projected occupied square footage

Between 2020 and 2040, BCDCOG projects industrial employment will increase from 70,000 employees to 89,000. SB Friedman projects the increase in employment will result in a regional increase in overall occupied industrial square footage, from 74.5M square feet in 2020 to 111.2M square feet in 2040.

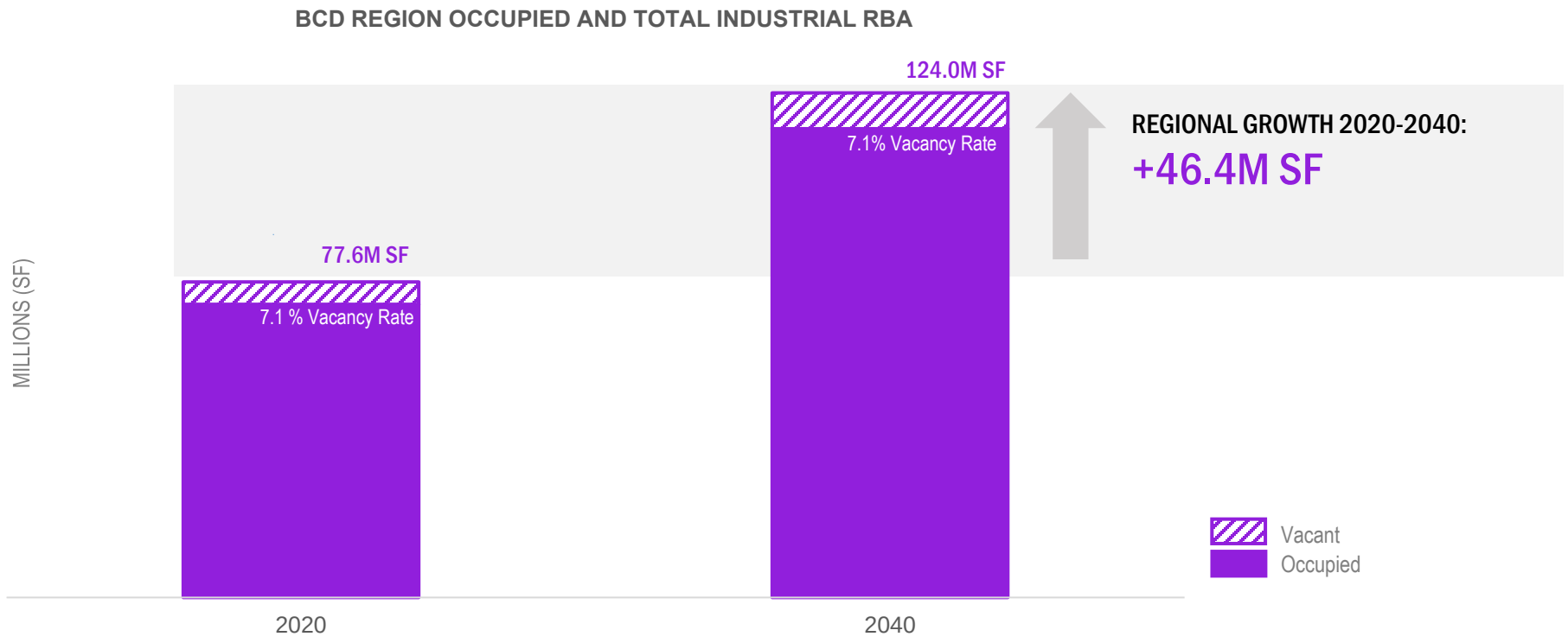


Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

Industrial – Regional Demand Projections

SB Friedman projects an increase of 46.4M SF of industrial in the region by 2040

Employment growth and space productivity trends are projected to drive the need for an additional 46.4 million square feet of industrial square feet between 2020 and 2040, increasing the overall regionwide inventory from 77.6 million square feet to 124.0 million square feet by 2040.

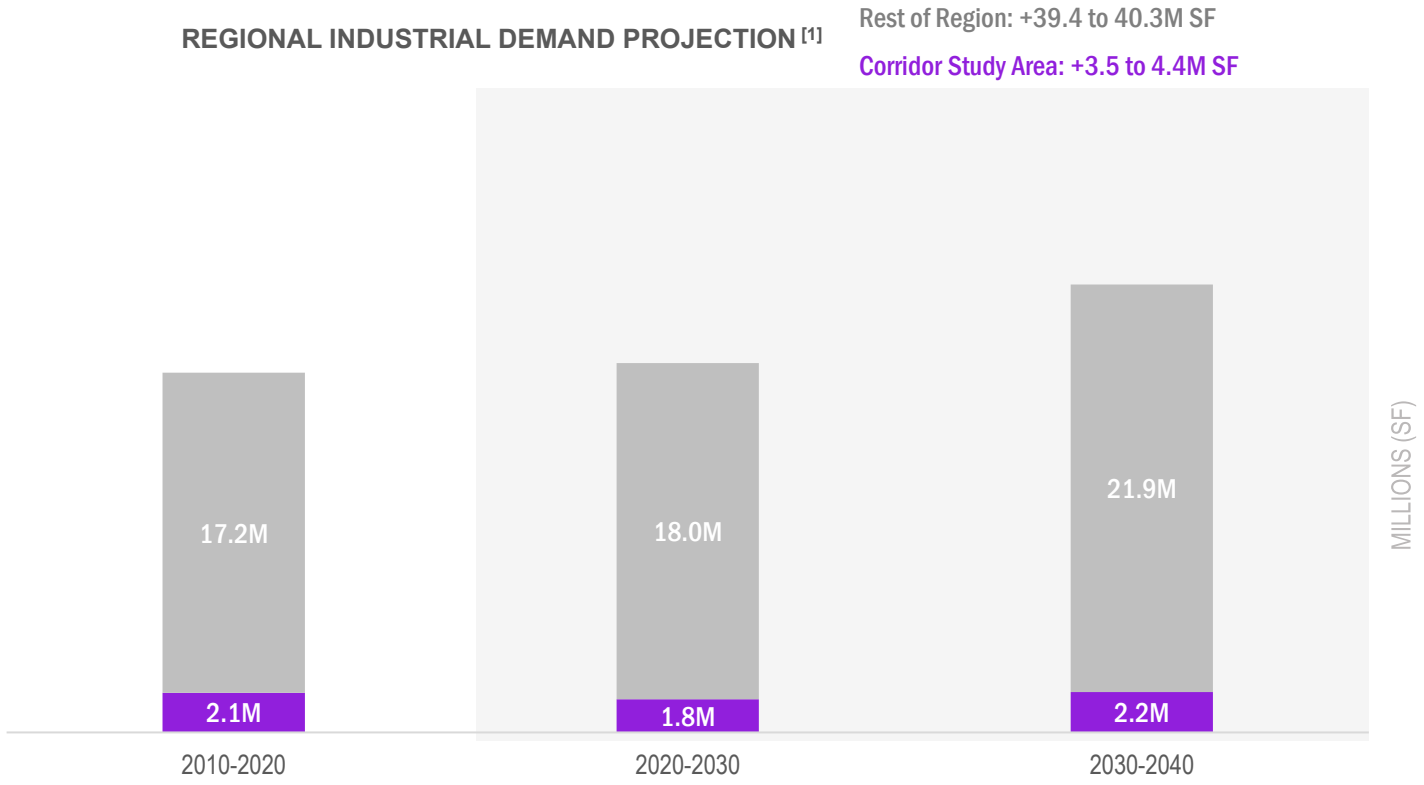


Source: CoStar (data as of 09/2019); Esri; SB Friedman

Industrial – Study Area Demand Capture

The Corridor Study Area will capture approx. 8-10% of regional industrial development

The Study Area is projected to capture between 8% and 10% of regional industrial 2040 demand. Given this capture rate, the Corridor Study Area is projected to absorb 3.5 million to 4.4 million square feet of industrial development over the next 20 years.



[1] Reflects average of low and high capture scenarios

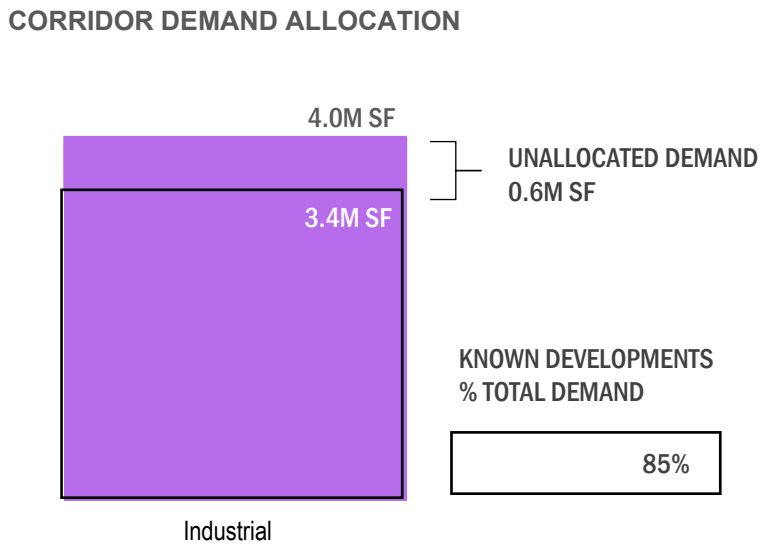
Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 09/2019); Esri; LEHD; SB Friedman

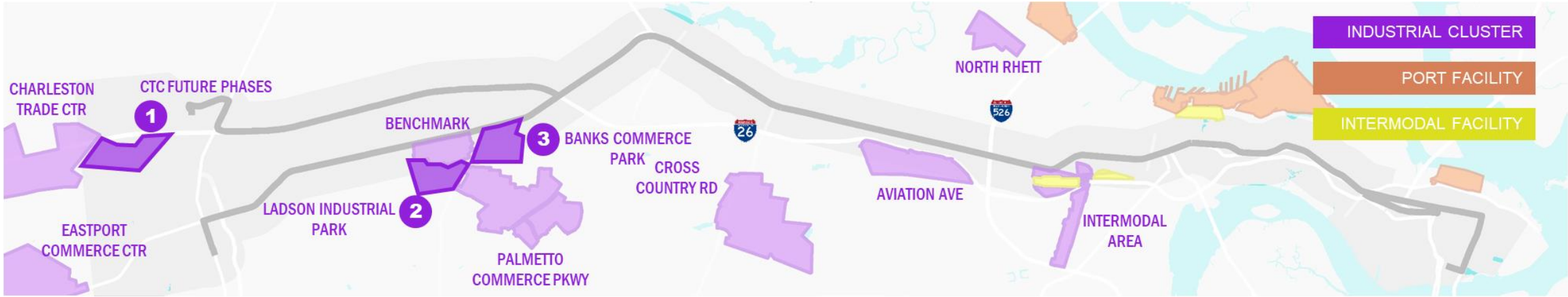
Industrial – Demand Projections

New supply from Known Development Sites would absorb 85% of projected demand

Currently, there is approximately 3.4 million square feet of industrial space planned or actively under construction in the Study Area. The development areas are located within three major planned industrial clusters: the future phases of the Charleston Trade Center, Ladson Industrial Park, and Banks Commerce Park. The land available in these three developments could accommodate 85% of the Study Area demand.

600,000 square feet of demand remains unallocated within the Study Area. The remaining development will likely be scattered smaller-scale industrial.





Source: BCDCOG Charleston Area Transportation Study; Charleston Industrial; CoStar (data as of 09/2019); Esri; HDR; LEHD; SB Friedman

Hospitality

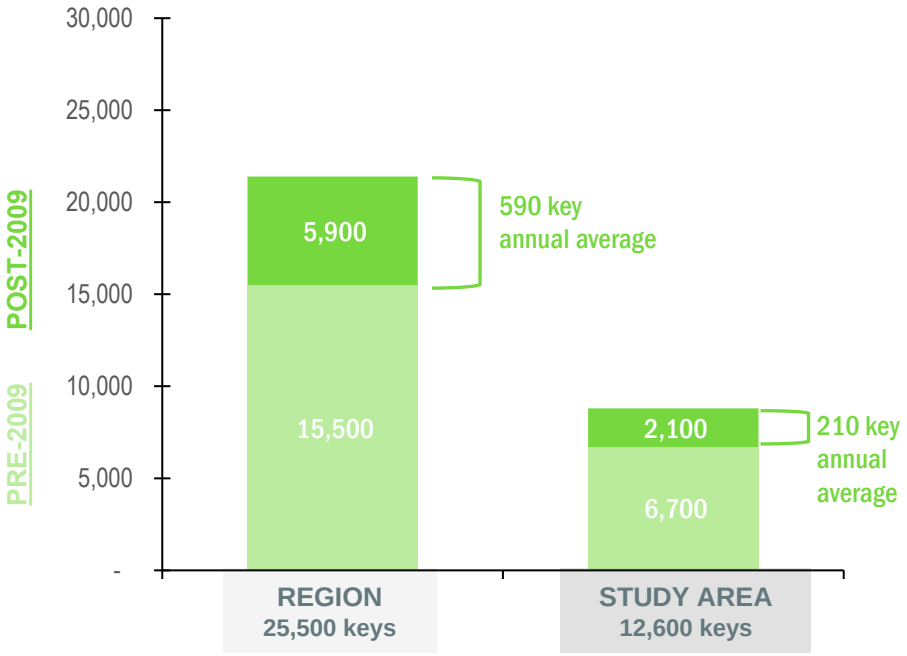
EXISTING INVENTORY | NEW DEVELOPMENT | REGIONAL CLUSTERS

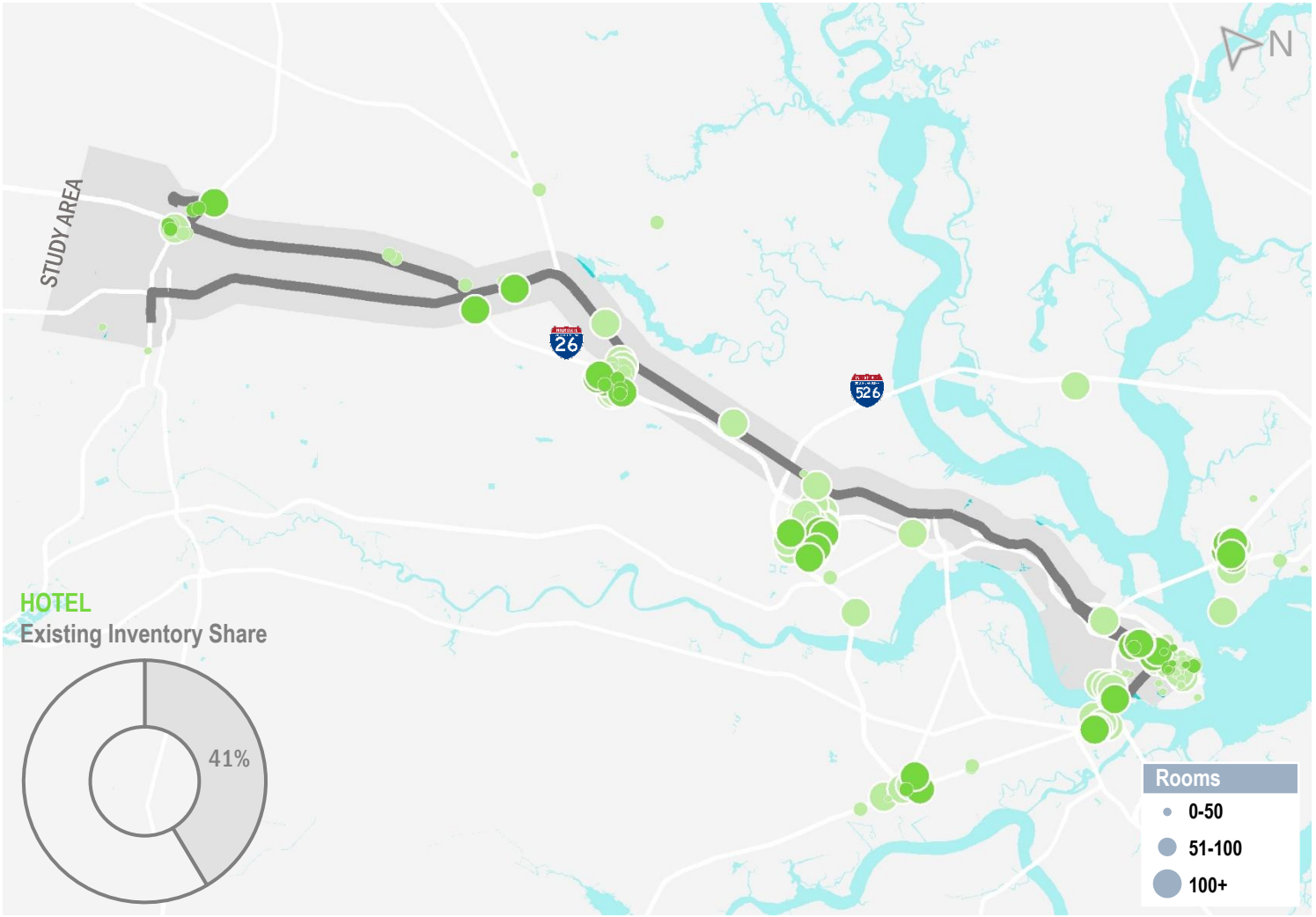
Hospitality – Existing Inventory[1]

Approximately 41% of existing hotel inventory is in the Corridor Study Area

The region has more than 25,000 existing hotel rooms and approximately 12,600 are located within the Study Area. Accordingly, the share of existing keys (or number of rooms) within the Study Area is 41%.

On average, the region has added 590 keys annually since 2009; 210 of which were located within the Study Area.





[1] If STR, CoStar, and the Study did not have a room count for the hotel, it was removed from the analysis

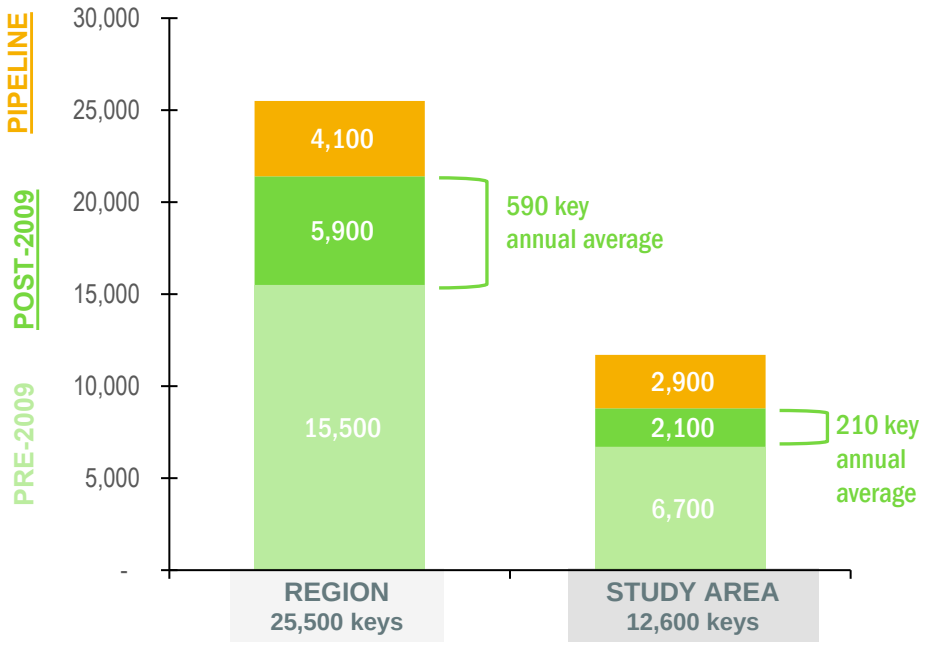
Source: City of Charleston 2016 Peninsula Hotel Study; CoStar (data as of 12/2019); Esri; SB Friedman; STR

Hospitality – Post-2009 & Pipeline

Approximately 50% of new and pipeline development is in the Corridor Study Area

There are 4,100 hotel keys in the pipeline regionwide, 2,900 of which are located within the Study Area.

Combining hotels built since 2009 and the pipeline inventory, 50% of the 'newer' product is located within the Study Area. More than half of the new and pipeline product in the region is located within the Study Area.

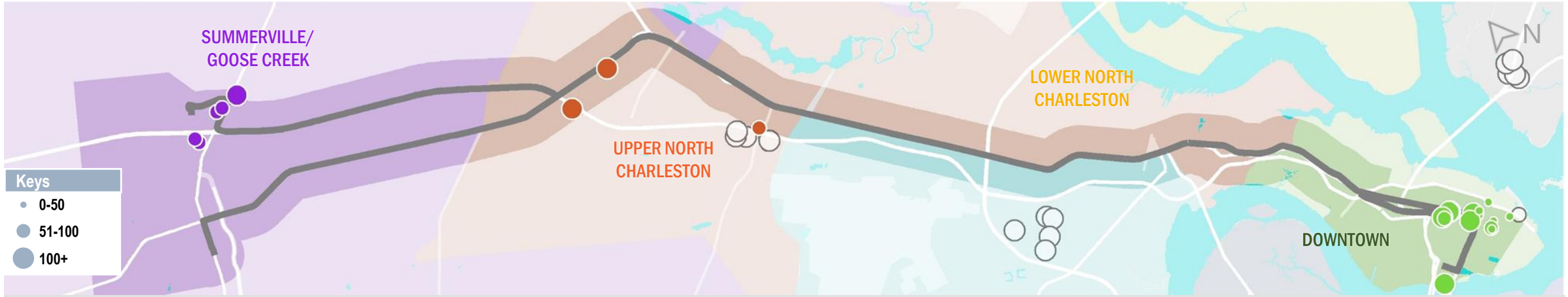


Source: City of Charleston 2016 Peninsula Hotel Study; CoStar (data as of 12/2019); Esri; SB Friedman; STR

Hospitality – New Development by Submarket

There are clusters of new hotel development on either end of the Corridor

There have been 2,100 new hotel keys delivered in the Study Area since 2009. Recent hotel development within the Study Area has clustered around Nexton and the Peninsula. Very little hotel development has occurred across the remainder of the Study Area, although development has around the airport just outside the boundary.



2,100 NEW HOTEL KEYS IN THE CORRIDOR STUDY AREA SINCE 2009

22%	15%	63%
476 KEYS	325 KEYS	1,341 KEYS

Source: City of Charleston 2016 Peninsula Hotel Study; CoStar (data as of 12/2019); Esri; SB Friedman; STR

Hospitality – Supply Takeaways

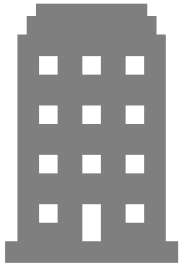
Existing development patterns are indicative of a strong hotel market along the Study Area

SHARE

45-50%
of existing and pipeline hotel inventory in the region is in the Corridor Study Area

CLUSTERS

63%
of hospitality development built post-2009 in the Corridor Study Area is found Downtown



DELIVERIES

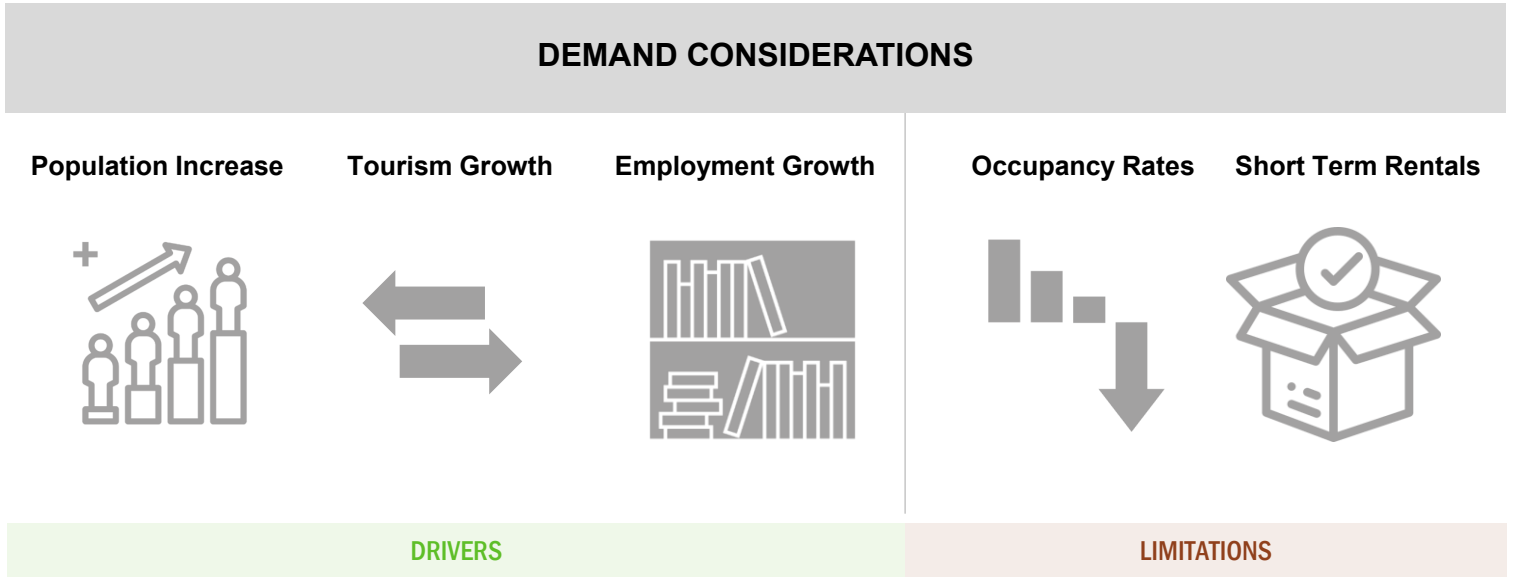
210
hotel keys were added in the Corridor annually from 2009-2019

Hospitality – Demand Considerations

Hospitality demand projections are based on five key data assumptions, including:

1. Population Increase– projections of future population growth provided by the BCDCOG
2. Tourism Growth– projections of future tourism growth, based on enplanement data
3. Employment Growth– projected employment, based on BCDCOG 2040 projections
4. Occupancy Rates– typical hotel occupancy, adjusting to normalize the presently high occupancy rates
5. Short Term Rentals– A growing preference of travelers to stay in short term rentals rather than rather than hotels

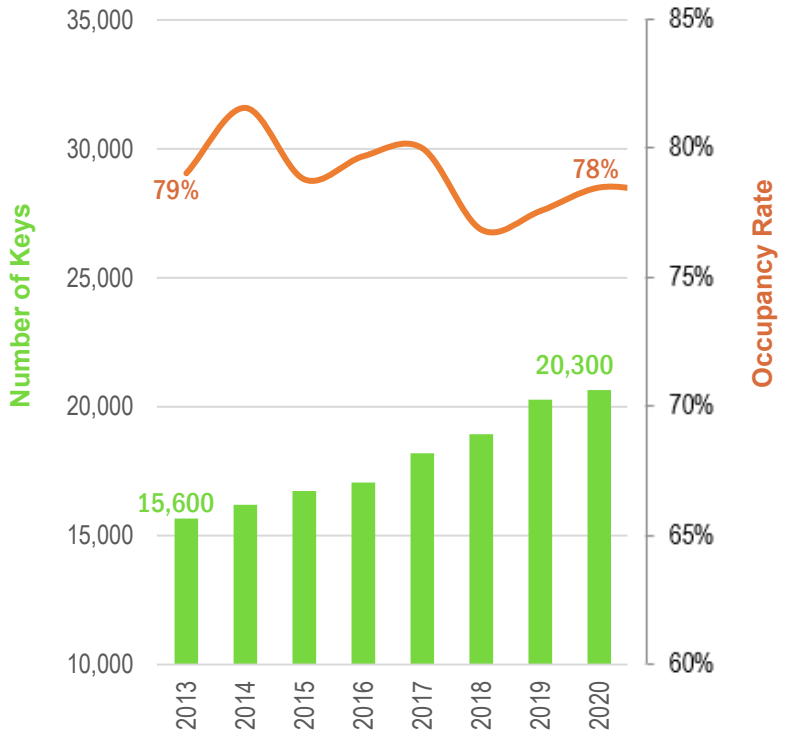
Each of the core assumptions were incorporated into an SB Friedman model projecting hospitality demand.



Hospitality – Key Demand Assumptions

Occupancy rates and historic employment growth are key drivers of hotel demand

Between 2013 and 2020, hotel occupancy rates hovered around 80% while population, employment, and tourism increased. During this time, the number of hotel rooms increased from 15,600 keys to 20,300 keys. Future population, employment, and tourism growth trends drive the projected demand for hotel keys, while at the same time, the short-term rental market share is expected to increase, absorbing a portion of the commercial hospitality market demand.

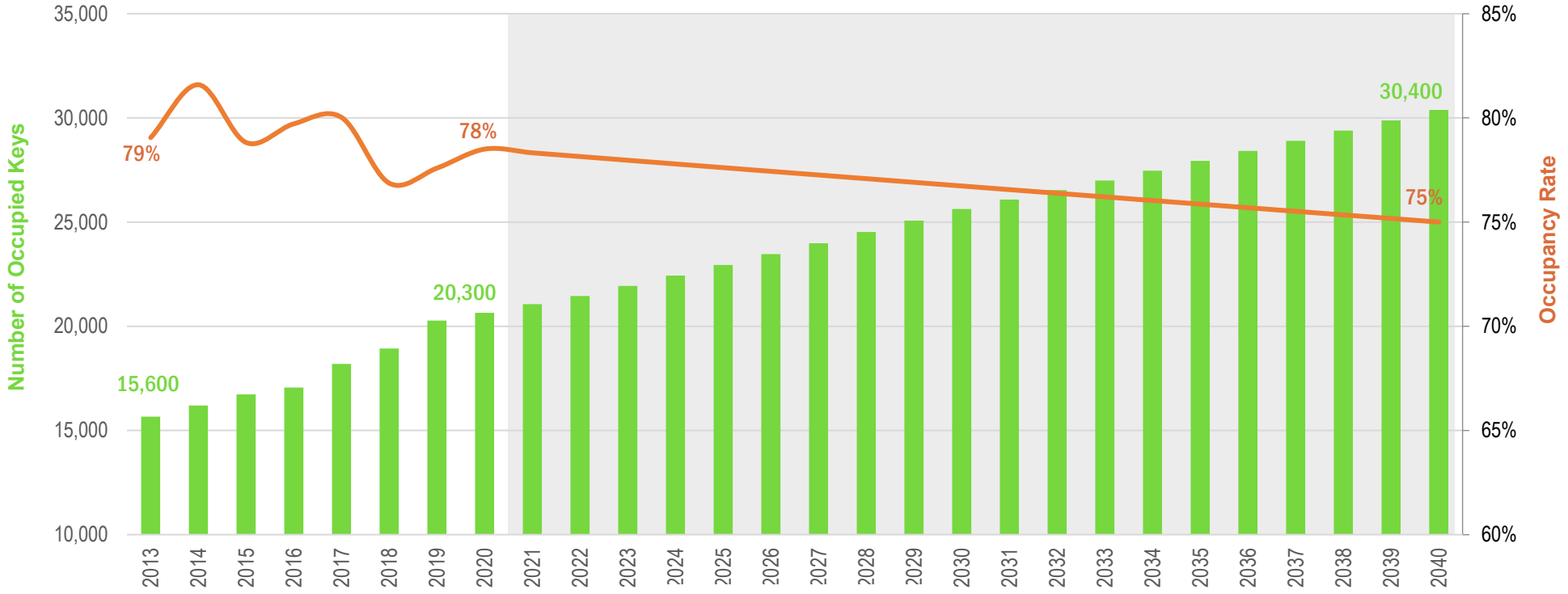


Source: City of Charleston 2016 Peninsula Hotel Study; CoStar (data as of 12/2019); Esri; SB Friedman; STR

Hospitality – Key Demand Assumptions

Occupancy rates and historic employment growth are key drivers of hotel demand

The BCDCOG projects overall employment will increase from nearly 420,000 employees in 2020 to nearly 610,000 employees in 2040. This employment growth, which is correlated with the hospitality industry growth, and accounting for shifting occupancy rates over time results in demand for 30,400 hotel keys regionwide in 2040.

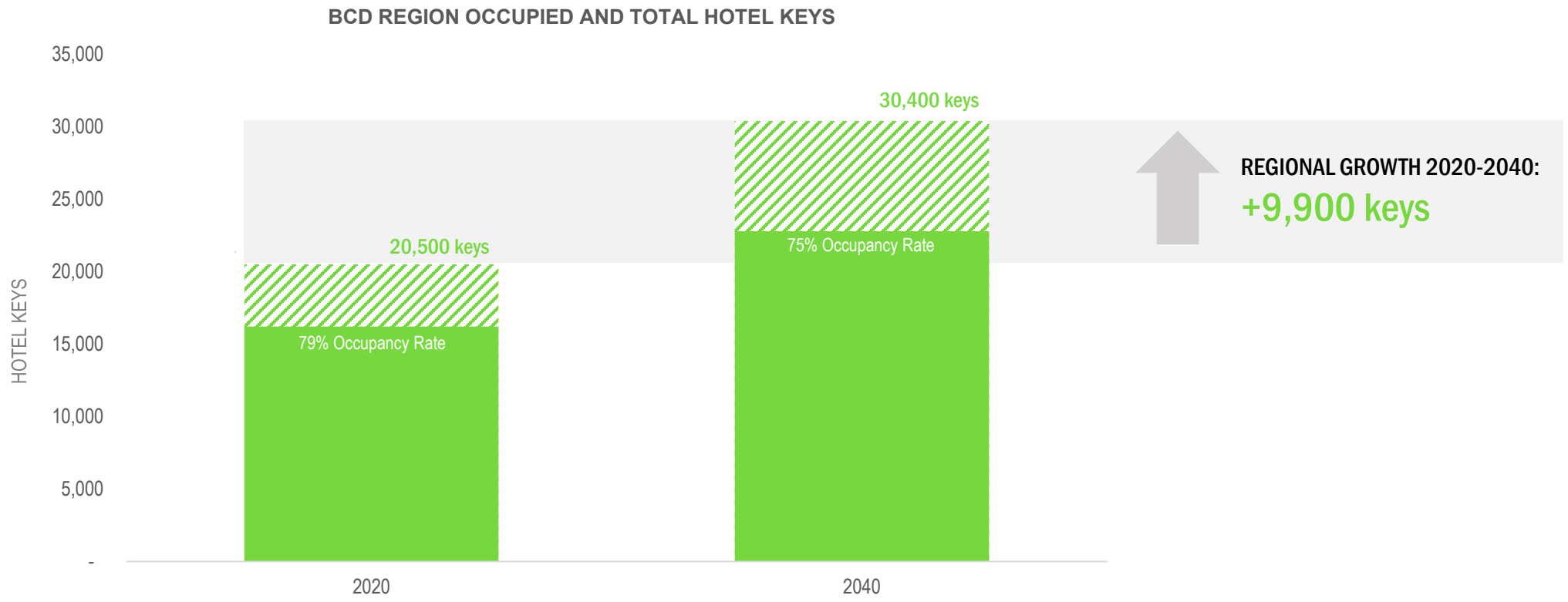


Source: City of Charleston 2016 Peninsula Hotel Study; CoStar (data as of 12/2019); Esri; SB Friedman; STR

Hospitality – Regional Demand Projections

Hotel rooms are projected to increase by nearly 10,000 keys over the next 20 years

Given projected population and employment growth and adjusting for the impact of short-term rentals, SB Friedman projects total demand for an additional 9,900 hotel keys through 2040, increasing the total regional inventory from 20,500 keys to 30,400 keys.

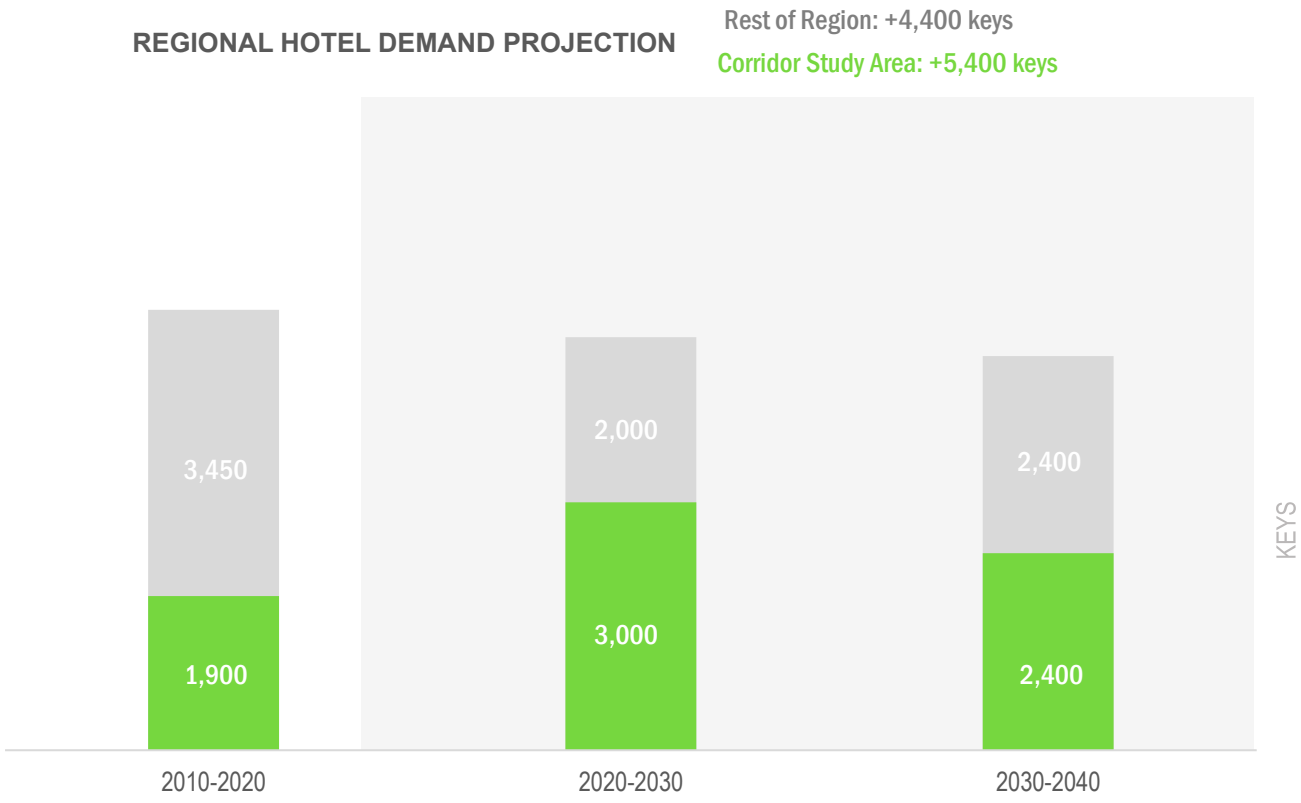


Source: City of Charleston 2016 Peninsula Hotel Study; CoStar (data as of 12/2019); Esri; SB Friedman; STR

Hospitality – Study Area Demand Capture

The Corridor Study Area will capture approx. 50-60% of regional hotel development

The Study Area is projected to capture approximately 50-60% of new regional hotel development based on historic capture rate trends. Based on the projected capture rate, the Study Area has demand for approximately 5,400 new hotel keys from 2020 to 2040.



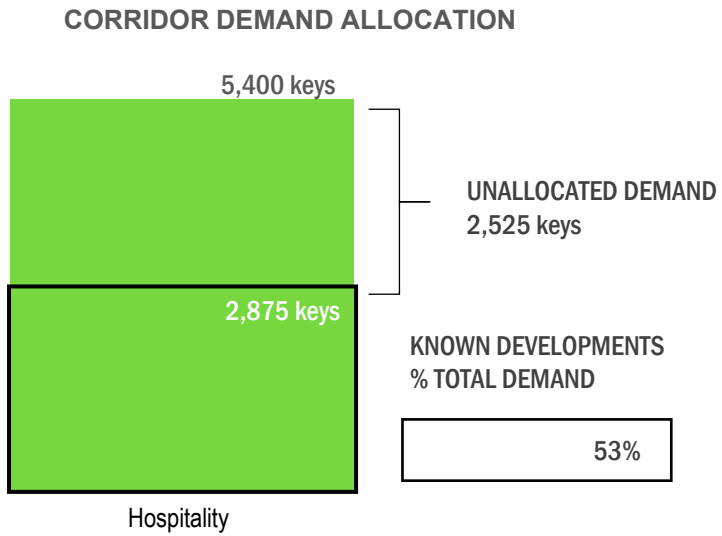
Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 12/2019); Esri; LEHD; SB Friedman

Hospitality – Demand Projections

New supply from Known Developments would absorb 53% of projected demand

Currently, there are approximately 2,875 hotel keys planned or under construction within the Study Area, accounting for 53% of the projected 2040 demand. This leaves 2,525 keys as unallocated demand remaining to be absorbed within the Study Area.

Unallocated hotel development is likely to occur around existing clusters, on the peninsula and near employment centers.



Source: Census Public Use Microdata; CoStar (data as of 12/.2019); SB Friedman

Real Estate Market Conclusions

Corridor Study Area Demand Projections

After accounting for Known Developments, demand remains to be allocated

	RESIDENTIAL	RETAIL	OFFICE	INDUSTRIAL	HOTEL
CORRIDOR STUDY AREA DEMAND	19,800 units (SF) 22,800 units (MF)	4.1M SF	6.9M SF	4.0M SF	5,400 keys
KNOWN DEVELOPMENT SITES	4,200 units (SF) 4,100 units (MF)	1.3M SF	2.6M SF	3.4M SF	2,875 keys
REMAINING DEMAND TO BE ALLOCATED	15,600 units (SF) 18,700 units (MF)	2.8M SF	4.3M SF	0.6M SF	2,525 keys

Source: BCDCOG Charleston Area Transportation Study; CoStar (data as of 08/2019-12/2019); Esri; LEHD; SB Friedman

LIMITATIONS OF OUR ENGAGEMENT

Our report is based on estimates, assumptions and other information developed from research of the market, knowledge of the industry and meetings during which we obtained certain information. The sources of information and basis of the estimates and assumptions are stated in the report. Some assumptions inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will necessarily vary from those described in our report and the variations may be material.

The terms of this engagement are such that we have no obligation to revise the report or to reflect events or conditions which occur subsequent to the date of the report. These events or conditions include without limitation economic growth trends, governmental actions, additional competitive developments, interest rates and other market factors. However, we are available to discuss the necessity for revision in view of changes in the economic or market factors affecting the proposed project.

Our study did not ascertain the legal and regulatory requirements, including zoning, other state and local government regulations, permits and licenses. No effort was made to determine the possible effect on this project of present or future federal, state or local legislation, including any environmental or ecological matters