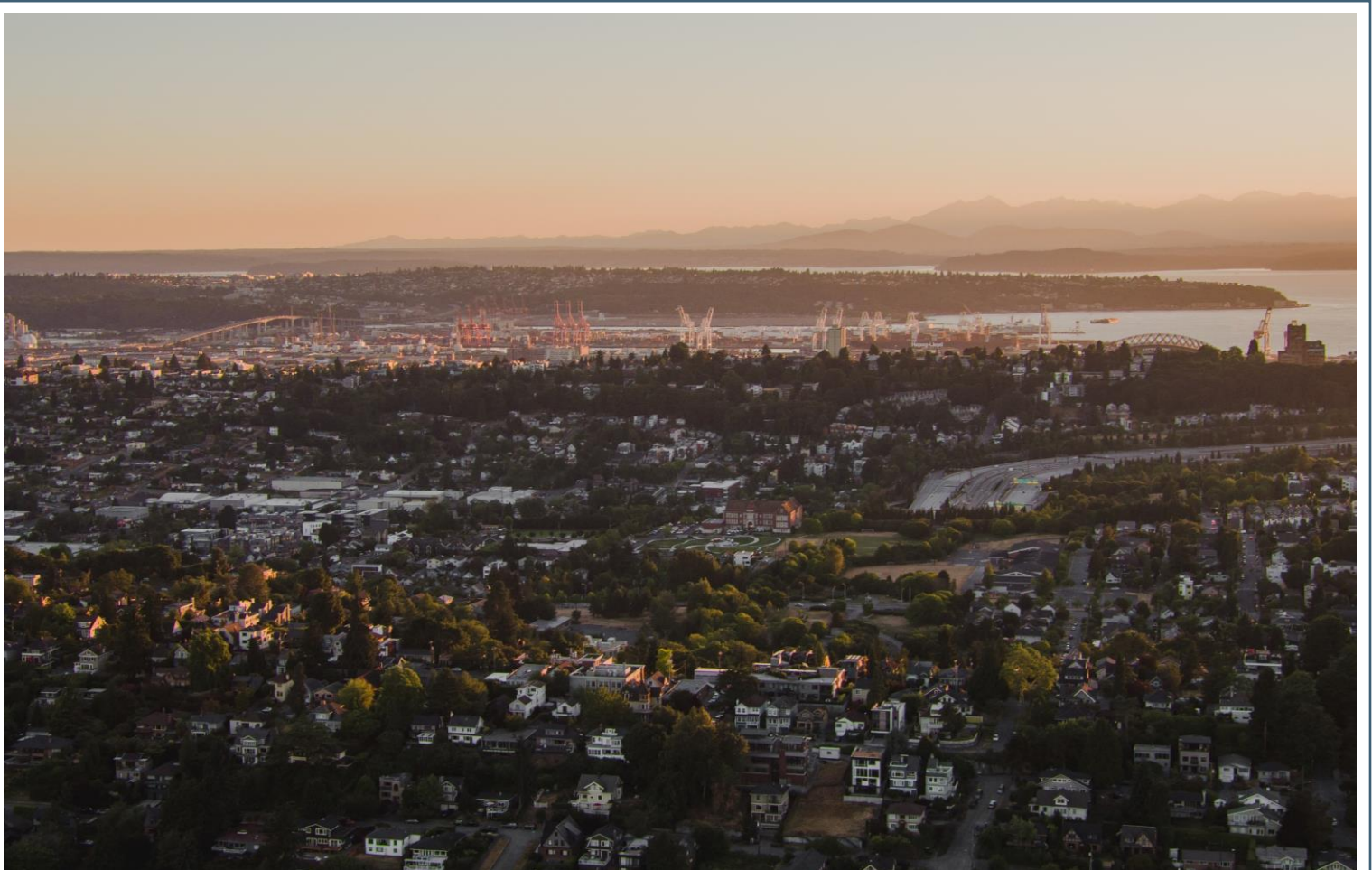


City of Seattle

# Market Rate Housing Needs and Supply Analysis



APRIL 2021





STRATEGY ■ ANALYSIS ■ COMMUNICATIONS

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# Executive Summary

The City of Seattle is experiencing multiple challenges in achieving an adequate supply of housing to meet current and future needs. Nearly 46,000 households are spending more than half of their incomes on housing costs, which classifies them as severely cost-burdened by federal standards. Many others have been priced out of Seattle altogether due to rapidly rising rents and housing prices. This results in the displacement of long-term residents as well as the exclusion of workers who must commute long distances to jobs in the city.

The great majority of households in Seattle live in market rate housing—units that are *not* income/rent-restricted – apartments, condominiums, detached and attached homes developed by the private sector with prices and rents set by the market. Tackling Seattle’s housing challenges requires understanding which kinds of housing needs are being met by today’s housing market and which needs are falling through the cracks.

In 2020, the City secured a grant from the Washington State Department of Commerce under a program established by HB 1923. Seattle will use this grant to develop strategies that focus on enhancing the supply, diversity, and affordability of market rate housing. That work will be supported by an Analysis of Housing Needs and Supply, which is the focus of this report.

As a component of the work pursuant to the HB 1923 grant, this study examines Seattle’s housing needs and supply, with an emphasis on the role of market rate housing production. It considers not only today’s housing market, but also projected supply and demand over the next 25 years under two different growth scenarios. Both scenarios adopt conservative assumptions to avoid overstating future affordability challenges. If housing costs continue to rise at the rapid pace seen in recent years, future affordability challenges could be even worse than projected.

The purpose of this study is to estimate potential housing supply shortages by housing types and affordability levels. The findings can inform the development of strategies to encourage market rate housing production that is more closely aligned with the housing needs of current and potential future Seattle residents.

## KEY FINDINGS

Seattle’s housing market is complex. Shortages in one kind of housing can have spill-over effects in other parts of the market. This section begins with a discussion of findings that have broad implications throughout the housing market. Then, Exhibit 1 summarizes the impacts on households by level of income.

- **Despite a historic surge in new construction, housing supply is not keeping pace with demand.**  
The rate of new housing production in Seattle is higher than it has been in several decades. However, Seattle has been gaining jobs at an even faster pace. Between 2005 and 2019, Seattle would have needed to produce an additional 9,000 housing units to maintain its baseline ratio of jobs to housing units. This shortage of housing supply increases competition for each available unit, driving up rents and housing prices across the market.

- **Housing costs are increasing faster than incomes.**

The cost of housing – both homeownership and rental – is getting further out of reach for many

Seattle residents. Between 2010 and 2019, median home values in Seattle increased by 80% compared to an only 55% increase in the county median family income. Average rents also increased faster than incomes in most Seattle zip codes, with zip codes that had the lowest average rents in 2014 experiencing the fastest rent growth in the years following.

- **In the ownership market, housing supply has not kept pace with demand.**

During the past decade, Seattle experienced a rapid increase in higher income households. However, the city did not add significantly to its supply of ownership housing products. Much of the production of new single-family homes simply replaced existing older units, resulting in no net gain in supply. There has been very little condominium production, and townhomes construction has not kept up with demand. The resulting competition for ownership housing has been intense, driving up housing prices.

- **Seattle lacks sufficient capacity for “missing middle” ownership housing production.**

A recent preliminary study of urban growth capacity in Seattle found that only 12% of total capacity for housing development is in middle density zones, including residential small lot and lowrise zones, that are suitable for townhomes or multiplexes that have potential to provide a relatively lower cost entry point to family-sized ownership housing opportunities. This lack of sufficient capacity indicates Seattle will continue to see shortages of ownership housing opportunities in years to come if no actions are taken.

- **In the rental market, there is a shortage of rental units affordable and available to lower income households.**

Seattle has a surplus of over 9,000 rental units affordable at 80% of area median income (AMI) or below, compared to the total number of renter households with incomes at 80% of AMI or below.<sup>1</sup> However, after accounting for higher income households residing in a portion of these units, there is an effective *shortage* of nearly 21,000 rental units that are both affordable and available to households at 80% of AMI or below. Such “down renting” or residing in lower cost units that would otherwise be affordable to lower income households, is a common outcome of housing supply constraints, particularly a lack of ownership housing opportunities. As a result, many lower income households must either rent more expensive housing or look outside of the city for housing they can afford.

- **There are more than 34,000 low-wage workers commuting long distances to jobs in Seattle.**

Over 34,000 workers in jobs paying less than \$40,000 per year commute more than 25 miles from their homes to jobs located in Seattle. This is an indicator of workforce housing needs that are not being met in Seattle. Presumably, many of these workers were not able to find adequate affordable housing closer to their workplace. At this wage level, a full-time worker could only afford a 0-bedroom apartment in one of the lowest cost areas of the city. And this latent demand for workforce housing will continue to grow. Employment forecasts anticipate about 35,000 net new jobs in lower-wage occupations in Seattle by 2030.

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<sup>1</sup> Note, this approach to measuring a housing surplus or shortage has limitations. Most importantly, it doesn't account for deficits in homes affordable at lower levels of income (such as 30% or 50% of AMI), compared to the number of households in need. Therefore, BERK accounts for gaps in the housing supply in several ways, as described in the body of this report.

- **If trends continue, Seattle will become increasingly exclusive to higher income households.**

The growing population of higher income households in Seattle during the past decade has been paired with a net loss of households with incomes between 50% and 100% of AMI. One explanation for this change is the rapid growth in market rate housing costs that have contributed to the economic displacement of long-term residents, as well as the exclusion of potential residents who cannot afford to live here. The fundamental challenges in Seattle’s housing market that drive housing costs are not projected to change in years to come without additional city actions to intervene or shape market activity.

## Exhibit 1. Summary of Key Findings by Level of Income

Income Level	Key Findings
50% of area median income (AMI) or below	<ul style="list-style-type: none"> <li>▪ <b>Many low-income households rely on a dwindling supply of market rate units that remain affordable at 50% of AMI.</b></li> <li>▪ <b>Into the future, market rate housing, especially new construction, will not be affordable to these households.</b></li> </ul>
50% to 80% of AMI	<ul style="list-style-type: none"> <li>▪ <b>While market rate housing will be very limited in meeting the needs of households at the lower end of this AMI range, there are opportunities for the market to provide more housing that is affordable and available to households with incomes closer to 80% of AMI.</b></li> <li>▪ Over half of households in this AMI range are cost-burdened and must compete with higher income households for a limited supply of more affordable rental units.</li> <li>▪ In 2020, nearly half of apartments were affordable at 80% of AMI. However, most newly constructed units are more expensive.</li> <li>▪ BERK's housing market projection indicates that if trends continue, the supply of market rate rentals affordable at 80% of AMI will increase slowly, at best. Therefore, down renting by higher income households will likely continue to cause effective shortages of affordable and available rental units.</li> <li>▪ Current opportunities for affordable homeownership are rare and limited to condominiums. The housing market projection indicates this supply will diminish over time.</li> <li>▪ <b>Future efforts to increase the supply of market rate housing, especially lower cost rentals, can contribute to the ability of the market to meet the needs of more households in this AMI range.</b></li> </ul>
80% to 100% of AMI	<ul style="list-style-type: none"> <li>▪ <b>Market rate housing can potentially meet many housing needs in this income range. However, market competition for rentals and limited affordable homeownership choices present challenges.</b></li> <li>▪ In 2020, nearly three-fourths of all apartments were affordable at 100% of AMI. Our forecast suggests nearly half of all new apartment production will be affordable at 100% of AMI.</li> <li>▪ Despite a surplus of cumulative units affordable to households at 100% of AMI, over a third of renter-households in this income range were cost-burdened. One explanation is down renting by higher income households.</li> <li>▪ Only 14% of units that could support homeownership are affordable at 100% of AMI. This helps explain why nearly half of all owner households in this income range are cost-burdened.</li> <li>▪ The supply of ownership units affordable to households in this income range is not expected to increase. Therefore, many of these households will either rent or look outside of Seattle for ownership options.</li> <li>▪ <b>Actions to increase the supply of moderate-cost townhomes or condominiums in less expensive areas of the city could help provide more ownership opportunities for these households, and potentially free up the rental supply for other residents.</b></li> </ul>
Above 100% of AMI	<ul style="list-style-type: none"> <li>▪ <b>While market rate housing theoretically meets the needs of households earning more than 100% of AMI, market supply shortages persist, especially for moderately priced ownership units.</b></li> <li>▪ This is the largest and fastest growing income segment. If trends continue, about 85% of net new households will be in this group, and it will account for two-thirds of all households in Seattle by the year 2045.</li> <li>▪ BERK's forecast suggests the rate of new ownership housing production will not keep pace with the continued rapid growth of middle- and higher income household that may be seeking ownership opportunities. This will contribute to continued high competition for ownership units and price escalation.</li> <li>▪ <b>Actions to increase the supply of ownership products could help reduce competition, reduce the rate of housing cost escalation, and potentially reduce the number of down renting households.</b></li> </ul>

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# Introduction

This report presents an analysis of current and projected future housing market conditions in the City of Seattle. The purpose is to identify and measure gaps between Seattle's market rate housing supply and the housing needs of Seattle residents. Further, the report is intended to provide background data and analysis to inform the City's work to identify short- and longer-term strategies to increase the supply, diversity, and affordability of market rate housing choices. The analysis is guided by three central questions:

- What is the current supply of market rate housing in the city and how does this supply compare with what we know about current housing needs?
- Which types of housing needs are likely to be accommodated by the housing market if trends continue into the future?
- Which types of housing needs could potentially be addressed through market rate housing if the city takes actions to shape housing market conditions?

The report is organized in three major sections:

- **Housing Market Trends**

Here we present data about recent housing market trends that are shaping Seattle's current housing affordability crisis. This section also includes a discussion of how the emergence of COVID-19 in 2020 has impacted these trends in the short-term and increased uncertainty moving forward.

- **Baseline Conditions**

This section begins with a summary of housing needs in Seattle, including both owner and renter households of different sizes across the entire income spectrum. It also addresses racial and ethnic disparities in housing outcomes. Next, we present a summary of the current market rate housing supply. Here we inventory housing in eight geographic market areas in Seattle by unit types and affordability levels. Finally, we compare needs and supply citywide to identify baseline gaps. This gap analysis also considers indicators of housing needs that are not being met, such as displacement and economic exclusion.

- **Future Scenarios**

This section starts with a summary of our approach to analyzing potential future housing needs and supply, including the relationship to both historical trends and housing targets for Metropolitan Cities in King County's countywide planning policies. Then, we present projected housing needs of Seattle residents by income level and tenure under two different scenarios. We also present projected market rate housing supply by market areas, unit types, and affordability levels. Next, we compare the alignment of future housing needs and market supply to measure anticipated gaps. Finally, we identify additional housing needs that will likely be left unmet if Seattle takes no action to shape future housing market conditions.



# Housing Market Trends

Decades of strong economic growth have had a transformative impact on Seattle's population, employment, skyline, and housing market. Opportunities for high-paid work in fields such as technology, life sciences, and global health have attracted new residents from across the globe. These higher income households need places to live, and Seattle's housing market has struggled to keep pace with this increased demand for housing. This section summarizes key trends that are shaping current and future housing needs in Seattle.

## *Job growth is outpacing housing production, leading to an increasing supply shortage*

In 2005 there were 1.8 jobs for every one housing unit in Seattle. Between 2005 and 2019, the city gained about 169,000 net new jobs, despite major job losses during the Great Recession. As shown in Exhibit 2, housing production during this period occurred at a much slower pace; Seattle gained about two net new jobs for every one net new housing unit. This ratio is 11% higher than Seattle's baseline in 2005. The mismatch between job growth and housing production was even more pronounced after the Great Recession. Between 2011 and 2019, the ratio of net new jobs to net new housing was even higher at 2.6, or 43% more than the baseline ratio in 2005. Over the entire period (2005-2019) Seattle would have needed to increase its housing production by an additional 9,000 units just to maintain its baseline jobs to housing ratio.

This analysis shows that housing production has not kept pace with employment growth in Seattle. The result is increased competition for each available housing unit, which drives up housing prices and rents throughout the city.

**Exhibit 2. Net Gain/Loss of Jobs and Housing in Seattle, 2005-2019**

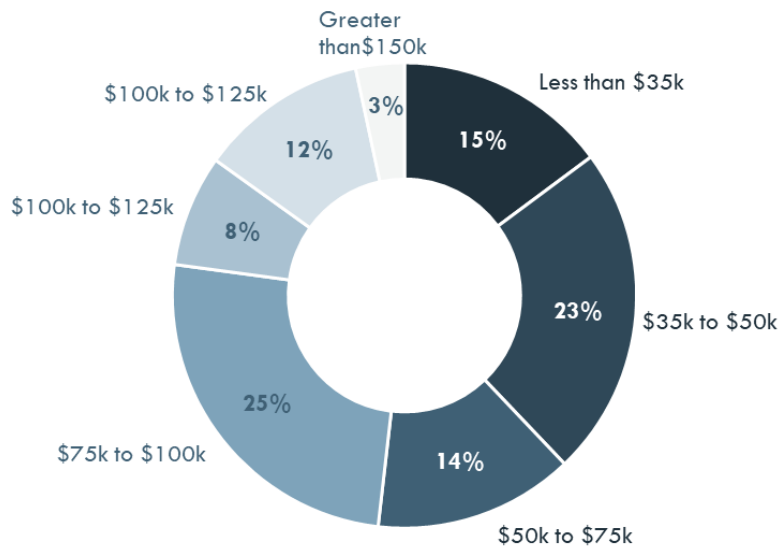


Sources: City of Seattle, 2020; Emsi, 2020; BERK, 2020.

*New high-wage workers are competing for housing with long-term residents*

Another challenge confronting lower- and middle-income households in Seattle is that they must compete for housing with new high-wage workers. A significant percentage of the new jobs added in Seattle are in higher-wage sectors such as technology and health care. Nearly half of the net new jobs added between 2005 and 2020 are in occupations that pay a median annual wage of \$75,000 or higher, and about a quarter pay \$100,000 or higher, as shown in Exhibit 3. Many of these workers live in households with more than one income-earner. This has contributed to an increase of new higher income households with more disposable income to pay for housing than many lower income residents. When these new households compete for a limited supply of housing units, housing costs can rapidly escalate.

### Exhibit 3. Median Annual Wage of New Jobs by Occupational Category, 2005–2020<sup>2</sup>



Sources: BERK, 2020, based on Emsi, 2020.

#### *The cost to build new housing is rising*

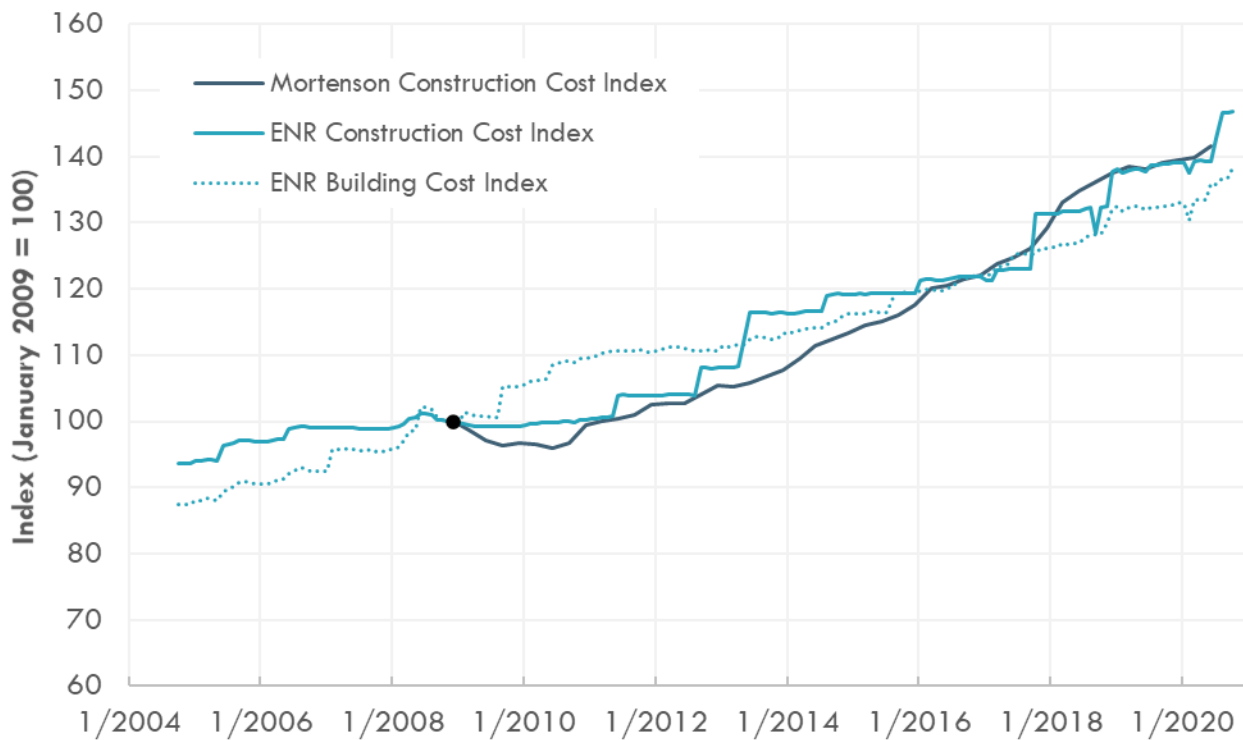
Since January 2009, the costs of construction in Seattle has increased by over 40%. Exhibit 4 shows three different construction cost indices (CCI) for the Seattle area. Each shows a consistent trend of cost escalation between 2011 and 2020. These costs escalated during a period of extremely high market demand for new housing in Seattle. However, during a previous housing boom in Seattle between 2004 and 2009, the ENR CCI shows very little cost escalation.

This more recent period of cost escalation is related to shortages in common building materials due to high demand, a scarcity of construction labor available locally, and significant increases in labor costs, especially skilled trades. For certain types of metals used in construction, the cost of materials has been exacerbated by recent tariffs on trade. Although these indices include some of the major inputs for construction, they specifically exclude several that have a significant impact. Elements such as land costs, development regulations, interest rates on loans, availability of investment capital, and expected project timelines can also influence costs and the profitability of projects.

Increases in construction costs can impact housing costs in several ways. First, construction costs directly impact the total cost to build new housing. So, developers need to be confident they can rent or sell new units at a price point that will provide an adequate return on investment. Construction cost increases therefore can reduce the feasibility of certain housing projects unless rents experience a corresponding increase. This can lead to a reduction in overall unit production and a focus on development types with higher profitability. These trends contribute to net increases in rent per square foot with corresponding pressures on affordability.

<sup>2</sup> BERK calculated the net change in jobs by occupational category in Seattle between 2005 and 2020. We then grouped occupations by median annual wage to summarize the wage levels of net new jobs.

#### Exhibit 4. Construction Cost Indices<sup>3</sup> (CCI) for Seattle, 2004 – 2020



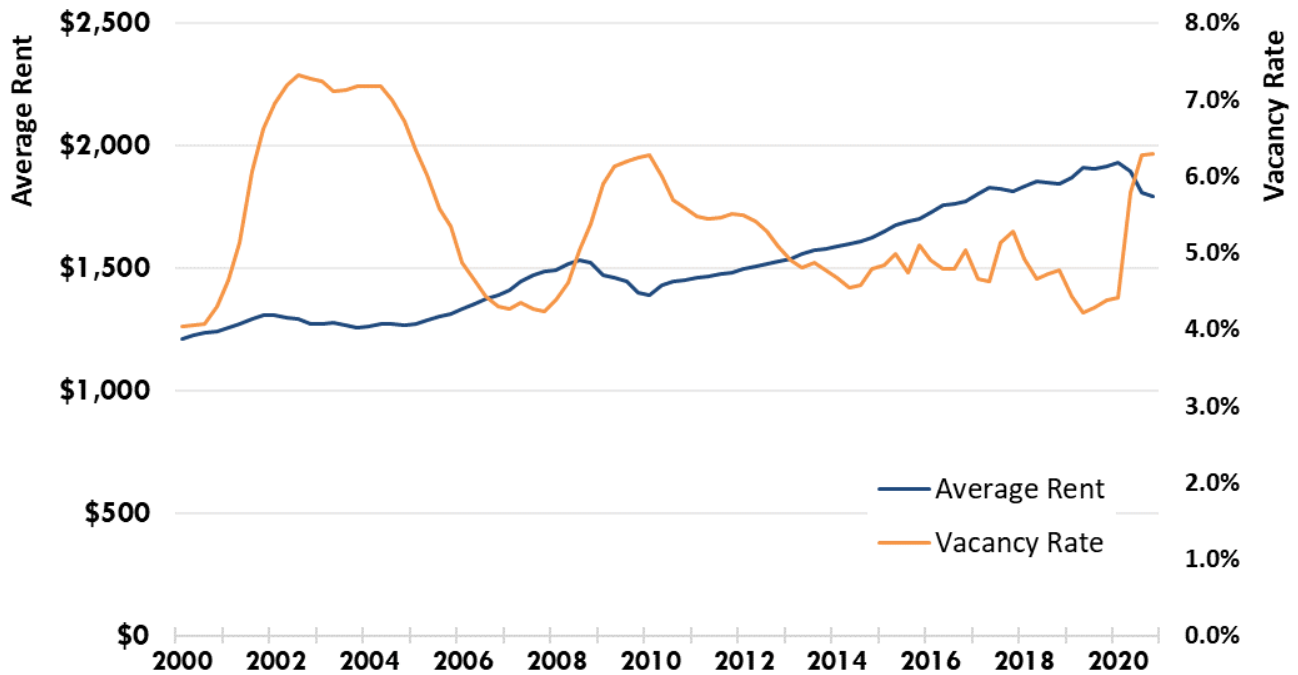
Sources: M. A. Mortenson Company, 2020; Engineering News-Record (ENR), 2020; BERK, 2020.

*The housing shortage has contributed to low vacancy, increased rents, and increased housing prices*

During periods of acute housing shortage, vacancy rates fall. This increases competition for the limited supply of available units and drives up rents. The relationship between apartment rents and vacancy rates can be seen in Exhibit 5. During the past 20 years, rents increased most steeply during periods when vacancy rates dip to around 5% or lower. This can be seen from 2000 to 2001, 2006 to 2009, and 2012 to early 2020. Conversely, during every period where the vacancy rate approaches 6% or higher (2002 – 2005, 2010-2011, and the later part of 2020), rents either stabilize or decline.

<sup>3</sup> M. A. Mortenson Company is a national real estate development company that creates a quarterly construction cost index based on representative projects across the country, with local adjustments based on material and labor cost differences. Engineering News-Record (ENR) is a construction and real estate publication that provides monthly average construction cost indices based on costs of fixed units of materials and labor over 20 cities, with adjustments for individual cities based on local labor, cement, and lumber costs. Their “Building Cost Index” provides an index with a lower amount of labor included.

**Exhibit 5. Average Rent and Stabilized Vacancy Rate for 1-Bedroom Apartments in Seattle, 2000 – 2020**

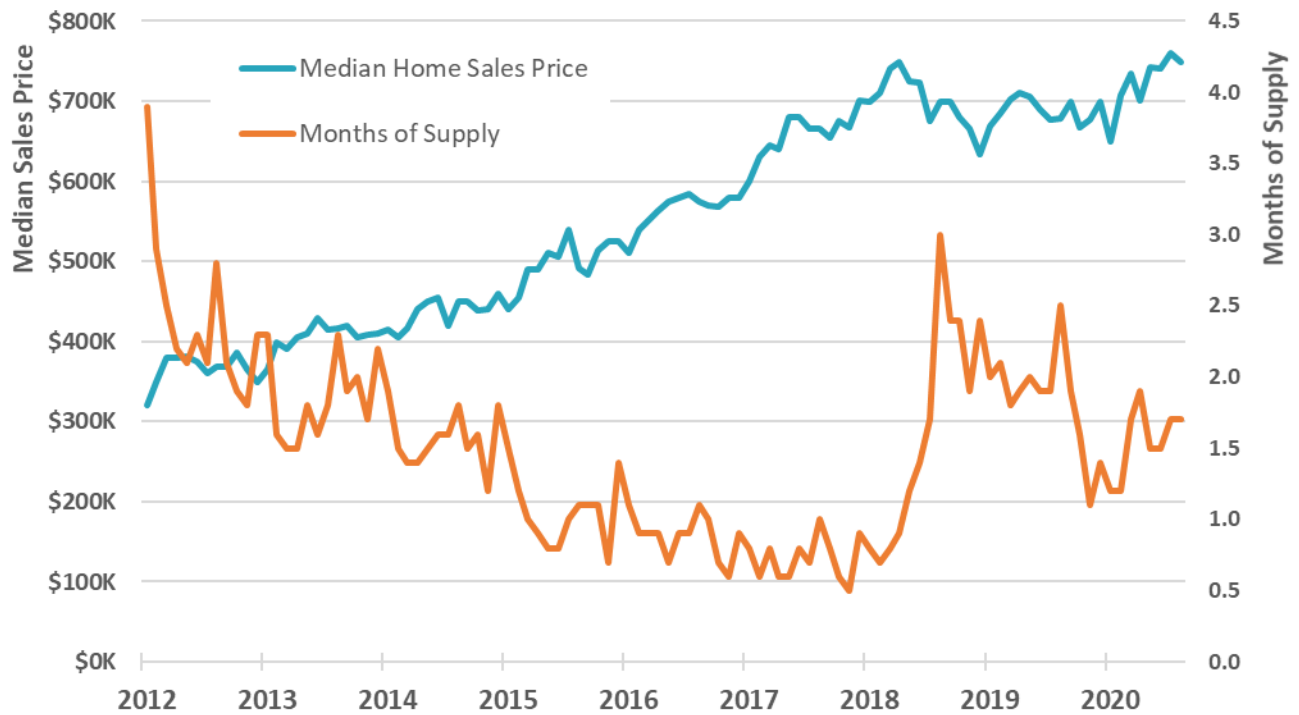


Note: Rent is not adjusted for inflation.

Sources: CoStar, 2020; BERK, 2020.

A similar pattern can be seen for ownership housing prices. Exhibit 6 shows median home sales prices in Seattle between 2012 and 2020. It also shows months of supply, which is a metric that estimates how long it would take the current inventory of homes for sale to sell given the current pace of home sales. The availability of supply on the market decreased steadily from 2012 to 2018, and there was less than one month’s supply of homes available in the market between 2016 and 2018. During the same period, home sales prices rose steadily. Then, in mid-2018, available supply of homes on the market rose significantly and home sales prices leveled off. Four to six months’ worth of supply in the housing market is the typical rule of thumb associated with moderate price appreciation and a balanced market. For Seattle, one to two months’ of housing supply indicates a consistent “seller’s market”, with significant competition among buyers for the housing available in the local market and higher rates of price appreciation over time.

## Exhibit 6. Median Home Sales Price and Months of Supply in Seattle, 2012 – 2020



Sources: Redfin, 2020; BERK, 2020.

### *Housing costs are increasing faster than incomes*

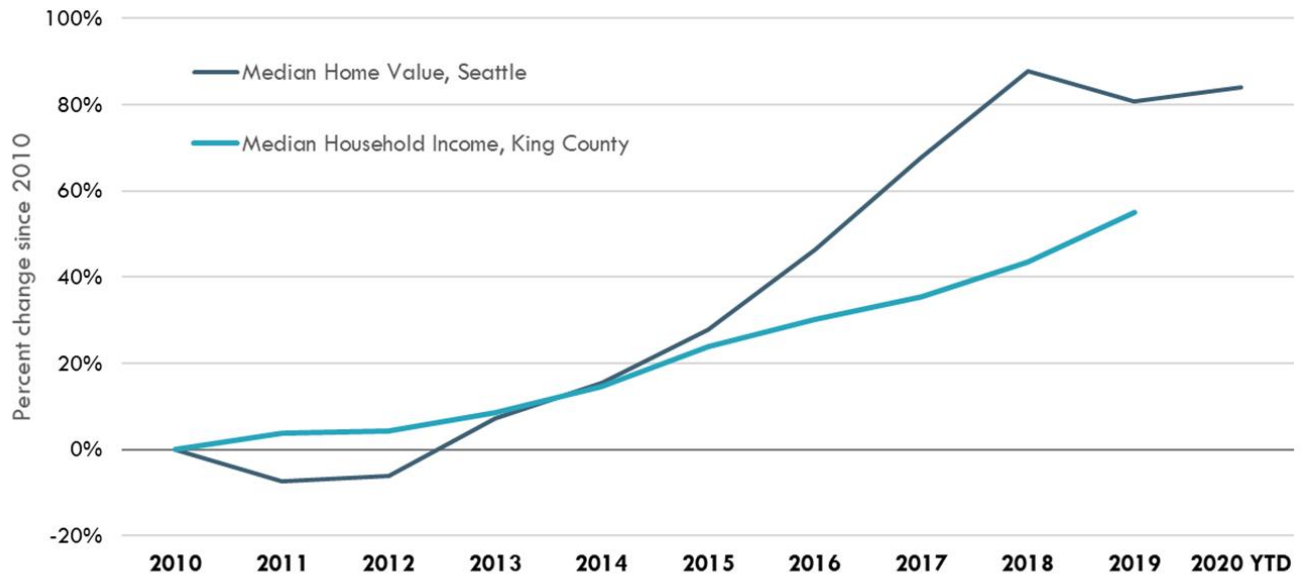
While median household incomes in King County have been rising with the growth of higher wage jobs, this rise in median incomes is not keeping pace with the rapid growth in housing prices. Exhibit 7 shows the increasing divide between housing costs in Seattle and King County’s median household income. Between 2010 and 2019, median home values in Seattle increased by 80% compared to an only 55% increase in the county median household income. This indicates ownership housing is becoming further out of reach to county residents seeking to live in Seattle.

Rents also increased faster than incomes in the majority of Seattle zip codes between 2014 and 2019. These increases were fastest in zip codes that had the lowest rents in 2014. In other words, the least expensive parts of the city saw rents increasing the fastest.<sup>4</sup>

Of course, most Seattle households did not see their own incomes increase by 55% during the past decade. Changes in median household income reflect, in part, the influx of new higher income households into Seattle and King County. So, for many Seattle households, this divergence between housing costs and incomes is widening at a faster rate.

<sup>4</sup> Source: BERK analysis of [Zillow’s Observed Rent Index](#) data for zip codes, 2014-2019. This index refers to the mean of the middle quintile of all rental units.

**Exhibit 7. Percent Change in Median Single-Family Home Value and King County Median Household Income, 2010-2020**



Sources: Zillow, 2020; Census ACS 1-Year Estimates, 2010 - 2019; CoStar, 2020; BERK, 2020.

*The number of cost-burdened renter households in Seattle is on the rise*

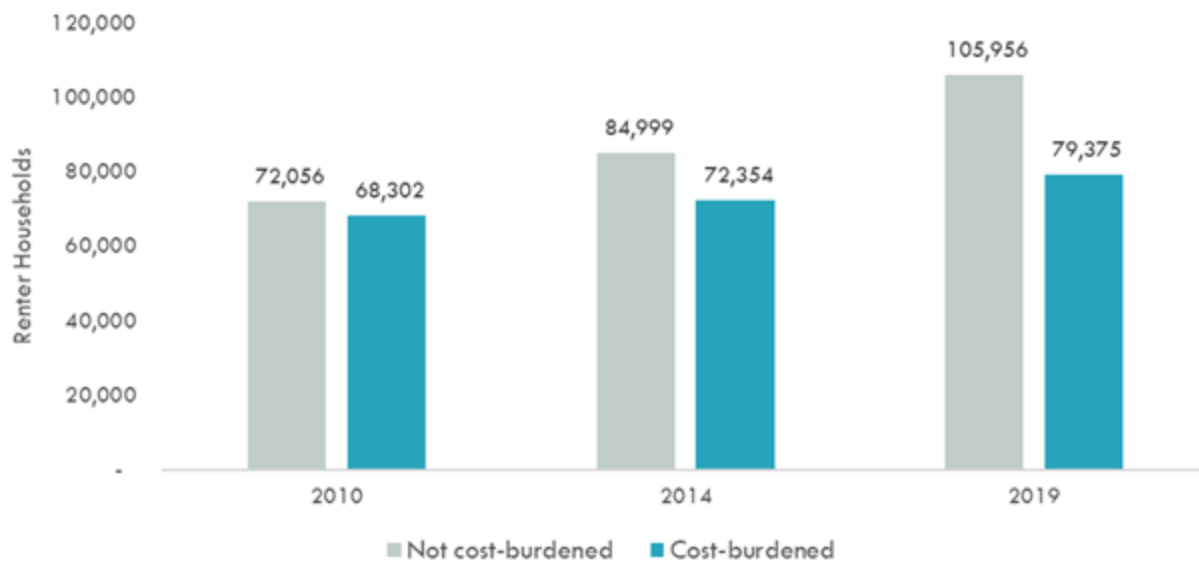
One consequence of rising housing costs is an increasing number of Seattle households that are cost-burdened, i.e., that spend more than 30% of their household income on housing. Exhibit 8 shows the estimated total number of cost-burdened renter households in 2010, 2014, and 2019. During this period, the percentage share of all renters who are cost-burdened declined from 46% to 41%.<sup>5</sup> However, the total number of cost-burdened renter households in Seattle increased by over 11,000 during this period.<sup>6</sup> This is possible because Seattle’s population grew so rapidly during this period. Many of these cost-burdened households experience housing insecurity and are at increased risk of economic displacement if faced with a rent hike, job loss, or major unforeseen expense such as medical bills.

<sup>5</sup> The denominator in this calculation includes households for whom cost-burden was not calculated due to having zero or negative income. That number declined from approximately 7,000 in 2010 to ~6,000 in 2018.

<sup>6</sup> This increase occurred despite the fact that Seattle experienced an economic recovery between 2010 and 2014 where many people gained back jobs lost during the Great Recession.



## Exhibit 8. Renter Households by Cost-Burden Status



Sources: American Community Survey B25074 1-Yr Estimates, 2010, 2014, & 2019; BERK Consulting, 2021. Note: This chart excludes households for whom cost burden was not calculated due to having zero or negative income.

### *The impacts of COVID-19 are still unclear but expected to be significant*

The COVID-19 pandemic prompted lockdowns and restrictions on businesses and activities. The toll of the pandemic and resulting restrictions have caused an extreme level of disruption across all sectors of the economy and within the housing market. Many of these impacts may exacerbate or accelerate current trends affecting housing affordability, while others will need to be viewed more cautiously over the longer term.

The most direct short-term effects on the real estate market have been on the availability of housing on the market and the attractiveness of certain locations for buyers. Some elements of the Seattle housing market have experienced a decrease in demand—most notably reflected in a drop in rents and condominium prices in the greater downtown area and other neighborhoods close to the city’s core. Much of this impact appears to be due to a decrease in demand for housing close to jobs and amenities in the downtown core as employers shift to remote-work models for a large portion of their office-based workforce.

According to Northwest Multiple Listing Service, while the available supply of for-sale housing overall in King County stood at about 0.6 months for December 2020, there was a significant amount of stock available in Belltown/Downtown (6.5 months), Queen Anne/Magnolia (2.0 months), and SODO/Beacon Hill (1.9 months). This is in part due to higher supply available with condos in the city center and surrounding inner neighborhoods, and contrasts with locations such as Enumclaw and Jovita/West Hill which have extremely hot markets with significant uptake of available supply. This suggests that many households are choosing to replace urban amenities with increased indoor and outdoor space in suburban and exurban communities.

Other effects are also expected over the short-term:

- The rate of new housing construction has slowed due to lockdowns and safety protocols, which are

likely to continue through 2021. Investment and financing uncertainty, especially in the face of an uncertain market, may also impact housing projects going forward.

- The end of eviction moratoria will also severely disrupt the rental market, as tenants may be evicted for nonpayment of rent once these protections are gone. At present, the City of Seattle has extended the moratoria until June 20, 2021. The full impacts of this will depend on any future rental assistance included as part of state and federal relief funds.
- Accelerated trends towards online shopping options will diminish the role of retail spaces in mixed-use buildings. Additionally, the impacts of lockdowns on restaurants and cafes mean that these spaces in mixed-use buildings will have higher vacancies and there will be downward pressure on lease rates. This may impact the feasibility of projects where ground-floor retail is required.
- Many workplaces may start allowing employees to work from home on an indefinite basis. This will allow workers far more flexibility when selecting a place to live. While some households may decide to live in high-amenity urban neighborhoods, others may choose to look elsewhere for more affordable homeownership options.
- The national economic effects of the pandemic will likely result in interest rates remaining low for the foreseeable future. As ongoing impacts on housing demand become clearer to investors, it is likely that these lower rates will support home buyers and investors in future development projects, where there is demand for additional housing."

There is still a great deal of uncertainty about the longer-term impacts associated with the pandemic and whether these short-term trends will continue over the long term. Note that this report assumes that trends from prior to the pandemic, including significant job growth and the draw of urban amenities, will return once the disruptions of COVID-19 have subsided.

# Baseline Conditions

This section is divided in three parts:

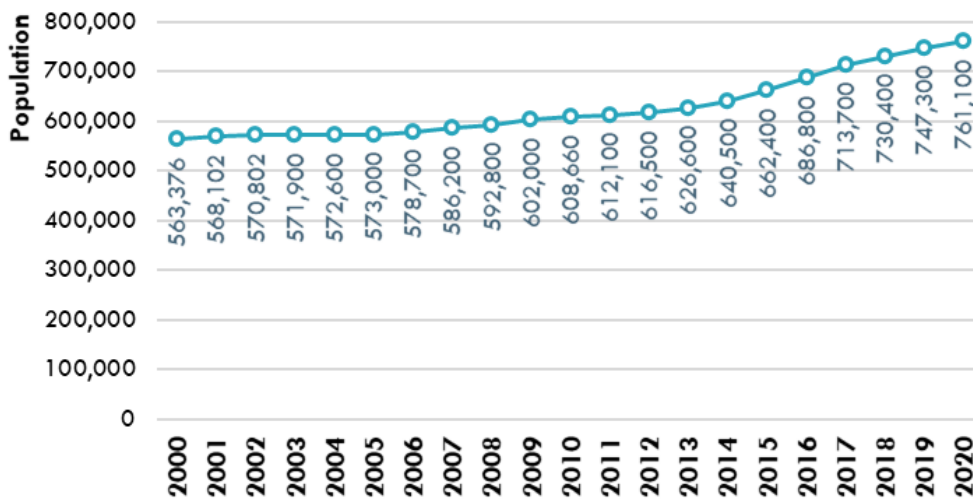
- **Current Housing Needs** summarizes the population and household characteristics of current Seattle residents including both owner and renter households of different sizes across the entire income spectrum.
- **Current Housing Supply** provides an inventory Seattle’s housing by unit types, with a focus on eight separate market areas. We also provide data about market rate housing affordability.
- **Baseline Gap Analysis** compares needs and supply citywide to identify baseline gaps by affordability levels for renter and owner households. It also addresses indicators of housing needs that are not being met in the Seattle housing market, such as displacement and economic exclusion.

## CURRENT HOUSING NEEDS

### Population Characteristics

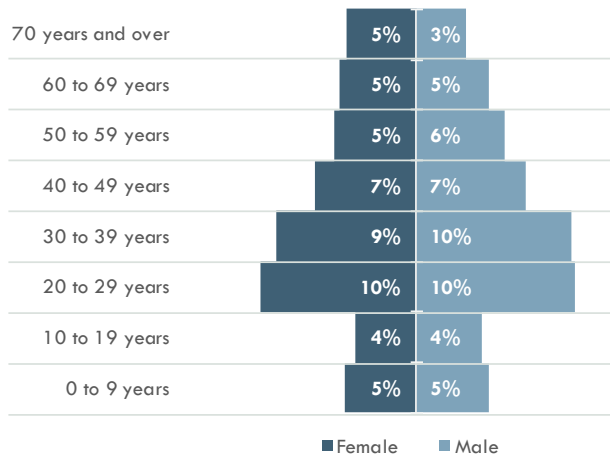
As of April 2020, OFM estimates Seattle’s population to be 761,100. Since 2010, the city has grown at an average annual rate of 2.3%, with the rate even faster since 2015, as shown in Exhibit 9. Over 20% of Seattle’s population are younger adults in their 20’s, as shown in Exhibit 10. Residents in this age group are less likely than older adults to have formed their own families and more likely to be living on their own or with housemates.

**Exhibit 9. City of Seattle Population, 2000-2020**



Sources: WA State Office of Financial Management (OFM), 2020; BERK, 2020.

## Exhibit 10. City of Seattle Population by Age Range, 2018



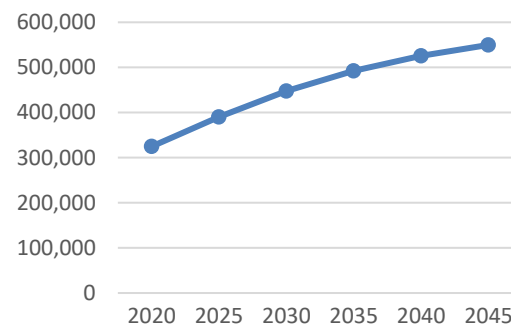
Sources: American Community Survey 5-Yr Estimates, 2014-2018; BERK, 2020.

Exhibit 11 shows population by race and ethnicity in Seattle and King County. In 2019, Seattle had a slightly lower share of residents who identified as Latino/Hispanic or a race other than White alone (36% compared to 40% in King County). In both the city and county these percentages have increased since 2010. But that trend has been faster in King County as a whole. While Seattle gained in residents who identified as Hispanic/Latino or a race other than White alone, this presentation can miss localized losses in particular cultural communities and neighborhoods.

## Increased need for housing accessible to seniors and disabled residents

The aging of the baby boom generation is a major dynamic influencing housing needs locally and across the nation. Washington State's Office of Financial Management forecasts that the population age 65 and older in King County will grow by nearly 70% between 2020 and 2045. Over the same time span, the population of older seniors age 75 and over in King County is expected to more than double.

King County Population Age 65 and Over

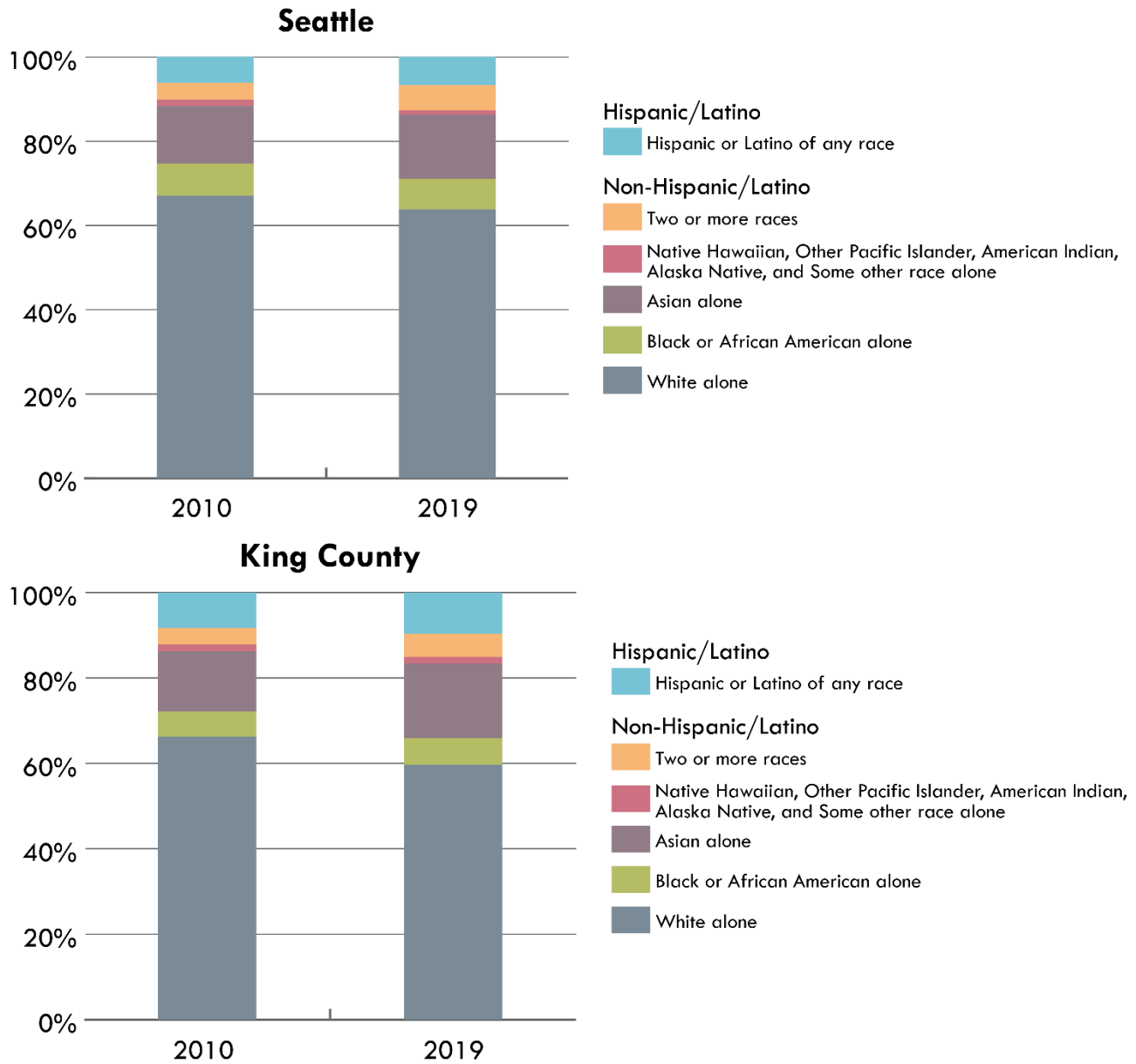


Source: WA State Office of Financial Management (OFM) 2017 GMA Population Projections for Counties

As people age, their risk of experiencing disability increases. Given that many seniors want to continue living in their homes for as long as they can, the need for housing that is not only affordable, but also accessible, will increase. Universal design is an approach that makes homes more livable not only for seniors, but also younger residents who have functional limitations and for visiting family and friends who have such limitations.

Aging of the baby boomers is also likely to increase demand for housing with amenities such as health facilities and dining services. Another type of housing likely to see increasing demand is accessory dwelling units. Nontraditional forms of housing such as co-housing and multigenerational housing may also see increasing interest from older individuals, their loved ones, and friends.

**Exhibit 11. Population by Race and Ethnicity, Seattle and King County**



Sources: American Community Survey 5-Yr Estimates, 2006-2010 and 2015-2019; BERK, 2021.

## Displacement and shifting locations of communities of color

Looking at regional trends over time shows substantial shifts over the past several decades in where communities of color reside.

Even as their share of the overall Seattle population continued to increase, communities of color thinned in some neighborhoods. Most notable were declines in the Black population in and around Seattle’s Central District and reductions in the number of Asian and Pacific Islander residents and Black residents in several Southeast Seattle neighborhoods. Meanwhile, Black, and Asian and Pacific Islander populations grew, and rates of poverty increased in suburbs with lower housing costs to the south and east of Seattle.

While we lack data to directly measure how much of these shifts were due to displacement (as opposed to moves of choice), these patterns, coupled with the reports of community members themselves, provide strong evidence of long-standing displacement trends out of the city.

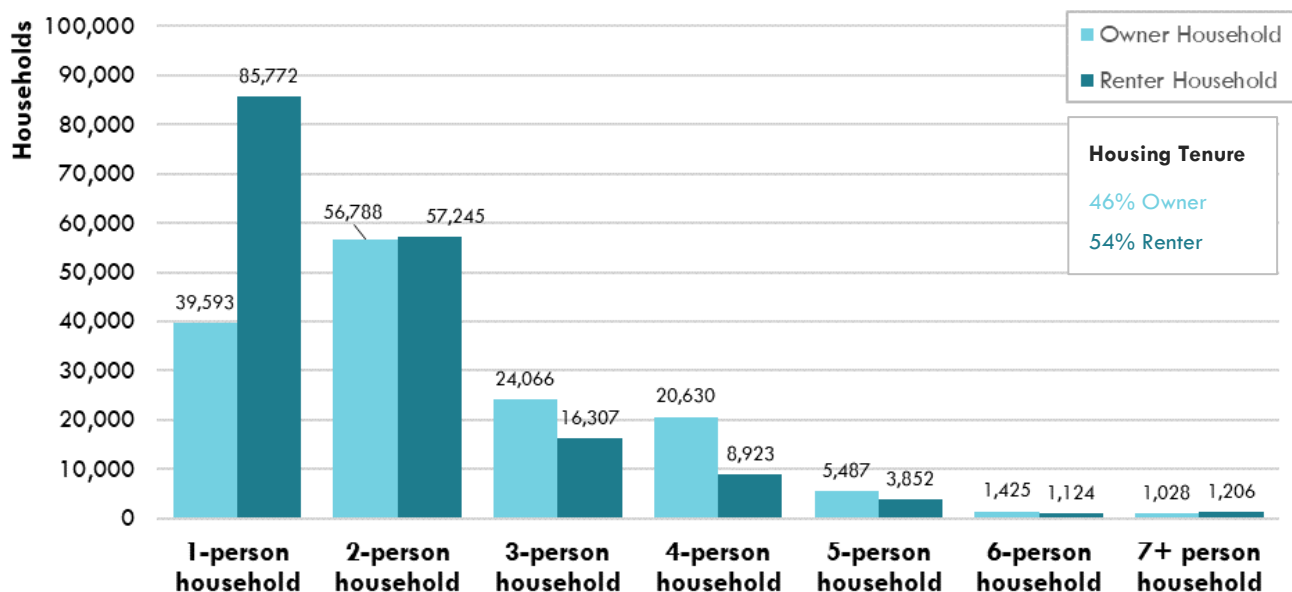
New regional data from the Puget Sound Regional Council provides some insights into the degree to which displacement dynamics have contributed to households’ moves in recent years. Based on responses to a 2019 survey, roughly 30% of households who had recently moved out of Seattle to another home in the region, did so due to a displacement-related reasons – the most common cited was not being able to stay in one’s home due to rising housing costs. (2019 PSRC Household Travel Survey).

The high cost of housing exerts widespread displacement pressures on low- and moderate-income households in Seattle, with pressure concentrated in communities of color where incomes and wealth tend to be lower.

## Household Size and Tenure

As of 2019, there were an estimated 343,988 households in Seattle. A bit over half of the households (54%) rent the home in which they live. Exhibit 12 breaks down all households by size and tenure (i.e., owner or renter). Nearly three-fourths of all households in Seattle have only one or two members. One-person households are much more likely to be renters, while households with three or more people are more likely to be owners.

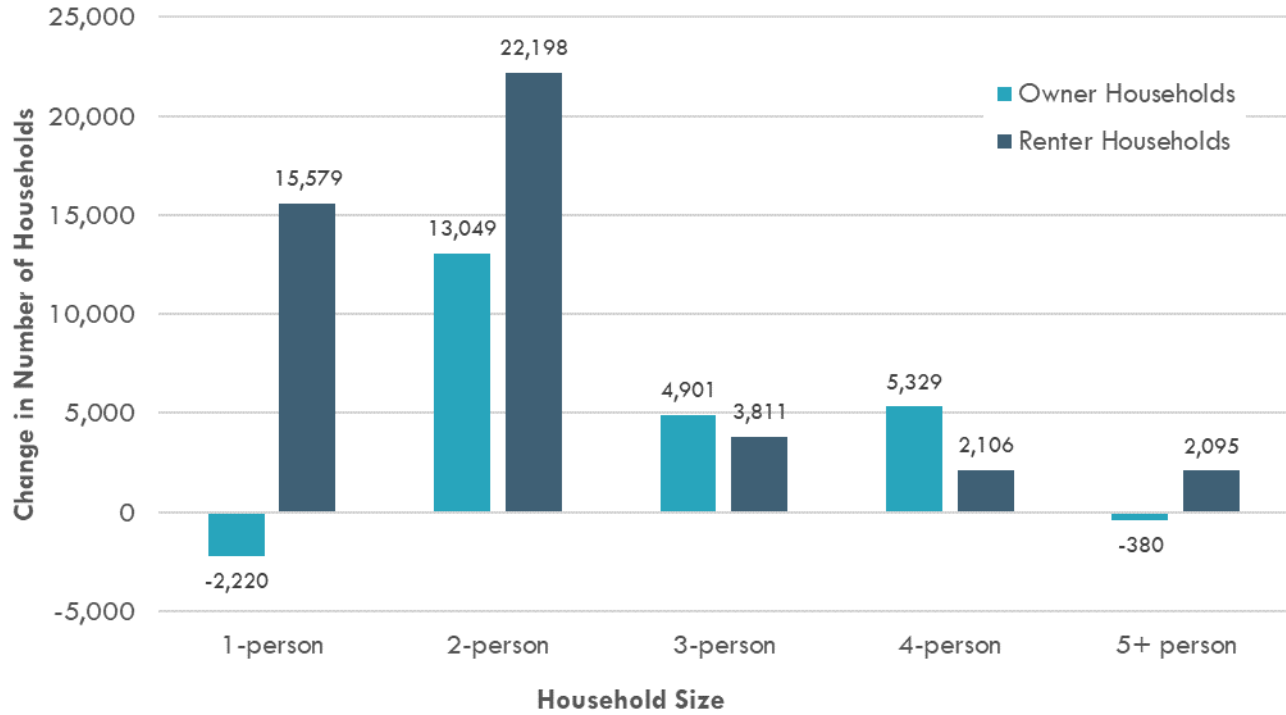
**Exhibit 12. Households by Size and Tenure**



Sources: American Community Survey 5-Yr Estimates, 2014-2018; BERK, 2020.

Exhibit 13 shows gain or loss of households by size and tenure. Seattle is gaining renter households at a much faster rate than owner households. The vast majority of these net new households are one or two persons in size.

**Exhibit 13. Gain or Loss of Households by Size and Tenure, 2010 - 2019**



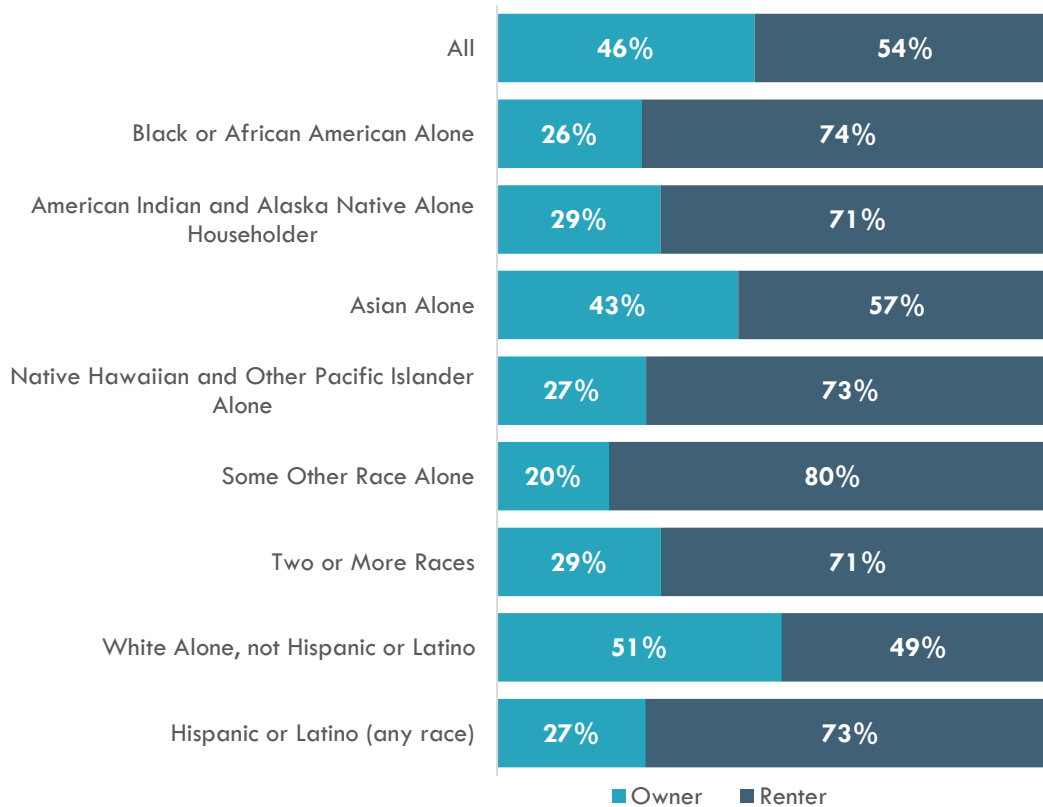
Sources: Source: American Community Survey 1-Yr Estimates, 2010 & 2019; BERK, 2020.

There are significant homeownership disparities when comparing households by race or ethnicity of householder, as shown in Exhibit 14. Households with White householders are most likely to be homeowners at 50%, followed closely by Asian householders at 43%. Black, Hispanic, and other householders are least likely to be homeowners. Housing tenure can have a significant impact on housing stability.<sup>7</sup> Homeowners are not impacted by rising rents or the threat of eviction. Homeownership can also be an important means to generating wealth that is not available to renter households.

<sup>7</sup> While many homeowners do enjoy greater housing stability due to being shielded from rent increases, they also face risks. Loss of job/income and unexpected expenses due to maintenance needs or property tax increases can increase cost-burden and put owner households at risk of foreclosure or property loss.



## Exhibit 14. Housing Tenure by Race or Ethnicity of Householder



Sources: ACS 2013-2018 5-year estimates, tables B25003A-1; BERK, 2020.

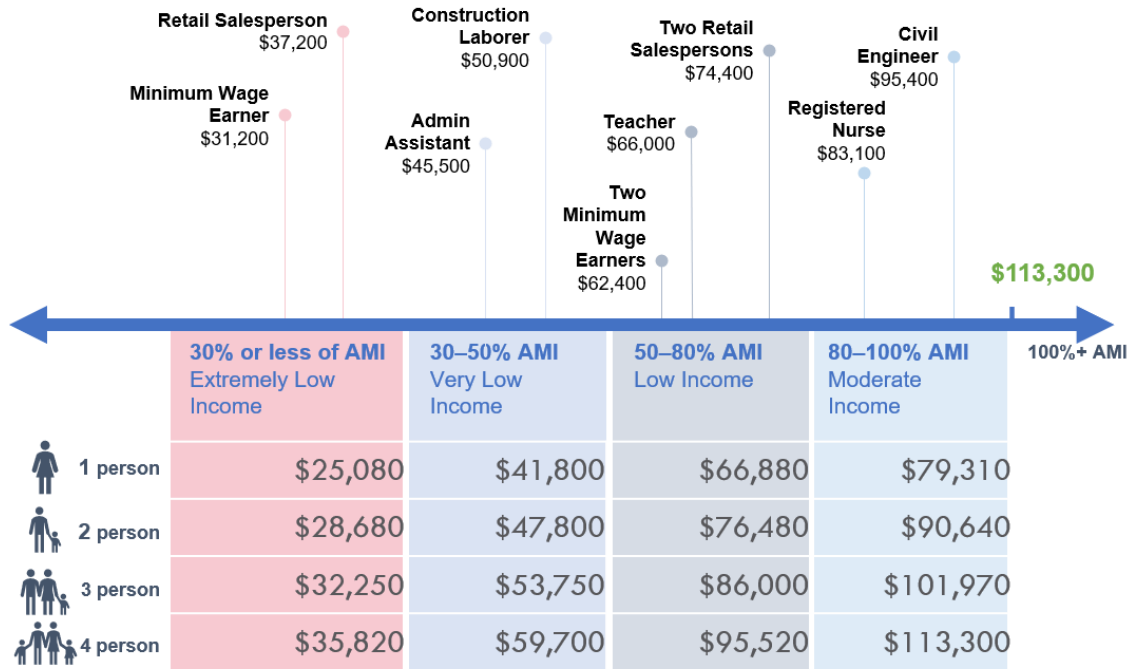
## Household Income

Analysis of housing needs often groups households relative to Area Median Income (AMI). AMI refers to official median family income calculations published annually by the U.S. Department of Housing and Urban Development (HUD) for counties and metropolitan areas across the U.S. In 2020, AMI for the Seattle-Bellevue, WA HUD Metro Fair Market Rent Area (including King and Snohomish Counties) was \$113,300.<sup>8</sup> HUD also publishes data grouping households by income level. These include adjustments to account for differences in household size to reflect the fact that housing expenses increase with the size of one's household. Exhibit 15 shows income thresholds<sup>9</sup> by household size used in BERK's analysis, as well as representative Seattle-area wages by occupation.

<sup>8</sup> Note that HUD's AMI calculations can depart from actual median family incomes due to calculation considerations for HUD housing assistance programmatic purposes.

<sup>9</sup> Note that these income thresholds were calculated by BERK based on HUD's AMI and methodology for adjustment by household size. HUD's published Income Limits vary slightly from these calculations due to rounding and additional refinements HUD makes to Income Limits for programmatic purposes.

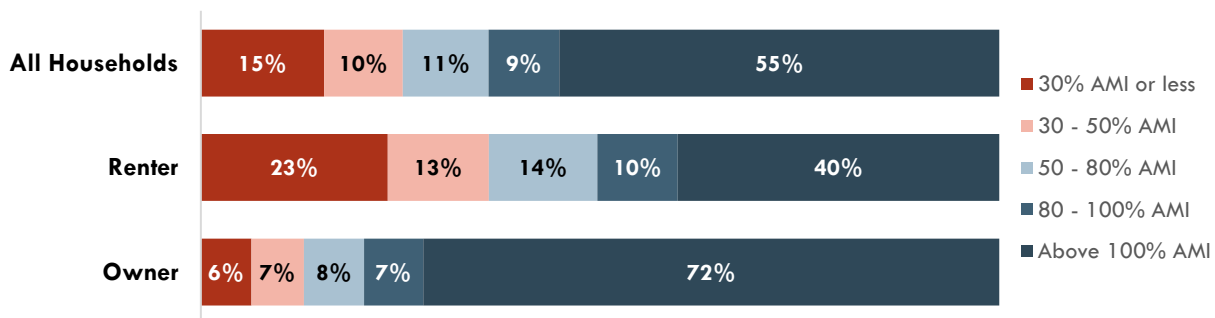
**Exhibit 15. Income Thresholds for Grouping Households by Income Level and Household Size, with Representative Wages<sup>10</sup> by Occupation (Seattle-Bellevue-Everett Region)**



Sources: HUD, 2020; US Bureau of Labor Statistics, 2018; BERK, 2020.

Exhibit 16 shows the breakdown of all households in Seattle by income level as well as comparisons for renter- and owner-occupied households. Not surprisingly, owner households are much more likely than renters to be higher income. HUD data does not include any breakdowns by income level above 100% of AMI.

**Exhibit 16. Percentage of Households by Income Level and Tenure**



Sources: HUD CHAS (based on ACS 2013-2017 5-year estimates)

HUD Comprehensive Housing Affordability Strategy (CHAS) data categorizes households into five

<sup>10</sup> Note that wages represent conditions in 2018, whereas the 2020 AMI is presented. Additionally, incomes in Seattle are likely slightly higher than incomes for the region as a whole. Household incomes may vary substantially from these individual income figures as some people work part time or have multiple incomes in their household.

different types. Exhibit 17 shows definitions used by HUD for categorizing households by type.

**Exhibit 17. Household Type Definitions Used in HUD CHAS Data**

Household Type	Description
Senior living alone	A person age 62+ living alone
Senior family	Two persons, either or both age 62 and older
Small family	Families with 2-4 members (excluding senior families)
Large family	Families with 5 or more members
Other	Non-family, non-senior households (includes those living alone or with unrelated housemates)

Source: HUD, 2020. Note: HUD uses the term “elderly” in place of “senior”.

Exhibit 18 shows the total number of households by household type and income level for both owner and renter households.

**Exhibit 18. Households by Type by Income Level, Owner and Renter Households**

	Senior Family	Senior Living Alone	Large Family	Small Family	Other	Totals
<b>Total Owner Households</b>	<b>22,470</b>	<b>20,535</b>	<b>6,575</b>	<b>66,025</b>	<b>30,955</b>	<b>146,560</b>
Owner Households Income - Percent of AMI						
30% or less	5%	19%	3%	3%	7%	6%
>30% to 50%	7%	18%	7%	3%	6%	7%
>50% to 80%	10%	14%	9%	5%	7%	8%
>80% to 100%	10%	10%	8%	5%	9%	7%
Greater than 100%	68%	39%	73%	85%	71%	72%
<b>Total Renter Households</b>	<b>4,865</b>	<b>19,955</b>	<b>4,280</b>	<b>38,575</b>	<b>100,615</b>	<b>168,290</b>
Renter Households Income - Percent of AMI						
30% or less	27%	49%	42%	16%	20%	23%
>30% to 50%	17%	19%	14%	11%	12%	13%
>50% to 80%	12%	11%	15%	12%	14%	14%
>80% to 100%	6%	6%	7%	8%	12%	10%
Greater than 100%	39%	14%	21%	52%	42%	40%

Sources: HUD CHAS (based on ACS 2013-2017 5-year estimates); BERK, 2020.

Exhibit 19 breaks down household income distribution by race and ethnicity. It shows significant disparities in income between White households<sup>11</sup> and households of color. Black households are most likely to be low-income, reflecting systemic and structural inequalities.

<sup>11</sup> Here a “White household” refers to a household with a householder (the person in whose name the home is owned or rented) who identifies as White alone. It does not necessarily mean all members of the household are of the same race. This also applies to households of color and Black households.

**Exhibit 19. Household Income Distribution by Race and Ethnicity of Householder by Tenure**

	Broad Categories		Specific Racial and Ethnic Groups of Color				
	White alone, not Hispanic	Of color	Asian alone, not Hispanic	Black or African-American	Other, Native American, Pacific Islander, or multiple race	Hispanic or Latino, any race	Totals
<b>Total Owner Households</b>	<b>114,260</b>	<b>32,310</b>	<b>18,385</b>	<b>4,660</b>	<b>4,815</b>	<b>4,450</b>	<b>146,570</b>
Owner Households Income - Percent of AMI							
30% or less	5%	10%	11%	9%	10%	6%	6%
>30% to 50%	6%	9%	9%	14%	5%	7%	7%
>50% to 80%	7%	9%	9%	11%	8%	10%	8%
>80% to 100%	7%	8%	9%	10%	7%	7%	7%
Greater than 100%	75%	63%	61%	56%	70%	70%	72%
Percent of AMI – Cumulative							
50% or less	12%	21%	22%	28%	18%	14%	14%
80% or less	19%	32%	33%	41%	28%	23%	22%
<b>Total Renter Households</b>	<b>108,285</b>	<b>60,000</b>	<b>22,910</b>	<b>14,320</b>	<b>10,825</b>	<b>11,945</b>	<b>168,285</b>
Renter Households Income - Percent of AMI							
30% or less	18%	34%	31%	49%	29%	25%	23%
>30% to 50%	12%	14%	11%	19%	13%	13%	13%
>50% to 80%	14%	13%	12%	11%	15%	18%	14%
>80% to 100%	11%	8%	8%	4%	7%	14%	10%
Greater than 100%	46%	31%	37%	17%	36%	30%	40%
Percent of AMI – Cumulative							
50% or less	30%	48%	43%	69%	43%	38%	36%
80% or less	43%	61%	55%	79%	57%	56%	50%

Sources: HUD CHAS (based on ACS 2013-2017 5-year estimates); BERK, 2020.

## Cost-Burdened Households

The American Community Survey (ACS) includes questions about housing costs. For owner households, these costs include mortgages, property taxes, insurance, utilities, fuels, and condominium fees.<sup>12</sup> For renter households, these costs include rent, utilities, and fuels. HUD uses ACS data about household incomes and housing costs to calculate each household's level of cost burden. When a household pays more than 30 percent of their gross income on housing costs, HUD considers the household to be "cost-burdened." When a household pays more than 50 percent of their gross income on housing costs, HUD considers the household "severely cost-burdened." Cost-burdened households have less money available for other essentials like food, childcare, transportation, and medical care.

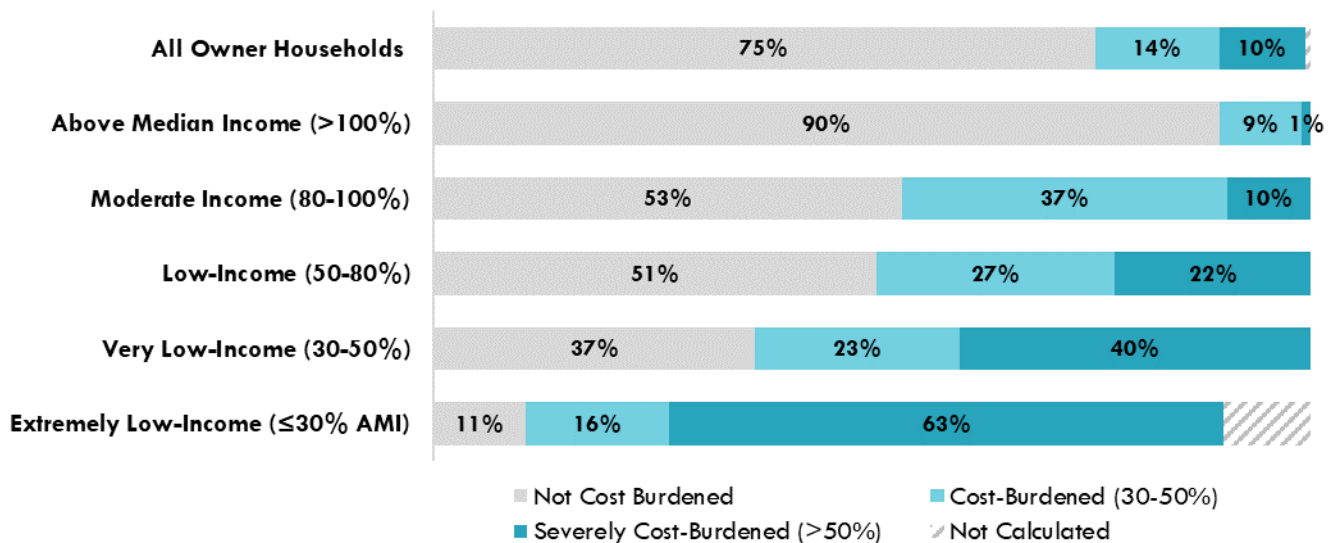
Exhibit 20 and Exhibit 21 present cost-burden estimates for owner and renter households, respectively. The charts show that cost-burden is most common in the lowest household income levels. While households at all income levels can be cost-burdened, it is important to consider that cost burden is much more impactful for lower income households as they have less income remaining to cover additional living expenses than would a middle- or higher income household.

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<sup>12</sup> A detailed description of all owner costs tracked in Census data can be found here: <https://www.census.gov/quickfacts/fact/note/US/HSG650218>

**Exhibit 20. Ownership Households by Level of Cost Burden and Income Level**

% of AMI	Not Cost-Burdened	Moderately Cost-Burdened (30-50%)	Severely Cost-Burdened (>50%)	Not Calculated	Total Households
30% or less	975	1,515	5,855	915	9,265
>30% to 50%	3,550	2,245	3,870	0	9,665
>50% to 80%	5,555	2,990	2,455	0	11,000
>80% to 100%	5,815	4,025	1,035	0	10,880
Greater than 100%	94,710	9,895	1,145	0	105,745
All Owner Households	110,605	20,670	14,360	915	146,555



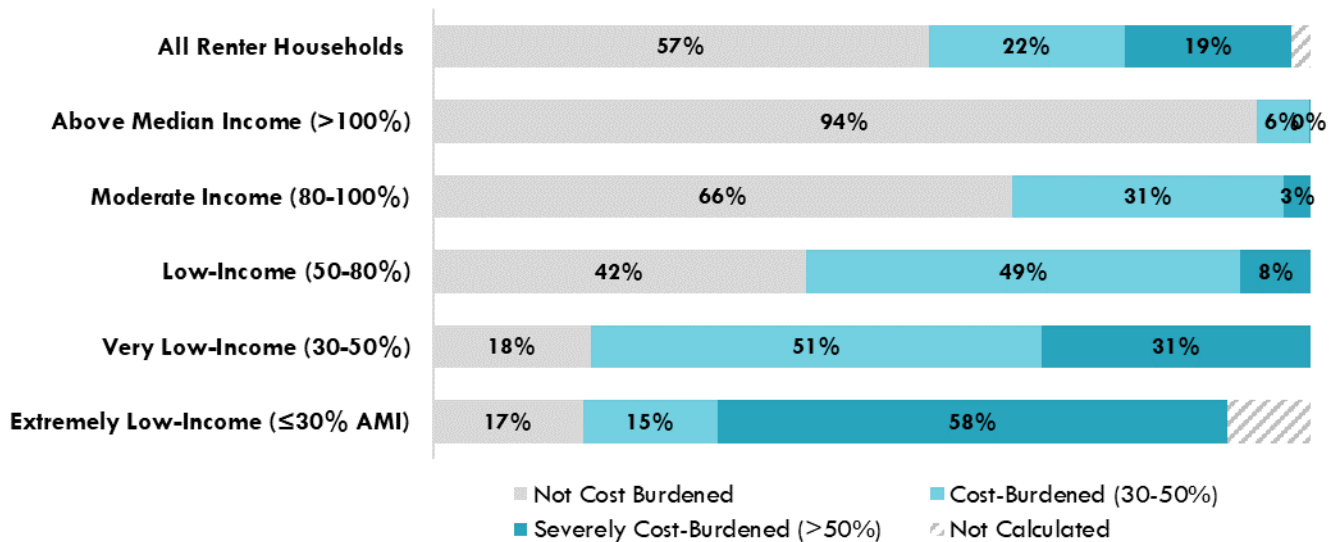
Note: "Not Calculated" refers to households with zero or negative income. So, they can essentially be thought of as being severely cost-burdened.

Sources: HUD CHAS (based on ACS 2013-2017 5-year estimates); BERK, 2021.



**Exhibit 21. Renter Households by Level of Cost Burden and Income Level**

% of AMI	Not Cost Burdened	Moderately Cost-Burdened (30-50%)	Severely Cost-Burdened (>50%)	Not Calculated	Total HH
30% or less	6,730	6,020	22,850	3,765	39,365
>30% to 50%	3,835	10,980	6,535	0	21,350
>50% to 80%	9,700	11,295	1,830	0	22,825
>80% to 100%	11,200	5,245	530	0	16,975
Greater than 100%	63,625	4,000	155	0	67,780
All Renter Households	95,090	37,540	31,900	3,765	168,295



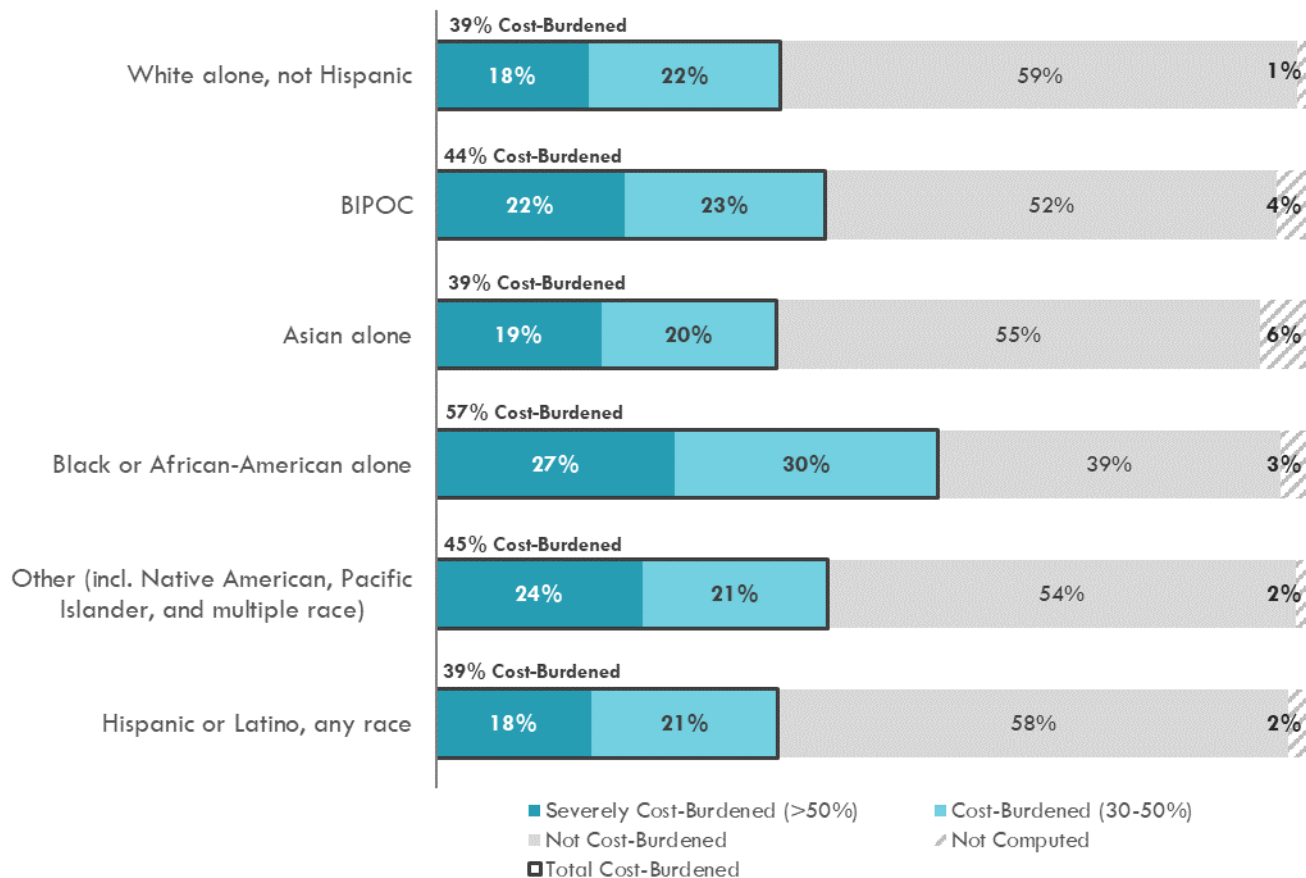
Note: “Not Calculated” refers to households with zero or negative income. So, they can essentially be thought of as being severely cost-burdened.

Sources: HUD CHAS (based on ACS 2013-2017 5-year estimates); BERK, 2021.

The challenge of housing cost burden is impacting some communities in Seattle more than others. Exhibit 22 shows the cost-burden status of households by race and ethnicity of householder. Over half (57%) of all Black renter households in Seattle are cost-burdened, and over a quarter (27%) are severely cost-burdened, meaning they spend over half of their incomes on housing costs. This is in strong contrast to the lower prevalence of cost burden found among several other racial and ethnic groups, including White, non-Hispanic, Asian, and Hispanic/Latino. In these groups, 39% of households were cost-burdened and

18-19% were severely cost-burdened. Cost burden among Black Indigenous and People of Color (BIPOC) households, in the context of increasing housing prices and rents, is a contributing factor in higher displacement risk in these communities.

**Exhibit 22. Shares of Renter Households, by Race of Householder Who Are Moderately or Severely Housing Cost-Burdened**

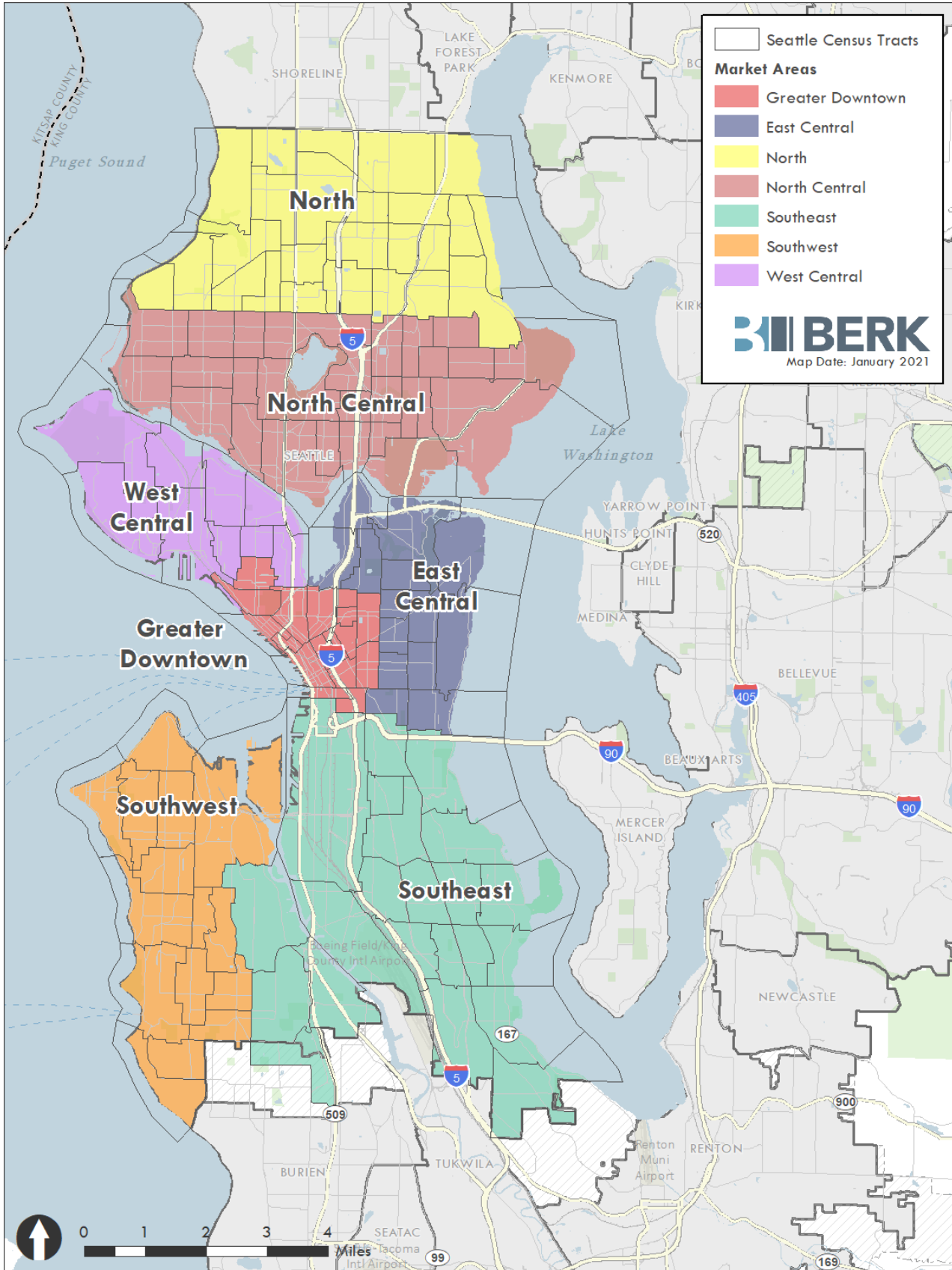


Sources: HUD CHAS (based on ACS 2013-2017 5-year estimates); BERK, 2020.

## CURRENT HOUSING SUPPLY

This section provides a summary of the housing supply and market conditions in Seattle as of approximately June 2020. In most cases we summarize conditions citywide as well as by seven different market areas shown in Exhibit 23. Seattle is a large and diverse city, with housing affordability and market trends varying significantly across the community. The market areas are useful for comparing affordability and trends in different areas. More information about data sources used in this analysis is available in Appendix A: Data Sources.

**Exhibit 23. Market Areas Used for Summarizing Housing Supply**



## Housing Inventory

Seattle has approximately 370,000 housing units. **Exhibit 24** shows the breakdown of all units by unit type as well as market area. Nearly 80% of all housing units are either single family homes or apartments. A much smaller share fall into middle-density categories such as duplexes or townhomes.

**Exhibit 24. Total Housing Units by Type and Market Area**

Unit Type	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Total
<b>Total</b>	<b>82,112</b>	<b>35,084</b>	<b>29,022</b>	<b>54,712</b>	<b>83,193</b>	<b>40,354</b>	<b>45,292</b>	<b>369,772</b>
<b>Percentage by unit type</b>								
Detached Single Family*	0.8%	34.2%	37.6%	49.1%	42.4%	53.1%	59.6%	36.3%
<b>Multifamily housing types:</b>								
Duplex	0.3%	4.0%	3.3%	1.6%	3.8%	2.2%	2.2%	2.3%
Triplex	0.2%	1.8%	2.1%	1.0%	1.9%	1.0%	1.0%	1.2%
4-Plex	0.3%	1.7%	1.4%	0.9%	1.1%	1.3%	1.2%	1.0%
Townhome	0.7%	8.3%	4.9%	5.6%	5.6%	7.1%	6.2%	5.0%
Condominium	17.1%	10.5%	12.6%	7.1%	6.6%	7.8%	3.0%	9.5%
Apartment	78.2%	38.0%	36.3%	33.0%	37.2%	25.8%	25.6%	43.0%
Senior Housing**	2.1%	1.4%	1.5%	1.7%	1.3%	1.7%	1.1%	1.6%
Other***	0.3%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.1%

\* Detached single family may include some accessory dwelling units. King County Assessor does not track ADUs or DADUs separately so we cannot reliably summarize the number of ADUs in this inventory. It is also possible there are many additional units in ADUs that are not included in the totals. Between 1994 and 2020, Seattle permitted 862 DADUs and about 1,900 ADUs.

\*\* Senior Housing consists of properties classified by the Assessor as “Retirement Facilities” and other housing facilities restricted to older adults. This category does not include nursing homes or other medical facilities.

\*\*\* Housing units classified as “Other” include unique residence types such as houseboats, caretaker quarters, housing attached to private schools and churches, and housing units in certain historic properties.

Sources: City of Seattle tabulation of King County Assessor data, 2020; BERK, 2020.

### Accessory Dwelling Units (ADUs)

An ADU is a small independent residential dwelling located on the same lot as a detached single family home. These units may be rented to an unrelated household or occupied by an extended family member. Some are used as short-term rentals, while others are in the long-term rental supply. King County Assessor data does not include separate records for ADUs. Therefore, it is impossible to separate these units out in the inventory shown in **Exhibit 24**. However, the City of Seattle does maintain records of permitted ADUs. Between 1995 and 2019, the City estimates there have been 550 detached ADUs and about 1,633 attached ADUs permits issued.

### Multifamily Housing

**Exhibit 25** shows the percentage of multifamily properties by number of units on the property for each market area. This tabulation includes just about all units in Seattle that are not detached single family homes or ADUs.<sup>13</sup> This includes duplex/triplex/4-plex units and townhomes. In Greater Downtown, a very large share of total units is in buildings with more than 50 units. Other market areas show a greater diversity of building sizes. Citywide, about 17% of all multifamily units are in smaller buildings with five units or fewer.

**Exhibit 25. Multifamily Residential Units by Units in Building**

Units in Building	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Citywide
5 Units or Fewer	2%	27%	22%	19%	25%	27%	28%	17%
6 - 10 Units	2%	11%	12%	7%	10%	8%	7%	7%
11 - 20 Units	5%	15%	12%	9%	10%	13%	11%	9%
21 - 50 Units	17%	19%	19%	18%	15%	17%	12%	17%
More than 50 Units	74%	28%	35%	47%	39%	35%	41%	51%

Sources: City of Seattle tabulation of King County Assessor data, 2020; BERK, 2020.

### Age of Housing Stock

Exhibit 26 summarizes single-family and multifamily housing units by the age of building. Single-family stock tends to be older, with the majority built 50-100 years ago. Most multifamily stock was built between 10 and 50 years ago. As shown in the following section, rents in older multifamily housing stock

<sup>13</sup> King County Assessor records consider just about all units that are not detached single-family homes to be multifamily, including duplex/triplex/4-plex units and townhomes.

are significantly less expensive, on average. Greater Downtown has the largest proportion of new housing stock.

**Exhibit 26. Housing Units by Age of Building and Market Area**

	Less than 5 Years	5-10 Years	10-20 Years	20-50 Years	50-100 Years	More than 100 Years
<b>Greater Downtown</b>						
Single Family	2%	2%	6%	34%	17%	38%
Multifamily	21%	21%	20%	36%	1%	0%
<b>East Central</b>						
Single Family	2%	4%	8%	15%	33%	37%
Multifamily	15%	13%	17%	48%	3%	5%
<b>West Central</b>						
Single Family	3%	3%	7%	11%	54%	22%
Multifamily	15%	13%	19%	45%	5%	3%
<b>North</b>						
Single Family	2%	3%	5%	16%	71%	3%
Multifamily	8%	13%	35%	40%	4%	0%
<b>North Central</b>						
Single Family	3%	2%	5%	8%	55%	28%
Multifamily	14%	20%	21%	36%	5%	4%
<b>Southwest</b>						
Single Family	2%	3%	6%	14%	59%	15%
Multifamily	11%	16%	35%	33%	4%	1%
<b>Southeast</b>						
Single Family	2%	3%	7%	17%	52%	19%
Multifamily	15%	17%	24%	37%	5%	2%
<b>Citywide</b>						
Single Family	2%	3%	6%	13%	56%	19%
Multifamily	16%	18%	23%	38%	3%	2%

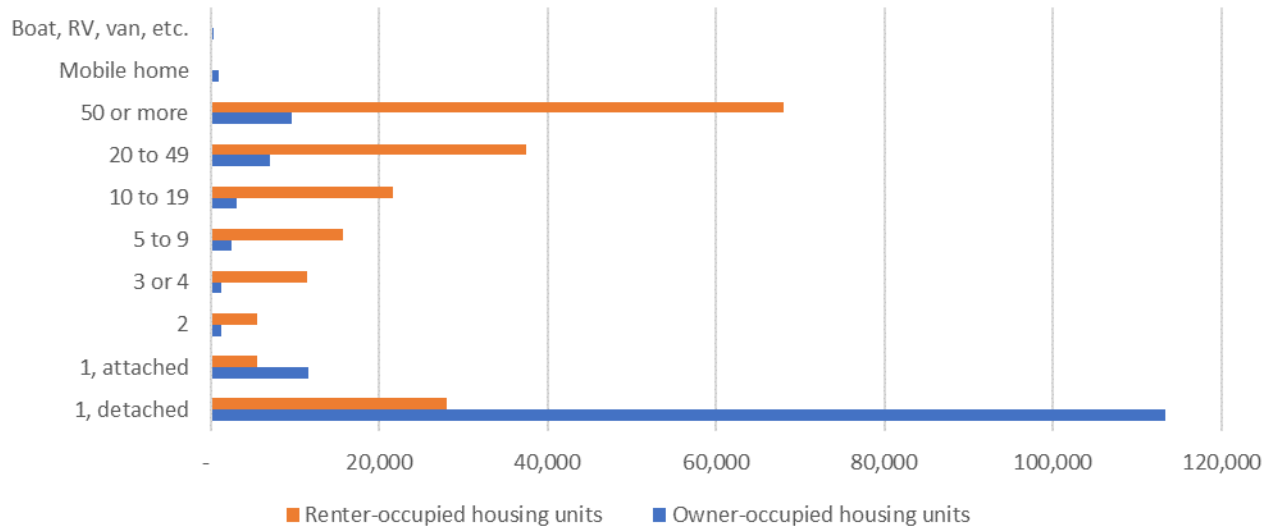
Sources: City of Seattle tabulation of King County Assessor data, 2020; BERK, 2020.

## *Housing Supply by Tenure*

Exhibit 27 presents estimated renter- and owner-occupied housing units by building size and type. About 75% of the owner-occupied units are single family detached homes (“1, detached”). The other housing types most commonly in owner occupancy are townhomes (“1, attached”), and condominiums in larger buildings with 20 or more units. About 55% of renter-occupied units are in larger buildings with 20 or more units. These are typically apartment buildings but can also be condominiums. Over a quarter of renter-occupied units are in smaller multifamily buildings with 2-19 units. About 28,000 renter households reside in single-family detached homes (20% of all occupied single-family detached homes). This count has remained steady over the past decade, increasing by only 1,000 units since 2010.



**Exhibit 27. Owner- and Renter-Occupied Housing Units by Units in Structure and Housing Type**

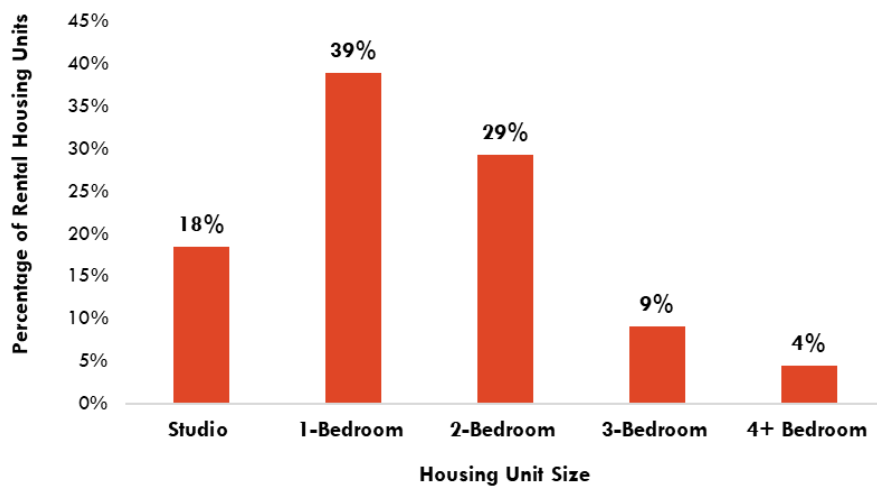


Units in Structure	Owner-occupied housing units	Percent of total owner-occupied	Renter-occupied housing units	Percent of total renter-occupied
1, detached	113,309	75%	28,015	15%
1, attached	11,548	8%	5,540	3%
2	1,292	1%	5,465	3%
3 or 4	1,286	1%	11,428	6%
5 to 9	2,473	2%	15,628	8%
10 to 19	3,066	2%	21,561	11%
20 to 49	7,016	5%	37,404	19%
50 or more	9,673	6%	67,993	35%
Mobile home	860	1%	58	0%
Boat, RV, van, etc.	364	0%	9	0%
<b>Total (all units)</b>	<b>150,887</b>		<b>193,101</b>	

Sources: American Community Survey 1-Year Estimates, 2019.

Exhibit 28 breaks down the rental housing supply in Seattle by number of bedrooms, based on data from the ACS.

**Exhibit 28. Renter-Occupied Housing Units by Number of Bedrooms**



Source: 2014-2018 ACS 5-Year Estimates

## Rental Housing Affordability

Between 2010 and early 2020 rents in Seattle increased quickly. In many areas rents increased faster than median incomes. While average market rents declined significantly during the COVID pandemic—particularly in areas closer to downtown—there are already signs of rents climbing up again as of April 2021. This section summarizes the affordability of market rate rental housing supply as of late May 2020.

The rents of market rate rental housing are not restricted or regulated for affordability and instead are determined in a competitive market. In such housing, landlords choose how to set rental rates, typically (but not always) with the goal of maximizing rental income. The source of data for market rents is CoStar, a real estate data and analytics service. CoStar provides data primarily for apartments with five or more units. It does not include rents for detached single family rents as well as most townhouses and multiplexes. More details about CoStar are available in Appendix A: Data Sources.

With respect to market rate rental data, there are typically two types of rent recorded:

- “Asking rent” is typically the amount expressed by a landlord as the unadjusted, published rate that would be included in a rental contract.
- “Effective rent” is the asking rent less any concessions offered to a renter. Effective rent is typically expressed as an average rate per

## Housing Affordability and Building Size

Do larger complexes charge higher rents? A 2016 study\* found that small apartment complexes and multiplexes provide a significant share of naturally-occurring affordable housing: 53% of these units are affordable at 80% AMI and 13–14% are affordable at 60% AMI. This is a considerable stock of housing accessible at lower incomes.

While these buildings represent an important part Seattle market rate housing stock, there are several reasons that explain these differences in rents, some of which have nothing to do with building size:

- Large high-rise apartment buildings in Downtown and Belltown/SLU command significantly higher rents because of access to central employment centers and high-quality views.
- Smaller buildings tend to be older and more depreciated. They are also more commonly found in neighborhoods that have seen less development activity. These factors are also linked to lower rents.

There are still distinct advantages to smaller apartment buildings. They can be accommodated as infill and redevelopment in many areas of the city, and the corresponding land and construction costs are usually lower. Lower requirements for capital also make these buildings more attractive to smaller investors.

\* Source: [2016 Monitoring Report: Affordability of Unsubsidized Rental Housing in Seattle](#)

year, even if tenants are provided free rent, moving allowances, or other benefits specifically at the start of a lease.

Effective rent is typically lower than asking rent, particularly during lease up of new buildings when landlords offer concessions to quickly increase occupancy. Additionally, effective rents may also reflect adaptations to periods of economic stress, with increased concessions used to attract and retain tenants. “Market Rent” for the purpose of this report refers to estimates of **effective** rents.

The CoStar market rental data used in this study reflects conditions as of late May 2020. During Q2 2020, rents declined slightly year over year (-0.8% citywide) but had not yet declined to the price levels seen in Q4 2020 (-7.4% YOY). Concession rates in Q2 2020 were at 1.6%, an increase from 0.8% in Q1 but still significantly lower than the 2.6% concession rate in Q4 2020 and the recent high of 3.0% in Q4 2020. While these values reflect some nominal impacts from the pandemic, Q2 statistics are likely to be reasonably consistent with pre-pandemic market rents.

**Exhibit 29** shows median market rents by market area and unit size based on rent data for units that CoStar tracks by unit size. There are significantly fewer rental units with three bedrooms than the other categories, and there is also a larger range of price points. Therefore, the variation in median rent for three-bedroom units by market area is greater than for other unit sizes.

**Exhibit 29. Median Market Rent in Multifamily Units by Unit Size (Bedrooms)**

	All Units	0-Bedroom	1-Bedroom	2-Bedroom	3-Bedroom
Greater Downtown	\$2,251	\$1,460	\$2,216	\$3,197	\$5,513
East Central	\$1,805	\$1,401	\$1,700	\$2,211	\$2,255
West Central	\$2,090	\$1,608	\$1,913	\$2,495	\$3,273
North	\$1,441	\$1,069	\$1,337	\$1,638	\$2,214
North Central	\$1,698	\$1,265	\$1,764	\$2,053	\$2,226
Southwest	\$1,691	\$1,250	\$1,637	\$1,739	\$3,025
Southeast	\$1,404	\$1,195	\$1,296	\$1,761	\$2,436
Citywide	\$1,841	\$1,362	\$1,838	\$2,290	\$3,025

Source: CoStar, 2020.

Typically, newly constructed housing is rented at a higher cost than older housing. **Exhibit 30** shows average market rent per square foot by age of structure. Citywide, market rents in housing built during the past decade is about 73% higher than for housing built in the 1970s. Among buildings constructed prior to 1970, average rents typically increase slightly with age. This may be due to higher quality

construction, renovation, or location in high-demand older neighborhoods.

**Exhibit 30. Average Market Rent per Square Foot in Multifamily Buildings by Age of Structure**

Year Built	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Citywide
2011 - 2020	\$3.60	\$3.33	\$3.15	\$2.79	\$3.31	\$2.99	\$2.79	\$3.43
2001 - 2010	\$3.10	\$2.83	\$2.93	\$2.35	\$2.72	\$2.44	\$1.81	\$2.91
1991 - 2000	\$2.85	\$2.39	\$2.58	\$1.95	\$2.45	\$2.06	\$1.26	\$2.54
1981 - 1990	\$2.90	\$2.43	\$2.40	\$1.84	\$2.24	\$2.11	\$2.34	\$2.18
1971 - 1980	\$2.96	\$2.38	\$1.74	\$1.79	\$1.85	\$1.55	\$2.00	\$1.90
1961 - 1970	\$2.69	\$2.21	\$2.08	\$1.75	\$1.96	\$1.69	\$1.86	\$2.04
1951 - 1960	\$2.48	\$2.33	\$2.16	\$1.92	\$2.09	\$1.83	\$1.65	\$2.13
1941 - 1950	\$2.86	\$2.42	\$2.05	\$2.08	\$2.55	\$1.32	\$1.41	\$2.64
1940 or Earlier	\$2.58	\$2.34	\$2.14	\$1.88	\$2.31	\$1.90	\$2.28	\$2.49
Total	\$3.20	\$2.63	\$2.62	\$1.98	\$2.72	\$2.28	\$2.18	\$2.79

\*Calculations include only properties where information on average rent and average unit square footage is reported.  
Source: CoStar, 2020.

**Exhibit 31** shows the maximum rent that would be affordable for different sized units based on household income relative to AML. It assumes the household would spend no more than 30% of income on rent.<sup>14</sup> Following HUD’s methodology for calculating income limits, including household size adjustments, for the purpose of estimating affordability by unit size, this table assumes that a 0-bedroom unit (e.g. studio) is occupied by a 1-person household, and that larger units are occupied by 1.5 household members per bedroom. The thresholds in this chart may be different from those published for purposes of regulating some rent- and income-restricted housing because they do not reflect adjustments (e.g., high housing cost

<sup>14</sup> Typically, rent and the cost of tenant-paid utilities are accounted for when evaluating the affordability of housing costs for renters. However, CoStar data do not allow us to discern whether cost for utilities are included in the rent. If data consistently included tenant-paid utilities with rents, the affordable share of the supply would be lower.

adjustment) required for certain low-income housing programs.

Note that rent- and income-restricted units were filtered based on available information. However, CoStar may not have complete information about whether units are in fact restricted in this way, and as such there is some uncertainty whether these units have been filtered from the dataset.

**Exhibit 31. Affordable Rent by Income Level and Unit Size, 2020**

% of AMI	0-Bedroom	1-Bedroom	2-Bedroom	3-Bedroom	4-Bedroom	5-Bedroom
30%	\$595	\$637	\$765	\$884	\$986	\$1,088
50%	\$992	\$1,062	\$1,275	\$1,473	\$1,643	\$1,813
80%	\$1,586	\$1,700	\$2,040	\$2,357	\$2,629	\$2,900
100%	\$1,983	\$2,124	\$2,549	\$2,946	\$3,286	\$3,626
120%	\$2,379	\$2,549	\$3,059	\$3,535	\$3,943	\$4,351
150%	\$2,974	\$3,187	\$3,824	\$4,419	\$4,929	\$5,438

Sources: HUD, 2020; BERK, 2020.

**Exhibit 32** shows the average, median, and 25<sup>th</sup> percentile market rents for multifamily buildings in CoStar’s inventory.

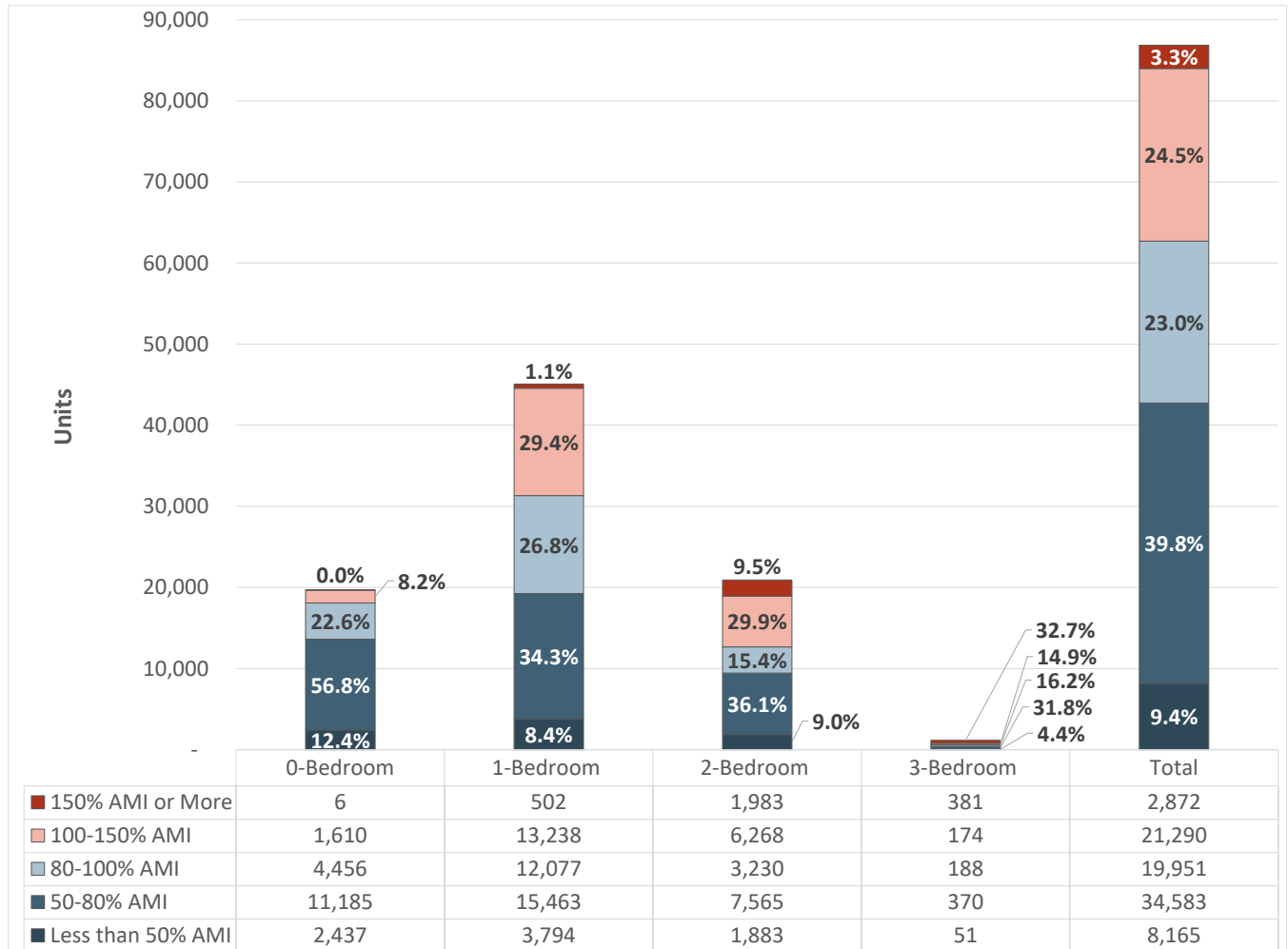
**Exhibit 32. Affordability Levels of Market Rents in Multifamily Buildings by Unit Size**

	0-Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	All Units
<b>Average Rent</b>	\$1,406	\$1,849	\$2,491	\$3,906	\$1,923
Affordability Level (% of AMI)	71%	87%	98%	133%	86%
<b>Median Rent</b>	\$1,362	\$1,838	\$2,290	\$3,025	\$1,841
Affordability Level (% of AMI)	69%	87%	90%	103%	83%
<b>25<sup>th</sup> Percentile Rent</b>	\$1,130	\$1,421	\$1,701	\$2,226	\$1,405
Affordability Level (% of AMI)	57%	67%	67%	76%	65%

Sources: CoStar, 2020; BERK, 2020.

**Exhibit 33** summarizes data about market rents in Seattle by unit size and affordability level. This analysis is based on data about average market rents by unit size in individual buildings tracked by CoStar (86,861 units in buildings with sufficient data available).<sup>15</sup> It shows that 0-bedroom apartments are much more likely than other unit sizes to be affordable at lower income levels. Nearly 70% of 0-bedroom units are affordable at 80% of AMI or below, compared to 43% of one-bedroom units and 40% of two-bedroom units.

**Exhibit 33. Affordability Levels of Market Rate Rental Units in Multifamily Buildings Tracked by CoStar, 2020**



Sources: CoStar, 2020; BERK, 2020.

<sup>15</sup> Four-bedroom units were excluded from this analysis because of the small number recorded in CoStar data (51 units in total). Also excluded were all rent/income-restricted units (defined as “Affordable” units in CoStar). Sufficient data for this analysis is available for about 77% of all units in CoStar’s inventory.

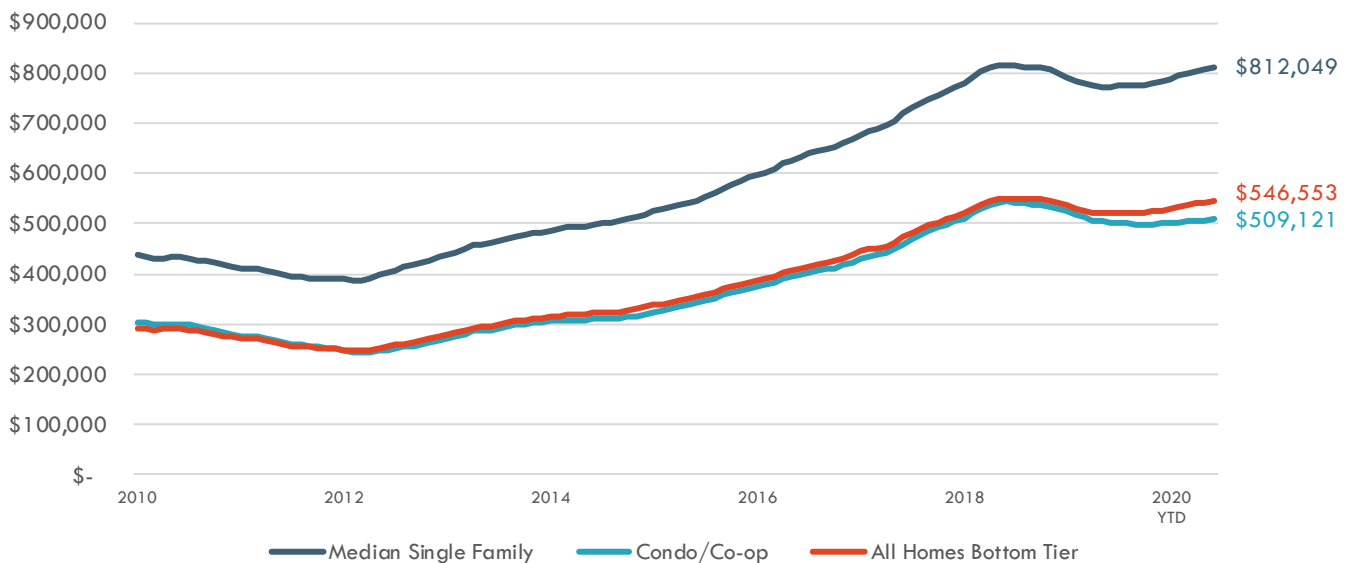
## Ownership Housing Affordability

Ownership housing in Seattle is in high demand. As shown earlier in this report (see page 7), median home values have increased significantly faster than median incomes over the past decade. While demand for downtown condos has diminished during the COVID pandemic, demand for other ownership housing products has remained quite strong, with prices continuing to rise and inventory low. These high housing costs create insurmountable barriers to entering the Seattle housing market that impact residents throughout the Seattle region. This section examines the affordability of ownership housing products in Seattle.

There are two different ways to assess homeownership affordability, and both are important to understanding housing needs. One approach is to assess the affordability of housing payments associated with the ownership of specific homes for their current owners, many of whom may have purchased their homes when housing prices were much lower. The analysis of ownership housing cost-burden in the Current Housing Needs section (see Exhibit 20 on page 22) provides the best information on this theme. The second approach is to assess the affordability of ownership housing products for new buyers. Here we address the latter approach.

According to the Zillow Home Value Index, the median single-family home in Seattle was worth over \$800,000 in July 2020, while the median value condominium was nearly \$550,000. Exhibit 34 shows how values have nearly doubled over the past decade, making homeownership further out of reach for many Seattle-area residents. This chart also includes “Bottom Tier” homes, which Zillow defines as those in the bottom third of all housing values (inclusive of detached single-family, townhomes, and condominiums). The median value home in this tier was just over \$500,000 in July 2020. It is likely that the units within this tier are almost entirely lower-cost condominiums and townhomes.

**Exhibit 34. Median Home Values in Seattle (Based on Zillow Home Value Index)**



Sources: Zillow, 2020; BERK, 2020. Values not adjusted for inflation.

Home values vary significantly across the city. Exhibit 35 summarizes the assessed value of all single-family homes by market area. Exhibit 37 shows this same information for condominiums. Assessed value is

typically about 91% of actual market value.<sup>16</sup> So, property assessor data is a good proxy for total home value, particularly for understanding the full distribution of units by value range. As shown in the two exhibits, each market area has a different mix of home values. Overall, about a third of single-family homes are assessed at a value of \$600,000 or below. About 20% are assessed at over a million. Condominiums are typically less expensive—nearly one third are valued below \$400,000.

**Exhibit 35. Single-Family Residential Units by Assessed Value**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Total
Total Units	860	12,049	10,935	26,876	35,265	21,433	26,990	134,411
Percentage of homes by assessed value								
Less than \$200k	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%
\$200-\$400k	0.7%	0.3%	0.1%	2.0%	0.3%	6.7%	17.3%	5.1%
\$400-\$600k	5.3%	7.7%	3.6%	39.2%	10.5%	37.7%	48.7%	27.4%
\$600-\$800k	10.8%	18.7%	18.1%	34.4%	40.8%	32.0%	20.5%	30.0%
\$800k-\$1M	12.6%	19.1%	25.5%	12.4%	25.7%	12.6%	6.9%	16.5%
\$1M or More	70.6%	54.0%	52.7%	12.0%	22.7%	11.1%	6.3%	21.0%

Sources: City of Seattle, 2020; King County Assessor, 2020; BERK, 2020.

<sup>16</sup> Based on a 5-year average of King County's "Real Property Tax Ratio", a value calculated by the WA State Department of Revenue that estimates the assessed value of real property in a county as a percent of actual market value.



**Exhibit 36. Townhome Units by Assessed Value**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Total
Total Units	570	2,914	1,419	3,054	4,673	2,850	2,827	18,307
Percentage of homes by assessed value								
Less than \$200k	0.0%	0.5%	0.9%	1.5%	0.5%	0.6%	1.2%	0.8%
\$200-\$400k	0.5%	2.9%	0.8%	4.7%	1.6%	17.1%	8.8%	5.8%
\$400-\$600k	6.5%	15.1%	7.5%	77.0%	12.6%	54.4%	53.2%	36.0%
\$600-\$800k	31.9%	49.2%	46.7%	14.3%	62.8%	22.9%	29.8%	39.0%
\$800k-\$1M	47.4%	25.1%	29.7%	0.5%	21.0%	1.7%	2.7%	13.9%
\$1M or More	13.7%	7.1%	14.4%	1.9%	1.5%	3.3%	4.2%	4.5%

Sources: City of Seattle, 2020; King County Assessor, 2020; BERK, 2020.

**Exhibit 37. Residential Condominium Units by Assessed Value**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Total
Total Units	14,011	3,695	3,670	3,879	5,496	3,167	1,360	35,278
Percentage of condominiums by assessed value								
Less than \$200k	0.1%	0.2%	0.2%	2.8%	0.0%	0.9%	6.7%	0.7%
\$200-\$400k	18.3%	22.6%	33.3%	78.9%	29.3%	42.0%	50.3%	31.9%
\$400-\$600k	38.9%	44.6%	44.4%	16.1%	50.3%	36.1%	32.5%	38.9%
\$600-\$800k	22.0%	18.3%	14.9%	2.1%	15.3%	13.1%	7.3%	16.3%
\$800k-\$1M	8.8%	4.6%	4.5%	0.2%	4.0%	4.6%	2.4%	5.6%
\$1M or More	11.9%	9.8%	2.7%	0.0%	1.1%	3.3%	0.7%	6.5%

Sources: King County Assessor, 2020; City of Seattle, 2020.

Exhibit 38 estimates the income needed to afford a home in Seattle under two scenarios. Both scenarios are based on home values as measured with the Zillow Home Value Index. The first scenario assumes a median value home and a household that has a 20% down payment available. This scenario models affordability for a hypothetical household that has equity from the sale of a previously owned home. The second scenario assumes the purchase of a median value condominium. This scenario models a hypothetical first-time buyer of a condominium who can only manage the minimum down payment for an FHA loan. Both scenarios require an income well above AMI (143% and 130%) for a 3-person household.

**Exhibit 38. Estimated Cost of Home Ownership for Median Value Home and Condominium in Seattle (based on Zillow Home Value Index)**

	<b>Median home with 20% down payment</b>	<b>Median condo with 3.5% down payment</b>
<i>Monthly Mortgage</i>		
Value (\$)	\$ 812,049	\$ 509,121
Down payment (\$)	\$ 162,410	\$ 17,819
Mortgage amount (\$)	\$ 649,639	\$ 491,302
Interest rate	3%	3%
Monthly payments over course of loan	360	360
<b>Monthly mortgage payment (\$)</b>	<b>\$ 2,739</b>	<b>\$ 2,071</b>
<i>Annual Housing Expenses</i>		
Mortgage payments (\$)	\$ 32,867	\$ 24,856
Property taxes (\$)	\$ 6,847	\$ 4,293
Property tax fees (\$)	\$ 573	\$ 573
Homeowners insurance (\$)	\$ 1,624	\$ 1,018
Mortgage insurance (\$)		\$ 4,913
Condo HOA fees (\$)		\$ 2,400
<b>Annual costs (\$)</b>	<b>\$ 41,911</b>	<b>\$ 38,053</b>
<b>Monthly costs (\$)</b>	<b>\$ 3,493</b>	<b>\$ 3,171</b>
<i>Income Needed to Afford</i>		
Monthly Income Needed	\$ 11,642	\$ 10,570
<b>Annual Income Needed</b>	<b>\$ 139,704</b>	<b>\$ 126,845</b>
<b>Percent of AMI needed</b> (assumes 3-person household)	<b>143%</b>	<b>130%</b>

Note: Cost estimate for condominium home assumes a 3.5% down payment (the minimum for a Federal Housing Administration loan), mortgage insurance, and condo homeowner’s association (HOA) fees. Median home value reflects the Zillow Home Value Index (HVI) median home value for single-family homes (including townhomes) in Seattle. Cost estimates do not include utilities and home upkeep costs, which vary and are not necessarily related to home sale price. Interest rates at the time of analysis (2020) were at historic lows – more typical interest rates would price additional households out of the market.

See Appendix B: Homeownership Affordability Assumptions for details on calculations.

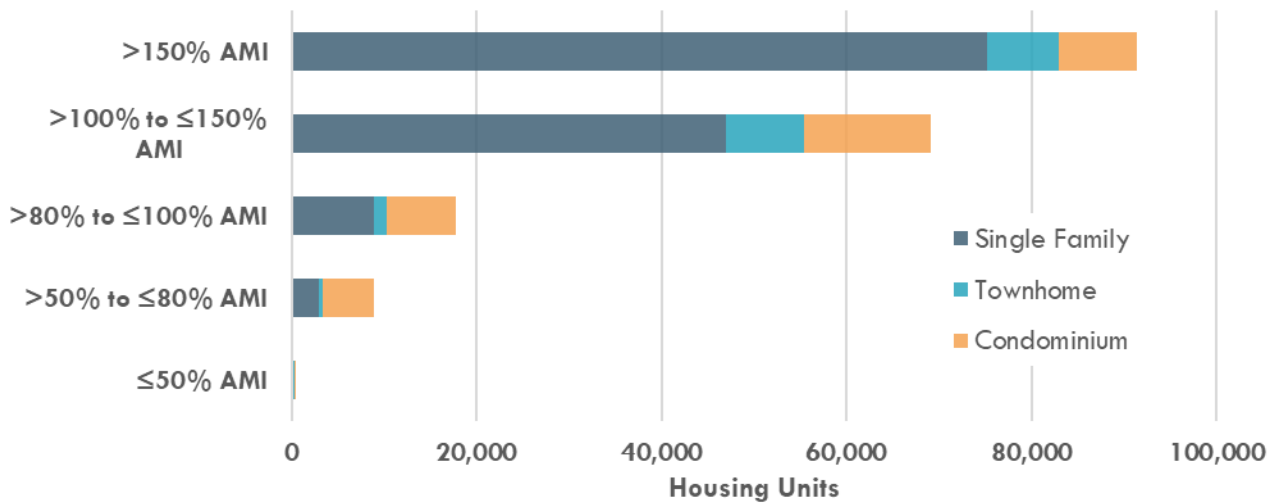
Sources: City of Seattle Office of Housing, 2020; Freddie Mac, 2020; HUD, 2020; King Conservation District, 2020; King County Assessor’s Office, 2020; King County Department of Natural Resources, 2020; Seattle Public Utilities, 2020; Washington State Department of Revenue, 2019; Zillow Home Value Index, 2020; BERK, 2020.

Exhibit 39 summarizes the supply of housing products that can support homeownership (single family, townhomes, and condominiums) by affordability level.<sup>17</sup> The vast majority of units (86%) are affordable

<sup>17</sup> BERK calculated the affordability of individual housing units based on property value data from the King County Assessor with adjustments to reflect market value based on data from Washington State Department of Revenue. Affordability calculations are based on income thresholds for a 3-person household and assumes 3.5% down payment to model 1st time buyer. For more information see Appendix B: Homeownership Affordability Assumptions.

only to households with incomes above AMI (about \$102,000 per year for a three-person household). These calculations are conservative and likely overestimate the number of units at lower affordability levels because they are based on income thresholds which assume a three-person household. The least expensive units are most likely to be small condominiums more suitable for a one- or two-person household. Adjusting for household size would shift more of those units into higher affordability levels.

**Exhibit 39. Single Family, Townhomes, and Condominium Units by Affordability Level, 2020 (Based on King County Assessor data adjusted to reflect market value)**



Source: BERK, 2021. See Appendix B: Homeownership Affordability Assumptions for details.

### Housing Production Trends

Between 2010 and 2019, Seattle added over 69,000 new housing units and demolished nearly 6,000 older housing units, for a net gain of over 63,000 units in total. On average, the city gained 6,300 new units per year, with annual production increasing most years from a low of 2,340 in 2011 following the last economic recession to a high of 10,651 in 2019.

**Exhibit 40. Housing Units Built, Demolished, and Net New Units by Year (2010-2019)**

Year	Units Built	Units Demolished	Net New Units
2010	4,187	(309)	3,878
2011	2,340	(169)	2,171
2012	3,257	(588)	2,669
2013	6,516	(338)	6,178
2014	8,231	(759)	7,472
2015	7,429	(590)	6,839
2016	7,141	(617)	6,524
2017	10,229	(1,407)	8,822
2018	9,251	(672)	8,579
2019	10,651	(501)	10,150
<b>Total</b>	<b>69,232</b>	<b>(5,950)</b>	<b>63,282</b>

Source: City of Seattle permit data, 2020.

Exhibit 41 summarizes permitted units by unit type for each market area, based on City of Seattle permit data. Over 90% of all new units permitted during the past decade were classified as being in multifamily or mixed-use buildings. The final row shows the percentage of all permitted units by market area.

**Exhibit 41. New Housing Units Permitted by Unit Type, 2010-2019**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Total
Single-Family	39	719	414	782	1,406	810	962	5,132
	0.1%	14.1%	8.9%	13.8%	9.2%	14.8%	14.7%	7.4%
Multifamily*	1,819	1,640	792	922	3,321	1,305	1,901	11,700
	6.9%	32.2%	17.0%	16.3%	21.7%	23.9%	29.1%	16.9%
Mixed-Use**	24,670	2,579	3,356	3,690	10,195	3,193	3,435	51,118
	93.0%	50.6%	72.1%	65.3%	66.6%	58.4%	52.6%	73.8%
ADU	7	104	60	115	228	82	147	743
	0.0%	2.0%	1.3%	2.0%	1.5%	1.5%	2.3%	1.1%
DADU	2	53	31	141	147	73	85	532
	0.0%	1.0%	0.7%	2.5%	1.0%	1.3%	1.3%	0.8%
<b>Total</b>	<b>26,537</b>	<b>5,095</b>	<b>4,653</b>	<b>5,650</b>	<b>15,297</b>	<b>5,463</b>	<b>6,530</b>	<b>69,225</b>
<b>Percentage of Total</b>	<b>38.3%</b>	<b>7.4%</b>	<b>6.7%</b>	<b>8.2%</b>	<b>22.1%</b>	<b>7.9%</b>	<b>9.4%</b>	

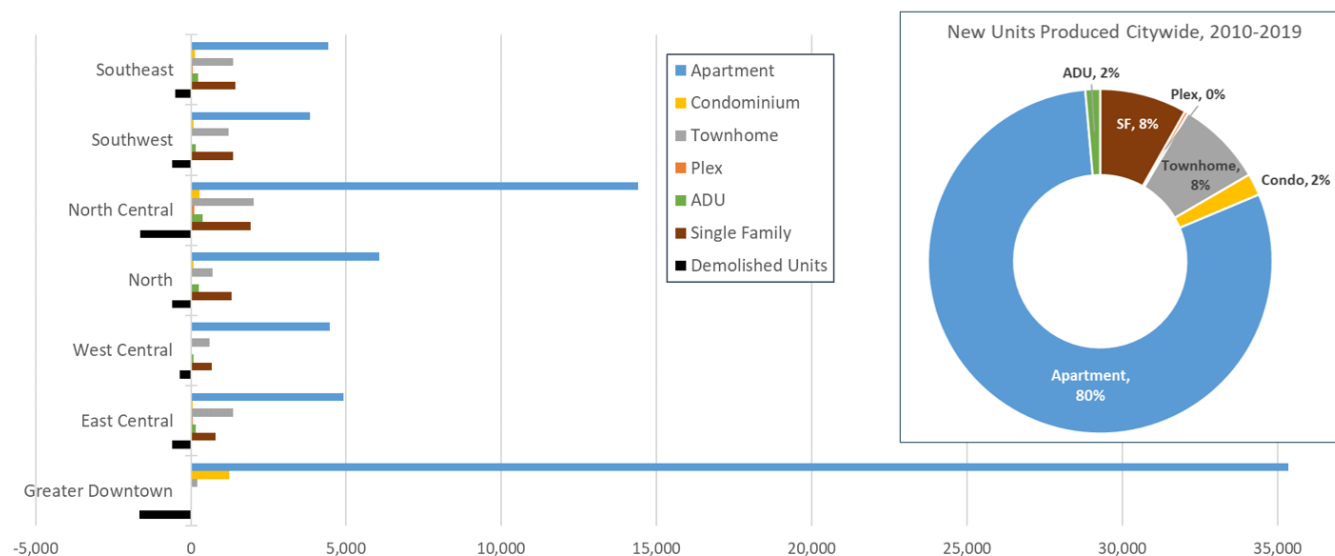
\* Includes duplexes, triplexes, townhomes, and rowhouses in addition to larger structures such as apartment and condominium buildings.

\*\* These are apartments or condominiums in mixed-use buildings.

Source: City of Seattle permit data, 2020.

Exhibit 42 provides a different view of housing production trends based on an analysis of just new development (2010-2019) by year built in King County Assessor data. This view enables differentiating housing types such as townhomes and condominiums. It shows that by far, the largest share of new development has been occurring in the Greater Downtown market area, followed by North Central. Citywide, apartments accounted for 80% of new units. Both single family and townhomes account for significant shares of new units (about 8% each). However, older single-family units are also the most likely type of housing to be demolished to make way for new development. So single-family homes as a share of net new housing production is much lower (see sidebar for discussion).

**Exhibit 42. New and Demolished Units by Housing Type and Market Area, 2010–2019**



Sources: City of Seattle tabulation of King County Assessor data, 2020; City of Seattle Permit Data, 2020 (ADUs and demolitions only); BERK, 2020.

### Capacity for New Housing Development

Seattle recently completed a draft analysis of buildable land capacity for new housing development for the King County Urban Growth Capacity Study. While the final analysis, with potential refinements to the overall and zone-by-zone capacity numbers, won't be available until June 2021, the draft estimates indicates areas where capacity for needed housing may be limited.

The analysis found the city has capacity citywide for an additional 172,000 housing units. Most of that

### Development in Single-Family Zones

The supply of single-family units that are more moderately priced has been shrinking. This is not only due to rising housing costs, but also due to demolition. For every two new units added in single family zones in Seattle, about one existing unit is demolished.\* Between 2010 and 2019, 1,650 units in single family zones were lost to demolitions. Typically, the units demolished were smaller and more affordable, whereas new single-family homes in Seattle are larger and much more expensive. While demolition of some older homes to make way for higher density development is an important part of growing the housing supply to address housing shortages, the new development in single family zones is not contributing to the supply of units affordable to middle-income households. Instead, new single-family units are typically at price points beyond what is affordable at even 150% of AML.\*\*

\* Source: BERK analysis of Seattle permit data, 2010-2019.

\*\* Finding based on a BERK analysis of assessed and market value of new single-family units built 2015-2020.

capacity (81%) is in zones that allow for high density development of approximately 48 units per acre or higher. The majority of housing in these zones would be apartments or condominiums in mid- or high-rise buildings. Seattle has comparatively little land capacity for growth in middle density zones that would allow for “missing middle” formats such as townhomes or multiplexes that can provide an entry point to family-sized ownership housing opportunities. These zones would include a recently created residential small lot zone and also lowrise zones, which accommodate both townhome and apartment units.

**Exhibit 43. Capacity for New Housing Development**

Density Level	Units per Acre	Capacity (units)	Percent of Total Capacity
Low Density Zones	4 - 10	3,735	2%
Medium-Low Density Zones	10 - 24	2,261	1%
Medium-High Density Zones	24 - 48	19,761	11%
High Density Zones	48+	140,182	81%
Additional Accessory Dwelling Unit Capacity		6,500	4%
<b>Total Housing Unit Capacity</b>		<b>172,440</b>	

Source: BERK analysis of City of Seattle urban growth capacity data, 2021. Zoning in Seattle is based on floor area ratio, so actual achieved density in these zones could vary depending upon housing type. The purpose of this summary is to provide a rough estimate of capacity at different levels of density.

**BASELINE GAP ANALYSIS**

This section compares current housing needs to the current housing supply to identify baseline gaps, or shortages of a specific type of housing and/or affordability level. When possible, estimates of these gaps are directly quantified. However, Seattle’s housing market is complex. Shortages in one kind of housing can have spill-over effects in other parts of the market. Therefore, this analysis also includes discussion of findings that have broad implications throughout the housing market.

The summaries of Ownership and Rental Housing Gaps below focus on gaps when comparing housing supply to Seattle’s current housed population. Following these discussions, we address additional gaps based on indicators of unmet housing needs, such as displacement, and low-wage long-distance commuting.

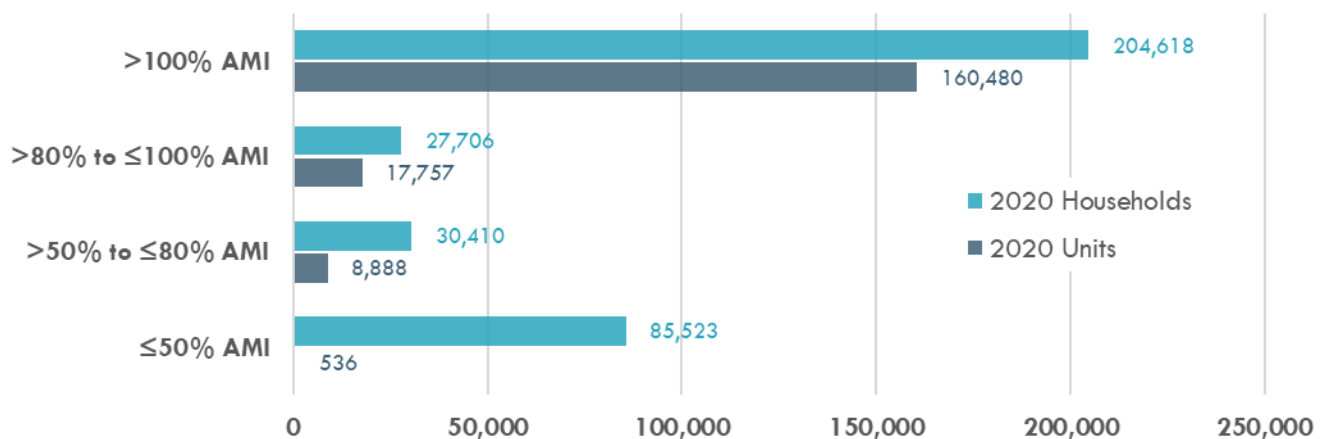
**Ownership Housing Gaps**

Seattle has a shortage of ownership housing products that are potentially affordable for moderate or middle incomes households (~80-120% AMI), and very little inventory of units affordable at lower income levels. Exhibit 44 visualizes this gap by comparing households by income level to housing products



that can support homeownership (single family, townhome, and condominium) by affordability level. Only 14% of these units are estimated to be affordable to households with incomes less than 100% of AMI. Of course, most units are occupied and not available on the market, and over 20% are rented and not available as ownership product.<sup>18</sup> This means the difference between households and unit counts is more dramatic than it appears. However, it is also important to note that not all moderate-, middle-, and upper-income households (80% of AMI or higher) wish to be homeowners. And there are many more households that may have purchased homes outside of Seattle because they could not find adequate or affordable homes available for purchase in the city. Consequently, it is difficult to precisely estimate a gap.

**Exhibit 44. All Households by Income Level Compared to Housing Units That Can Support Homeownership by Affordability Level, 2020**



Notes: Unit summary does not account for units that are renter-occupied. About 18% of single-family units and 37% of townhomes are renter occupied. The percentage of condominiums that are renter-occupied is unknown.

Source: BERK household projections for 2020; BERK affordability calculations based on unit values from KC Assessor, 2020. See Appendix B: Homeownership Affordability Assumptions for details.

Another indicator of unmet demand for ownership housing is the rapidly rising home sales prices that Seattle has experienced over the past eight years. Increased housing production in formats such as townhomes and condominiums, which can provide more supply on less land at a lower price point than single family homes, will be most important for making homeownership attainable to more households.

### Rental Housing Gaps

As with ownership housing, precisely estimating shortages of rental units by affordability is difficult. One reason is that shortages of units in the ownership market are contributing to effective shortages of units in the rental market. This is due to the large number of moderate-, middle-, and upper-income households that are “down renting,” or renting units that would otherwise be affordable to lower income households. As a result, many lower income households must either rent more expensive housing or look outside of the city for housing they can afford.

<sup>18</sup> Source: BERK analysis of Census ACS 5-year estimates, 2014-2019. 18% of detached single-family units are rented, 37% attached single-family units (such as townhomes), and an unknown percentage of condominiums.

Exhibit 45 presents data from 2013-2017 to shed light on this issue. The table includes all rental units in Seattle, including both market and rent/income-restricted. For two different income categories, it compares the cumulative number of rental units that are affordable to the number of renter households in that income group. These estimates indicate there was a shortage of about 16,000 rental units affordable to households at 50% of AMI or below. However, after accounting for higher income households residing in a portion of these units, there was an effective shortage of nearly 30,000 rental units that are both affordable and available at 50% of AMI or below.

The impact of down renting is even more pronounced among units affordable at 80% of AMI or below. These estimates indicate there was a *surplus* of about 9,000 rental units affordable at 80% of AMI or below compared to the number of renter households. However, after accounting for down renting there was a *shortage* of 21,000 rental units that are both affordable and available.

The gaps identified by this approach are very likely to be an underestimate due to data limitations. First, it is collected based on a surveyed sample of Seattle households over the course of five years, 2013-2017. Market rents have increased significantly since this time, which has likely pushed many rental units into higher affordability categories. Second, the estimates do not consider the alignment of households and units within an income range. So, for example, a shortage would not account for a household at 65% of AMI occupying a unit affordable at 75% of AMI. Finally, it does not reflect the needs of residents who have been excluded from housing in Seattle through displacement, homelessness, or inability to find affordable housing in the city.

**Exhibit 45. Affordability and Availability of Rental Units at Specified Income Levels**

	0-50% of AMI (cumulative)	0-80% of AMI (cumulative)
Affordable Renter Units per 100 Households at or Below Income Level	73	111
Affordable and Available Renter Units per 100 Households at or Below Income Level	51	75
Total Shortage or Surplus of Units Affordable to Households at this Income Level	Shortage: 16,285	Surplus: 9,360
Effective Shortage or Surplus of Units Affordable and Available to Households at this Income Level	Shortage: 29,710	Shortage: 20,885

Sources: HUD CHAS (based on ACS 2013-2017 5-year estimates); City of Seattle calculations.

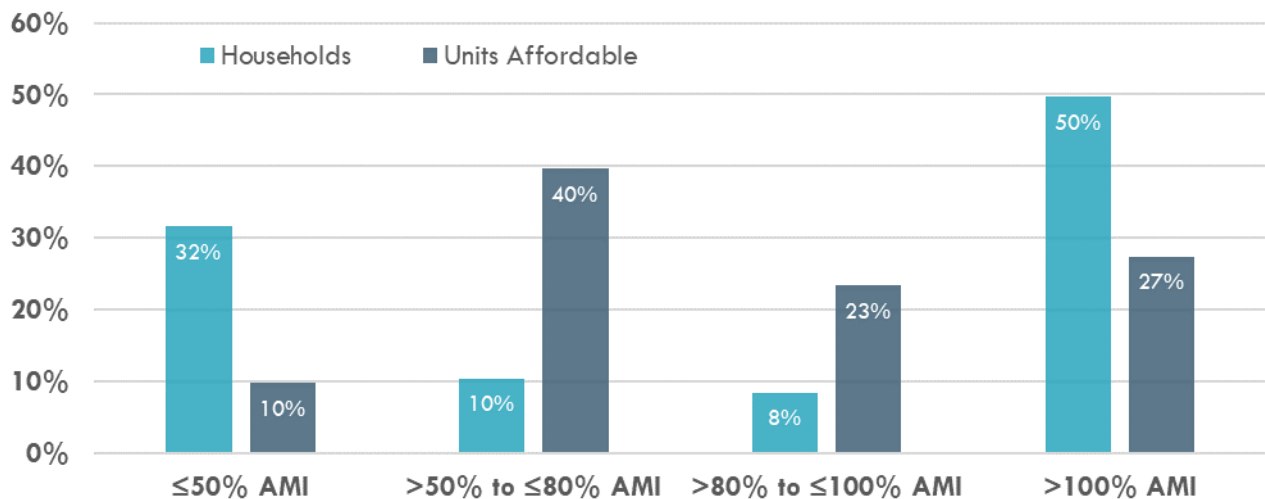
Exhibit 46 provides another view of rental housing gaps, based on the best available data about the affordability of market rate rental units in 2020. Here rent/income-restricted units are excluded, and we show percentages instead of totals due to the lack of complete current data about the affordability of all rental units in the city.

One takeaway from this exhibit is that market rate rental housing will not address needs below 50%.<sup>19</sup> While some of these households live in rent/income restricted housing, many others must compete for market rate rentals, resulting in high cost burden for those households. Additionally, while the market is providing some units affordable at 50% of AMI, these units are being lost due to continued increases in rent as well as demolition for redevelopment. Looking forward, it is unlikely the market will provide units affordable below 50% of AMI.

Exhibit 46 also shows that a large share of market rate rental units is affordable within the 50-80% of AMI range, while the largest shares of renter households are at the top and bottom of the income spectrum. As a result, many middle- and upper-income renter households are down renting and occupying units that would otherwise be affordable to households at or below 80% of AMI.

There are two key challenges in the current rental market. First, an overall shortage of rental housing has created a tight market where many lower income households are unable to find housing they can afford. Secondly, the shortage of entry-level ownership units has created the conditions where many middle income households who would like to buy instead must continue renting to save money for a down payment. As they do so, many are occupying rental housing that would be affordable to lower income households.

**Exhibit 46. Renter Households by Income Level and Market Rate Apartments in CoStar Inventory by Affordability Level, 2020**



Sources: CoStar, 2020; BERK, 2020.

Another challenge in Seattle’s rental market is that households are not always able to find affordable and available units that are large enough for their household needs. Much of the supply of larger rental units are privately rented detached single family or townhomes. In some cases, these units are occupied by higher income households who choose to live in units that may be large compared to their household

<sup>19</sup> Review of CoStar data reveals the possibility that it may underestimate the cost of apartments in some older buildings for which it does not have recently obtained rental survey data. As a consequence, our estimates of units affordable at 50% of AMI range may be overestimated.

size. This removes those larger units from the supply available for rent by moderate and lower income household. While there are many indicators of this problem, comparing the alignment of the rental supply by size compared to need is complicated and not addressed in this report.

## Indicators of Additional Housing Needs That Are Not being Met

The gaps estimated above are based on Seattle's current housed population and housing supply. They do not consider additional housing that would be needed to accommodate demand from households that would like to live in the city but cannot find adequate or affordable housing. While estimating the total demand for people who would live to like in Seattle is impossible, there are several useful indicators of latent housing needs that are not being met by the current housing supply.

### *Underproduction of Housing Compared to Job Growth*

As noted in the Housing Market Trends section, Seattle has experienced periods of rapid job growth during the past few decades. One way to measure the underproduction of housing compared to demand is to calculate the number of new housing units that would be needed to maintain Seattle baseline ratio of jobs per housing unit. If that ratio starts to grow over time due to housing production not keeping pace with jobs gains, then competition for available housing can escalate. This competition drives up housing costs.

In 2005 there were 1.8 jobs for every one housing unit in Seattle. Between 2005 and 2019, the city gained about 169,000 net new jobs, despite major job losses during the Great Recession. Housing production during this period did not keep pace, adding only one unit per two net new jobs. Over the entire period (2005-2019) Seattle would have needed to increase its housing production by an additional 9,000 units just to maintain the baseline jobs to housing ratio.

The mismatch between job growth and housing production was even more pronounced after the recession. Between 2011 and 2019, the ratio of net new jobs to net new housing was even higher at 2.6, or 43% more than the baseline ratio in 2005.

### *Low-Wage Long-Distance Commuters*

When housing production does not keep pace with job gains, one outcome is an increasing number of long-distance commuters. While not all Seattle workers wish to live in the city, workers in low-wage jobs who are commuting very long distances are a good indicator of a lack of adequate workforce housing in the city. In 2018, about 34,500 workers in jobs paying less than approximately \$40,000 per year lived more than 25 miles away from their workplaces in Seattle.<sup>20</sup> At this wage level, a worker could not afford to live in more than 75% of 0-bedroom apartments in Seattle<sup>21</sup>, and there are many one-earner households for whom a 0-bedroom unit would not be large enough. Presumably many of these workers would prefer to live closer to their jobs if adequate and affordable housing was available.

Exhibit 47 shows trends over time regarding the number of low-wage workers by distance traveled to work. Since 2002, the number of low-wage workers commuting more than 25 miles increased by over

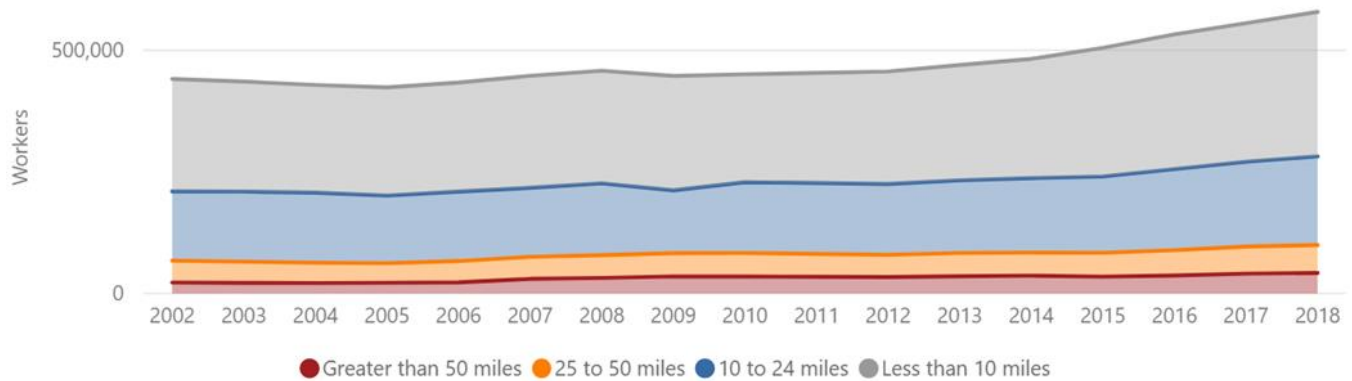
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<sup>20</sup> Source: BERK analysis of Census LEHD Origin-Destination Employment Statistics, 2020.

<sup>21</sup> Source: BERK analysis of rental market data from CoStar, 2020.

300 annually. This indicates the problem is growing, slowly, over time.

**Exhibit 47. Workers Paid Less than \$3,333/month and Employed in Seattle by Distance Traveled to Work**



Sources: US Census Bureau, 2020; LEHD Origin-Destination Employment Statistics, 2002–2018; BERK, 2020.

### Displacement

Other studies have detailed the problems of physical, economic, and cultural displacement that have resulted in the loss of households forced to move outside of the city in search of affordable and appropriate housing. Displacement can result from economic pressures (such as rising rents or loss of income), demolition of rental housing for redevelopment, eviction, foreclosure, or loss of community anchors that tie residents to a place. While it is difficult to precisely measure the number of displaced households, there are indicators the problem is widespread. See the discussion on page 14.

## Future Scenarios

### APPROACH OVERVIEW

In this section we consider how housing needs and the housing supply may change over the next 25 years, as well as future gaps between needs and supply. There is no one answer to how much and what type of housing the city needs into the future. Developing a picture of future need is informed by data and technical assumptions, and just as importantly by goals and policy. Data on baseline conditions and historical housing market trends in the city provide a starting point, while projections of population and demographic growth for the region, along with regional policies and targets, also shape future expectations for the city. The analyses in this report are intended to inform future housing strategies to expand market rate housing supply, choice, and affordability to meet Seattle’s current and future needs.

Using these inputs, BERK developed two distinct and contrasting scenarios, as follows:

- **Scenario 1 – Align with Growth Target and Market Trends:** This scenario is based on two key sets of assumptions about the amount and composition of potential future household growth.

First, we assume that total household growth is capped to be consistent with GMA targets for housing

growth in Seattle. Growth targets for both housing and employment will be adopted by the Growth Management Planning Council later in 2021. While those numbers are still in draft form, City staff provided BERK with an estimated target of 112,000 net new housing units for the 2019-2044 period.<sup>22</sup> As defined in the GMA, the housing target, which is based on regional forecasts and allocations in VISION 2050, the growth plan for the metropolitan region adopted by the Puget Sound Regional Council, sets the minimum expectation for the amount of housing that Seattle will need to plan for in its next comprehensive plan update. This growth assumption represents a significant slowing of the rate of housing production in Seattle, from an average annual growth rate of 1.95% between 2000 and 2020 down to 1.19% over the next 25 years.

Second, we project forward recent historical trends regarding the changing income distribution of Seattle residents. These trends reflect a relative increase in high-income households due in large part to the impacts of Seattle's housing affordability crisis on displacement of long-term residents and the economic exclusion of workers who cannot afford to find a home closer to their workplace. This scenario is *not* intended to be consistent with the City's goals and policies toward making Seattle a more equitable and inclusive city. But it is an outcome that could occur if there are no significant changes to Seattle's current housing market. By projecting this scenario forward, we can analyze how future housing needs and supply can be expected to align if the City takes no action.

- **Scenario 2 – Higher and More Inclusive Growth** This scenario uses two complementary assumptions about future household growth from which the City could plan for and adopt strategies to increase housing that meets the needs of more moderate- and middle-income residents and reduces market pressure on lower income households.

First, we do not cap total household growth for consistency with the expected growth target. Instead, we consider that expanding market rate housing opportunities for households at all income levels, especially below 100% of AMI, would be more likely in a scenario where a greater portion of the regional housing need is met within the city. To represent this alternative potential future, this scenario increases the housing unit growth assumption to 152,000 net new units. This growth assumption still represents a slowing of the rate of housing production, from an average annual growth rate of 1.95% between 2000 and 2020 down to 1.62% over the next 25 years. However, it is significantly more growth than anticipated in the GMA targets included in Scenario 1.

Second, we project a more equitable distribution of this higher household growth across income groups. We assumed that Seattle's growth reflects the income distribution across the entirety of King County, rather than a continuation of historical trends in Seattle. The result is future growth with a proportionally greater share of net new households with incomes below 100% AMI. This does not mean Seattle's distribution of households by income level overall in 2045 would be identical to the county as a whole. But it does reflect a future scenario where the city increasingly reflects broader housing needs across the wider metropolitan area.

In addition to the scenarios described above, we present an analysis of employment forecast data to identify the expected growth in low- and moderate-wage workers who may be excluded from the

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<sup>22</sup> The estimated employment growth target is between 163,000 and 170,000 new jobs over the same period.

housing market if trends continue. The Future Gap Analysis section includes a discussion of implications for future workforce housing needs.

## PROJECTED HOUSING NEEDS

### Scenario 1: Align with Growth Target and Market Trends

To develop this future housing needs scenario, we first analyzed data from the Census and HUD to measure historical trends, and then projected those trends into the future. Exhibit 48 shows the net growth or loss of households by income level in Seattle and the remainder of King County. The analysis compares estimates based on two different five-year periods: 2006-2010 and 2013-2017. During that period, Seattle gained over 34,000 households in total. However, during the same period there was a decrease of about 4,500 households with incomes between 50% and 80% AMI while the number of households in the lowest and highest income brackets increased significantly. The remainder of the King County saw similar trends, but it gained households with incomes below 50% AMI at a much faster rate and the percentage decrease in 50-80% AMI households was less dramatic than in Seattle.

**Exhibit 48. Net Growth or Loss of Households by Income Level, 2006-2010 Compared to 2013-2017**

	City of Seattle		Remainder of King County	
	Change	Percent Change	Change	Percent Change
Total Households	34,395	12%	34,705	7%
Household Income ≤50% AMI	7,140	10%	23,825	24%
Household Income >50% to ≤80% AMI	-4,580	-12%	-5,435	-8%
Household Income >80% AMI to ≤100 AMI	-175	-1%	915	2%
Household Income >100% AMI	32,010	23%	15,400	5%

Sources: HUD CHAS (based on U.S. Census 2000 and ACS 5-year Estimates, 2013-2017); BERK, 2020.

There are a few potential explanations for these changes:

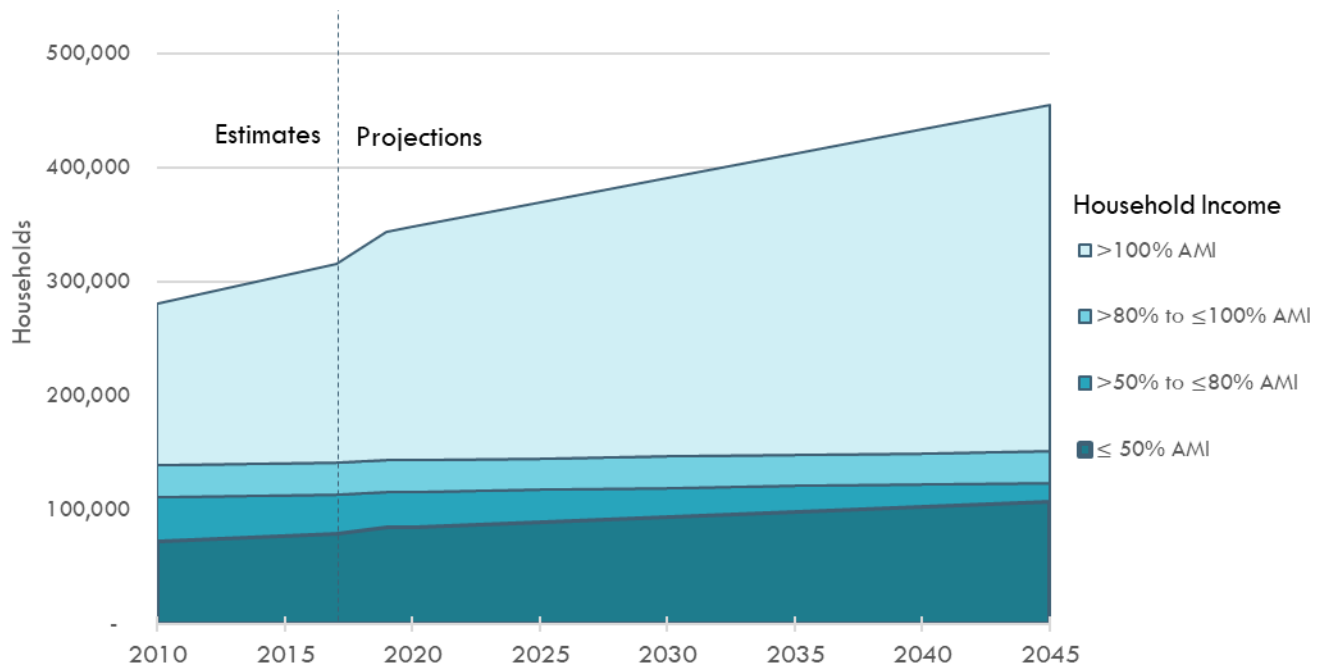
- The Seattle region has seen an increase in higher paying jobs in recent years, which translates to growth in higher income households. As a result, area median family income (AMI) as calculated by HUD has increased faster than inflation. With increases in AMI come increases in the thresholds for classifying households by income level. So, many households with wages that were flat or just keeping pace with inflation could have been reclassified in a lower income level. This can make it seem like there are losses of households at an income level, when in fact many of those households just shifted down to another income level.
- The changes could also be explained by the economic displacement of some households with incomes

50-80% of AMI. In other words, as housing costs increase some households may have been forced to move to less expensive parts of the region.

- Another issue is economic exclusion. Lower and moderate income households are increasingly less likely to move into Seattle due to the rising housing costs and lack of affordable housing options. One indicator of economic exclusion is the significantly more rapid growth in households with incomes below 50% of AMI in King County compared to Seattle.

Exhibit 49 shows estimated households by income level in 2010 and 2017 from CHAS data as well as the Scenario 1 projection of households by income level. The projections assume that the percentage share of net new households by income level over the 2010-2017 period remains constant, even as the total rate of household growth declines. The result is a household forecast by income level consistent with the draft GMA target for total housing unit growth of 112,000 units over the 25-year period.<sup>23</sup> Exhibit 50 shows the same Scenario 1 projections in table format.

**Exhibit 49. Scenario 1: Historic and Projected Households by Income Level**



Note: Total 2019 households are estimates from the ACS. The shares in each income category are projected based on historic trends.

Sources: HUD CHAS (based on ACS 5-year Estimates, 2006-2010 and 2013-2017); ACS 1-year estimates, 2019; City of Seattle, 2020; BERK, 2020.

<sup>23</sup> These household projections assume a 4.7% housing unit vacancy rate. So, the total household growth over this 25-year period is 106,736.



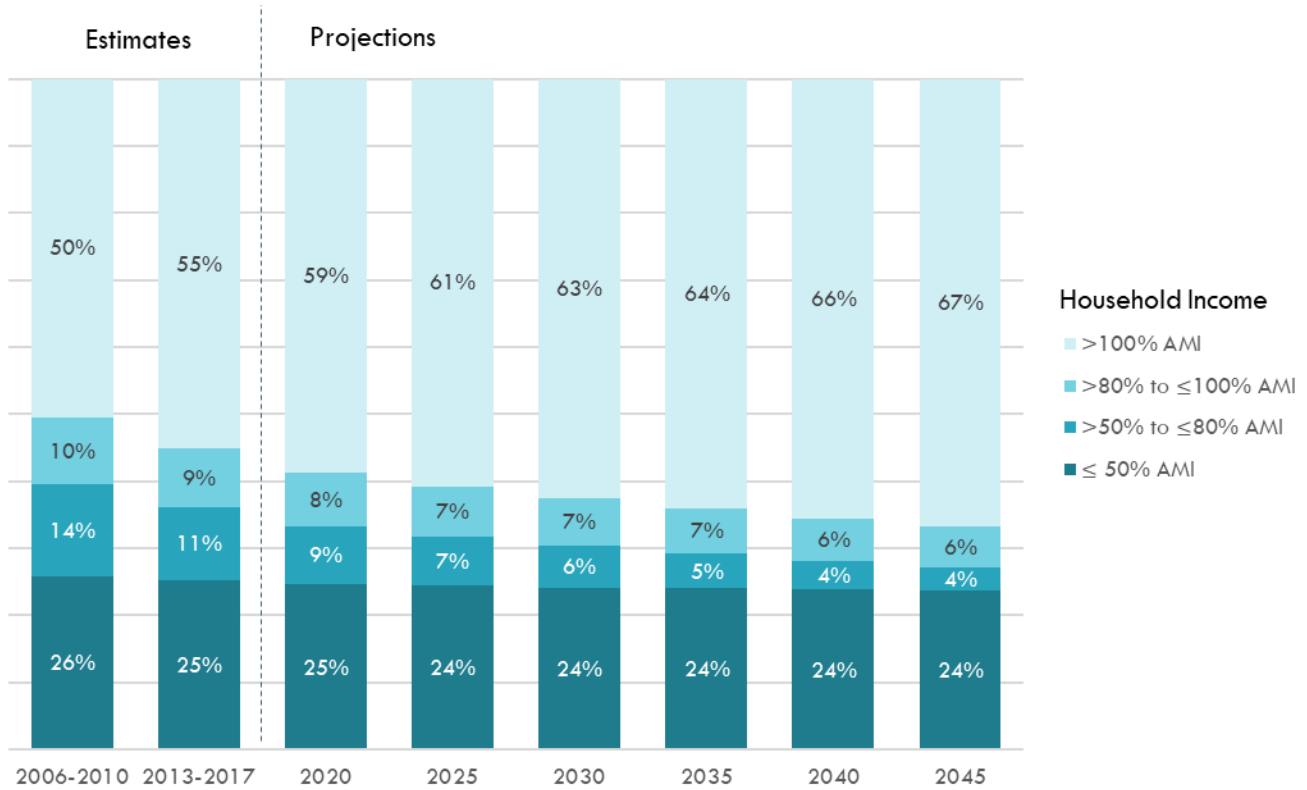
**Exhibit 50. Scenario 1: Projected Households by Income Level**

	2020	2025	2030	2035	2040	2045	Net Change 2020-2045
Total Households	348,257	369,605	390,952	412,299	433,646	454,993	106,736
≤ 50% AMI	85,665	90,096	94,528	98,959	103,390	107,822	22,157
>50% to ≤80% AMI	30,213	27,370	24,527	21,685	18,842	16,000	(14,213)
>80% to ≤100% AMI	27,702	27,593	27,485	27,376	27,268	27,159	(543)
>100% AMI	204,678	224,545	244,412	264,279	284,146	304,013	99,335

Source: BERK, 2020.

These exhibits show how a very large share of the net new growth is projected to be among households with incomes greater than 100% of AMI. The projections also include steady growth in the lowest income bracket as well as significant losses among those 50 to 80% of AMI. Exhibit 51 shows the effect of Scenario 1 projections on the percentage of households by income level. Following historic trends, the share of households with incomes above 100% of AMI increases significantly over time.

**Exhibit 51. Scenario 1: Percentage of Households by Income Level, Historic Estimates and Projections**



Sources: HUD CHAS (based on ACS 5-year Estimates, 2010-2010 and 2013-2017); ACS 1-year estimates, 2019; City of Seattle, 2020; BERK, 2020.

**Scenario 2: Higher and More Inclusive Growth**

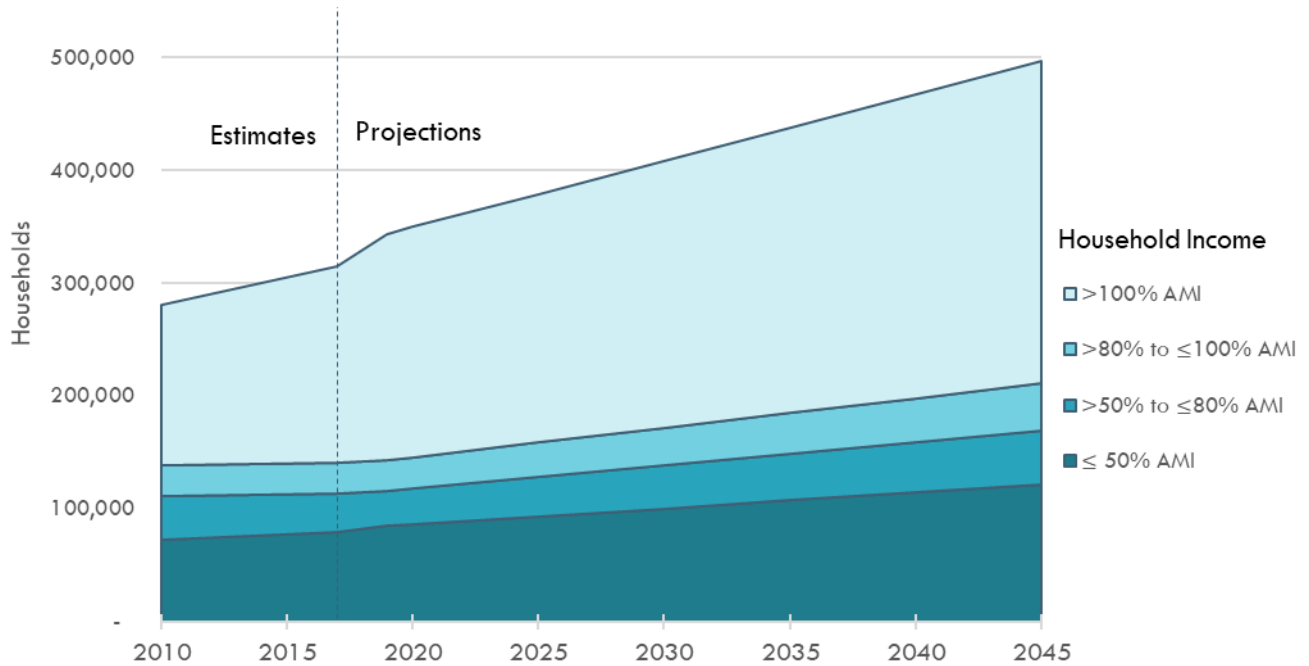
This scenario models an alternative future that is more inclusive of households with incomes below 100% AMI. To accommodate more inclusive growth, this scenario assumes Seattle will need to accommodate greater growth overall than is anticipated in GMA targets and Scenario 1. This is because the cost of housing will always be bid up by higher income households in a highly competitive market with limited supply. For market rate housing to meet the needs of households with incomes below 100% of AMI, it will need to be more plentiful.

To model a future where more households are accommodated, Scenario 2 increases the assumed household growth to be consistent with adding 40,000 additional units to the GMA housing target, for a total of 152,000 units<sup>24</sup> over the next 25 years.<sup>25</sup> Then, in contrast to Scenario 1, this scenario does not assume a continuation of past trends in gains or losses of households by income. Instead it assumes that the income distribution of all net new households in Seattle will match the baseline income distribution of King County as a whole. The resulting projection is shown in Exhibit 52 and Exhibit 53.

<sup>24</sup> This is equivalent to 146,736 households assuming a 4.7% vacancy rate.

<sup>25</sup> Scenario 2 assumes an average annual growth rate of 1.62% over the next 25 years. While significantly faster than the 1.19% growth rate assumed in Scenario 1, it is still slower than Seattle’s historical average growth rate of 1.95% between 2000 and 2020.

**Exhibit 52. Scenario 2: Historic and Projected Households by Income Level**



Note: Total 2019 households are estimates from the ACS. The shares in each income category are projected based on historic trends.

Sources: HUD CHAS (based on ACS 5-year Estimates, 2010-2010 and 2013-2017); ACS 1-year estimates, 2019; City of Seattle, 2020; BERK, 2020.

**Exhibit 53. Scenario 2: Projected Households by Income Level**

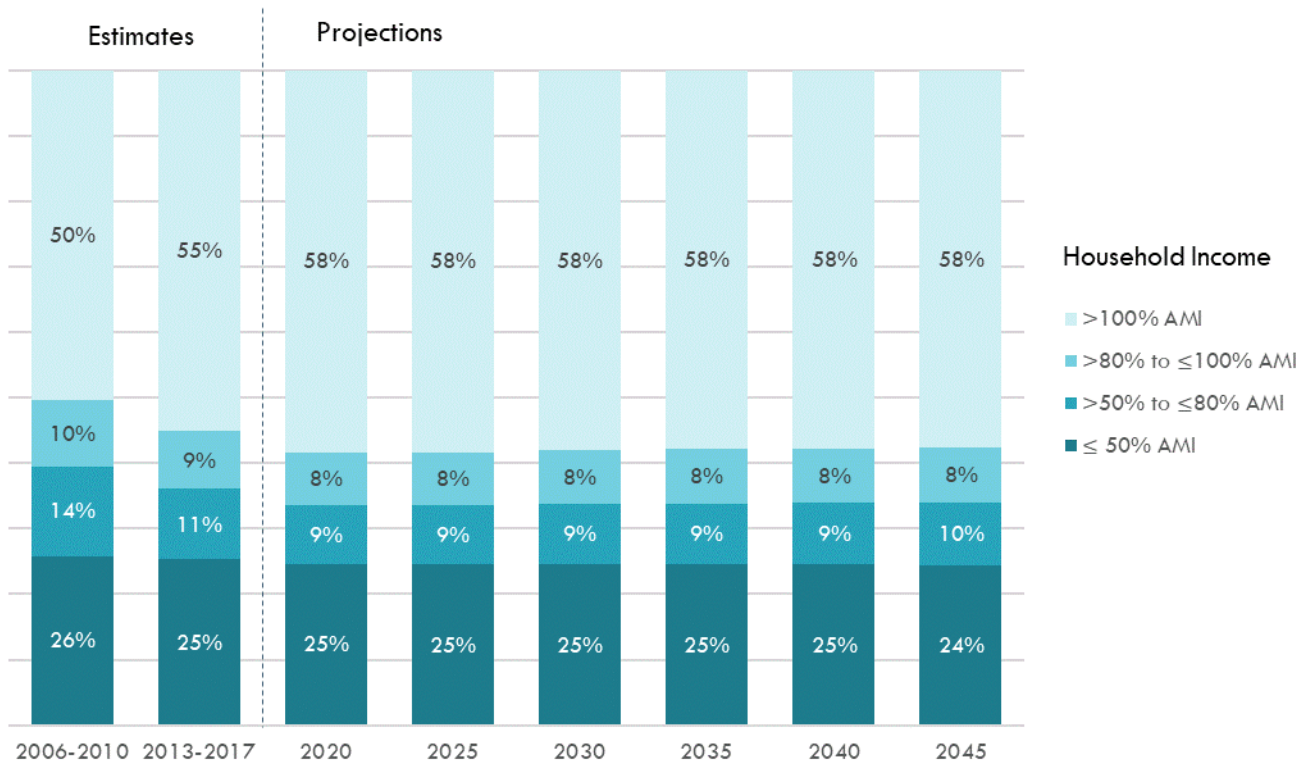
	2020	2025	2030	2035	2040	2045	Net Change 2020-2045
Total Households	349,857	379,205	408,552	437,899	467,246	496,593	146,736
≤ 50% AMI	86,188	93,238	100,288	107,338	114,387	121,437	35,249
>50% to ≤80% AMI	31,434	34,699	37,964	41,228	44,493	47,758	16,324
>80% to ≤100% AMI	28,275	31,031	33,787	36,543	39,299	42,055	13,780
>100% AMI	203,960	220,237	236,514	252,790	269,067	285,344	81,384

Source: BERK, 2020.

In comparison to Scenario 1, Scenario 2 shows significantly more net growth among households with incomes below 100% of AMI. Additionally, the proportion of households with incomes below 100% remains steady in this scenario, as shown in Exhibit 54. This is in strong contrast to Scenario 1, which shows

the city becoming increasing exclusive of households below 100% of AMI.

**Exhibit 54. Scenario 2: Percentage of Households by Income Level, Historic Estimates and Projections**



Sources: HUD CHAS (based on ACS 5-year Estimates, 2010-2010 and 2013-2017); ACS 1-year estimates, 2019; City of Seattle, 2020; BERK, 2020.

### Forecasted Job Growth by Wage Level

Another way to analyze future housing needs in Seattle is to consider job forecasts by wage level. BERK analyzed data from Emsi that forecasts Seattle employment by occupation. We then matched each occupation to median annual wage data from the Washington State Employment Security Department (ESD). Exhibit 55 shows forecasted jobs grouped into income levels relative to AMI, assuming a one-person household size. It shows that 63% of all jobs in Seattle pay between about \$25,000 and about \$67,000 annually, which is equivalent to about 30% to 80% of AMI for a one-person household. During the 10-year forecast period, Seattle is expected to see a net gain of over 35,000 jobs paying wages equivalent to 30-50% of AMI and another 35,000 jobs paying wages equivalent to 50-80% of AMI, assuming a 1-person household.

Of course, many Seattle workers live in larger households with more than one income-earner. Many others are the sole wage earner in a household with dependent members. Still others work multiple jobs. So, the direct translation of wages to household income levels has significant limitations. Nonetheless this simplified analysis shows the general volume of future need at different wage and income levels to help inform strategies to support workforce housing needs.

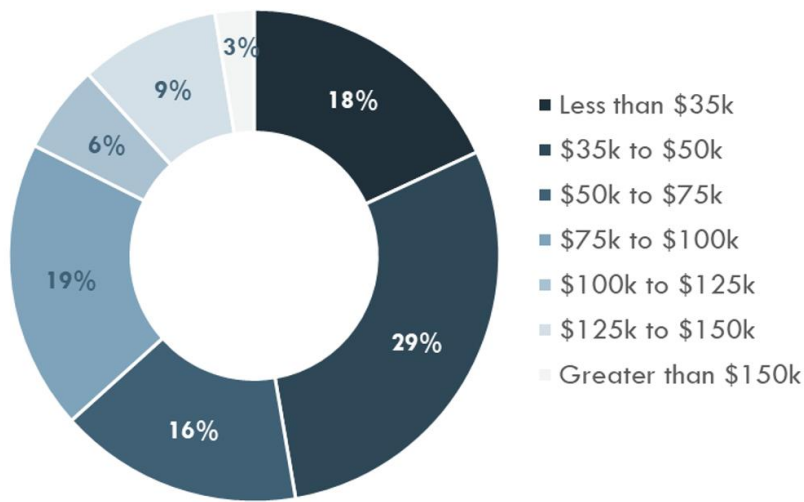
**Exhibit 55. Current and Forecasted Seattle Jobs by Wage Level**

Annual Wage		Income Level (% of AMI, assuming 1-person household)	Total Jobs			Average Annual Rate of Growth	
Lower Bound	Upper Bound		2020	2025	2030	2020-2025	2025-2030
\$ -	\$ 25,080	30% or below	544	554	558	0.4%	0.2%
\$ 25,080	\$ 41,800	>30% - 50%	250,031	271,169	285,602	1.7%	1.1%
\$ 41,800	\$ 66,880	>50% - 80%	189,727	205,001	215,130	1.6%	1.0%
\$ 66,880	\$ 79,329	>80% - 100%	93,111	101,132	106,514	1.7%	1.1%
\$ 79,329	\$ 95,195	>100% - 120%	72,260	78,652	82,808	1.8%	1.1%
\$ 95,195	\$ 118,993	>120% - 150%	22,442	24,546	25,919	1.9%	1.1%
\$ 118,993	\$ 158,658	>150% - 200%	62,801	71,327	77,016	2.7%	1.6%
\$ 158,658		Greater than 200%	7,360	7,933	8,310	1.6%	0.9%

Source: BERK, 2020, based on Emsi, 2020 & ESD, 2019.

Exhibit 56 focuses only on net new jobs forecasted in Seattle from 2020 to 2030. Nearly half of these net new jobs are expected to have a median annual wage of \$50,000 or less. This wage provides less than the income needed to afford a 0-bedroom apartment with median rent.

**Exhibit 56. Median Annual Wage of Forecasted Net New Jobs in Seattle, 2020–2030**



Source: BERK, 2020, based on Emsi, 2020 & ESD, 2019.

## HOUSING SUPPLY FORECAST

This section summarizes the results of BERK’s forecast of Seattle’s future housing supply by housing types and affordability levels under the two different growth scenarios described above. The purpose of these forecasts is to model how Seattle’s market rate housing supply is likely to grow and change over time so it can be compared to projected future housing needs. A detailed description of BERK’s approach is provided in Appendix C: Housing Supply Forecasting Methodology.

### Forecasting Assumptions

Below, we list key assumptions used in this analysis.

- This forecast begins in 2020 with the baseline housing inventory described in the Baseline Conditions section. This baseline inventory includes both market rate and income/rent-restricted units. Data about the number, location, and affordability levels of baseline income/rent-restricted housing was provided by City of Seattle Office of Housing.
- Affordability of rental units in the baseline inventory are based on analysis of rental market data from CoStar as described in Rental Housing Affordability on page 32. A more detailed description of application of this analysis to the entire rental housing supply is in Appendix C: Housing Supply Forecasting Methodology.
- Affordability of single family, townhomes, and condominiums in the baseline inventory was calculated from the perspective of a first-time homebuyer in a three-person household purchasing the home in 2020. See Appendix B: Homeownership Affordability Assumptions for details.<sup>26</sup>
- The total growth expected during the 25-year period (2020-2045) varies by scenario:
  - Scenario 1: 112,000 units
  - Scenario 2: 152,000 units
- All net new growth will be market rate housing. While the City intends to continue building and encouraging the production of new income/rent-restricted housing over the next 25 years, the purpose of this analysis is to understand how effectively the housing market is meeting the needs of Seattle-area households, and what needs are not being addressed by the market. Holding the number of income/rent-restricted units constant in these scenarios makes it easier to evaluate how the housing market is expected to perform.
- While the total amount of growth will vary by scenario, the relative rates of growth by market area and housing product types will remain consistent with recent trends.

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<sup>26</sup> Of course, this affordability calculation does not reflect affordability to a household that purchase the home many years ago, or to a household that is renting the unit. However, this forecast is representing the affordability of the housing supply over the next 25 years, and many homes will be sold during this period. By calculating the affordability level of homes using this method we have a consistent way of evaluating the affordability of the total supply of home types that can potentially support homeownership.

- Housing growth in each market area and zone is limited by buildable land capacity. This capacity data was created by City of Seattle OPCD and reflects zoning conditions as of March 2021. Through the King County Urban Growth Capacity Study, City staff have conducted analysis to inform the development of “market factor” assumptions which limit the amount of land area in each zone that is expected to be available for development based on owner preference or other limitations on the market.
- Estimated demolished units on redevelopable parcels is based on the ratio of existing units to new capacity for each zone and market area.
- Total ADU production across the city during the forecast period will be:
  - Scenario 1: 4,500
  - Scenario 2: 6,500
- Affordability of new units will reflect the affordability of recent development of same product type in the same market area. When affordability information for a product type is unavailable, use best alternative.
- Individual units will stay in the same affordability category relative to AMI during the 25-year forecast period.

This last assumption requires some explanation, given that in recent years average housing prices in Seattle have increased faster than AMI.<sup>27</sup> The same is true for rents in most areas of the city.<sup>28</sup> In fact, this assumption is consistent with these finding. BERK’s forecast adds new units to the supply at higher price points, reflecting the higher rents and housing prices typical of new development in Seattle. The forecast also removes older, less expensive units from the supply through demolition and redevelopment. So, over time, the market rate housing supply in BERK’s forecast becomes more expensive relative to AMI on average, even if existing and new units are assumed to stay in the same affordability category over time.

It is entirely possible that this assumption underestimates potential future housing cost escalation of existing units. In doing so we could potentially overestimate the amount of housing that is affordable at lower affordability levels. For that reason, the forecast of units by affordability could be optimistic if housing demand in Seattle remains high in years to come.

### Supply Forecast Summary: Scenario 1

Exhibit 57 shows net new housing unit growth by type and market area for the entire forecast period (2020-2045). The following donut chart, Exhibit 58, presents the same data as percentage shares of net new housing units by type for the entire city. This forecast accounts for not only new unit production but also units lost to demolition from redevelopment. As a result, single-family accounts for only 3% of net new units compared to the 8% of total housing production shown early in Exhibit 42. ADUs as a percentage of new unit production is also forecasted to be somewhat higher than historic trends (4% vs. 2%). This reflects recent regulatory changes and other city efforts to make ADUs easier and less

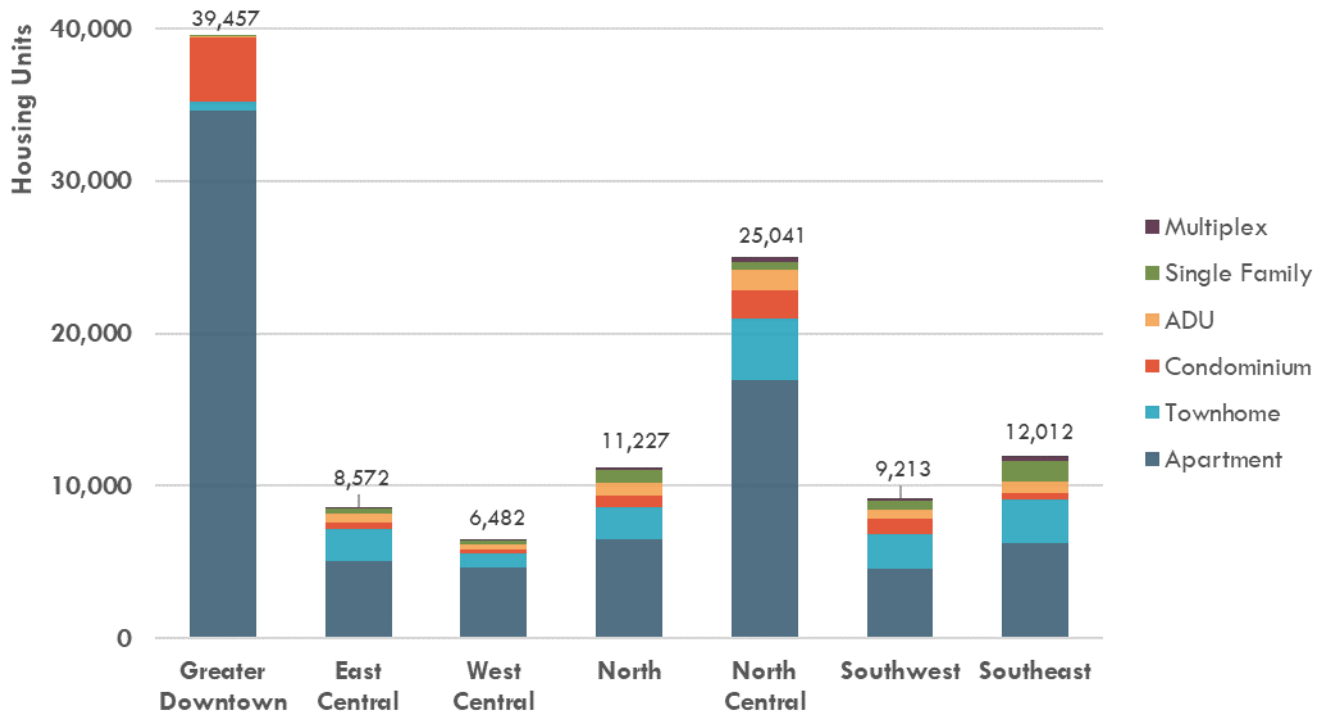
<sup>27</sup> See Exhibit 7 on page 12.

<sup>28</sup> Source: BERK analysis of Zillow Observed Rent Index (ZORI) by zip code, 2014-2020.

expensive to produce.<sup>29</sup> Finally, condominiums make up a bigger share of net new units, consistent with its share of development activity over the past 15 years.

In Scenario 1 both the Greater Downtown and West Central market areas run out of capacity to accommodate growth. This pushes a greater share of growth to other market areas compared to historical trends. North Central runs out of capacity for detached single family development on parcels with capacity for net new growth, even after accounting for the expected share of that development occurring as one to one replacement of older units in single family zones.

**Exhibit 57. Scenario 1: Forecasted Net New Housing Units by Type and Market Area, 2020-2045**

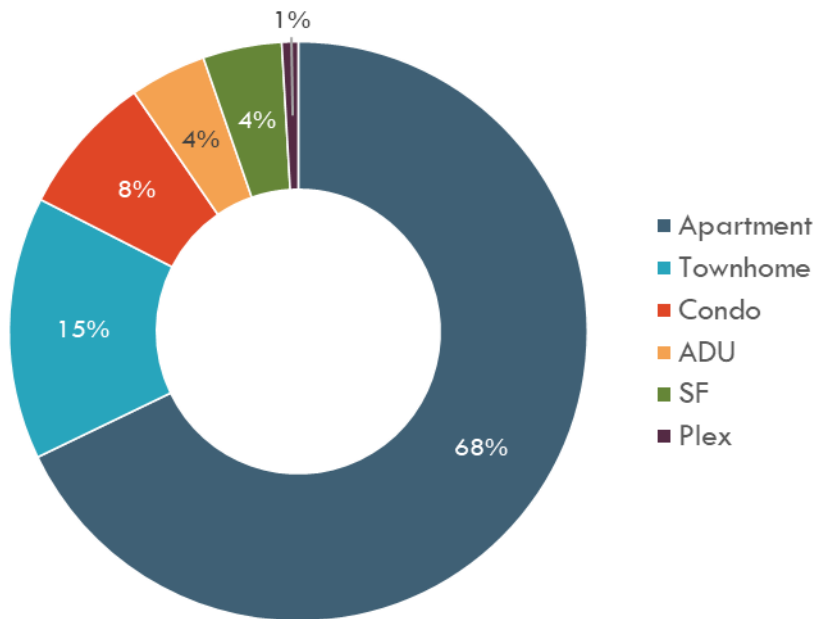


Source: BERK, 2021.

<sup>29</sup> See ADUniverse: <https://aduniverse-seattlecitygis.hub.arcgis.com/>



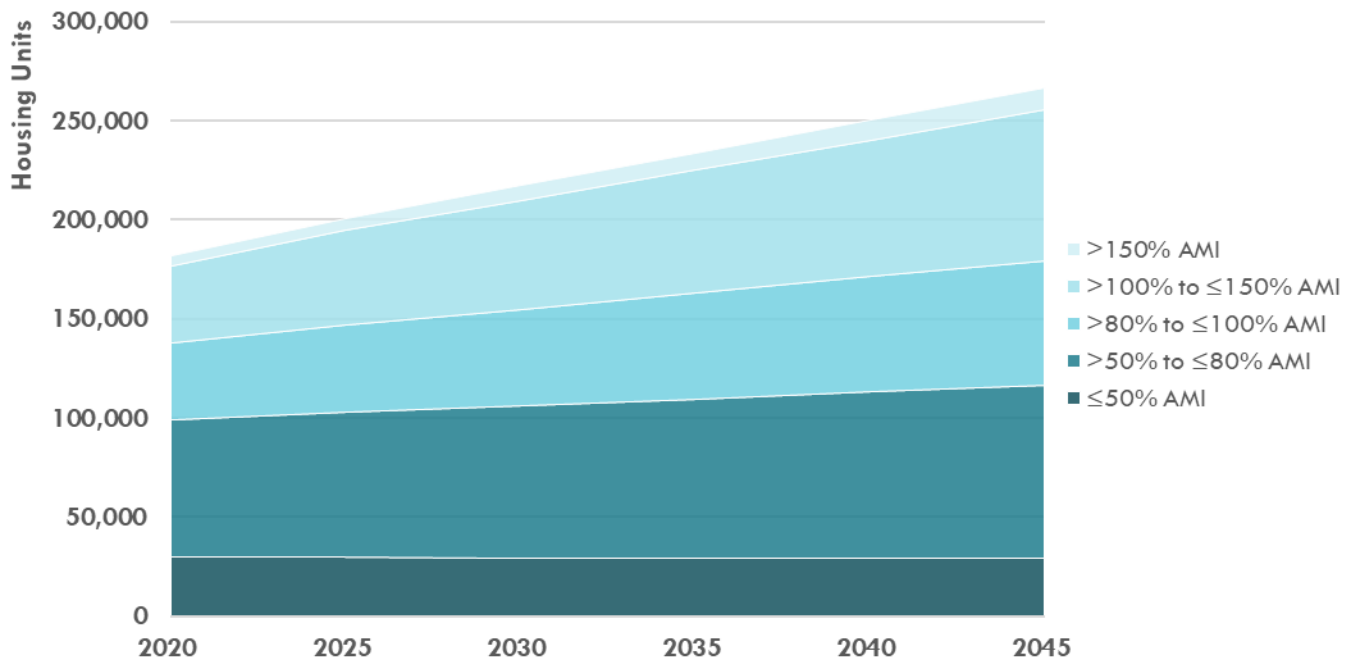
**Exhibit 58. Scenario 1: Forecasted Shares of Net New Units by Housing Type, 2020-2045**



Source: BERK, 2021.

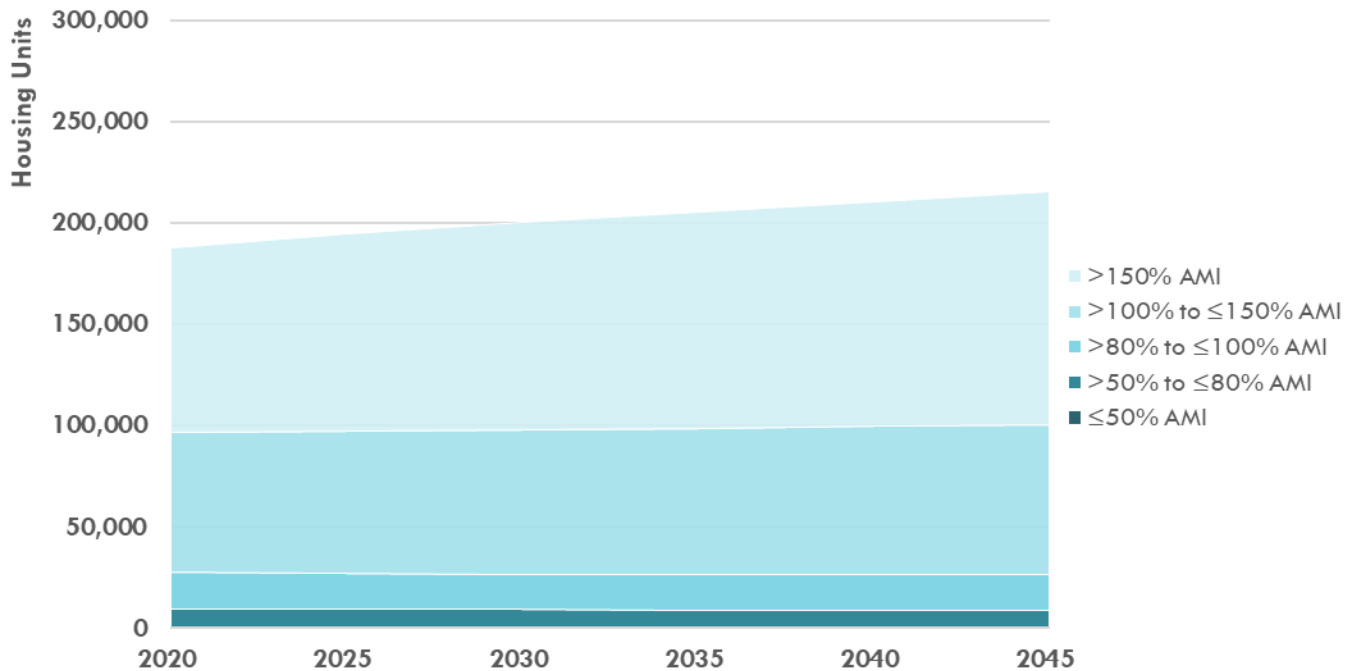
Each new unit added to the supply in this forecast is assigned an affordability category as described in Appendix C: Housing Supply Forecasting Methodology. Exhibits 59 and 60 show how the housing supply is forecasted to grow over time, with breakdowns by affordability level. The first chart shows housing products that are typically renter-occupied. The second chart shows housing products that can support homeownership, although some may be renter-occupied. The affordability calculations for units in Exhibit 60 assume homeownership for a first-time buyer (see Appendix B: Homeownership Affordability Assumptions for details).

**Exhibit 59. Scenario 1: Apartment, ADU, and Multiplex Units by Affordability Level**



Source: BERK, 2020.

**Exhibit 60. Scenario 1: Single-Family, Townhome, and Condominium Units by Affordability Level**



Source: BERK, 2020.

### Scenario 1 Rental Market Housing Supply Findings

- The forecast indicates the supply of market rate apartments, ADUs, and multiplex will grow at a significantly faster rate than housing products that support homeownership. This growth will almost entirely be in units affordable at 80% of AMI or higher. The supply of units affordable at 100 to 150% of AMI will grow at the fastest rate.
- The city will lose market rate units affordable at 50% of AMI, mostly to due to demolition. If rents continue to increase as quickly as they have in recent years, the city could see bigger losses of units affordable at this range.
- Most of the growth in the apartment supply will be among smaller units: 0-bedroom and one-bedroom. There will be very limited growth in rental units with three or more bedrooms. The supply of larger rental housing is primarily in the form of townhomes and single-family units available on the rental market. Increased demand for ownership units has potential to reduce this supply over time.

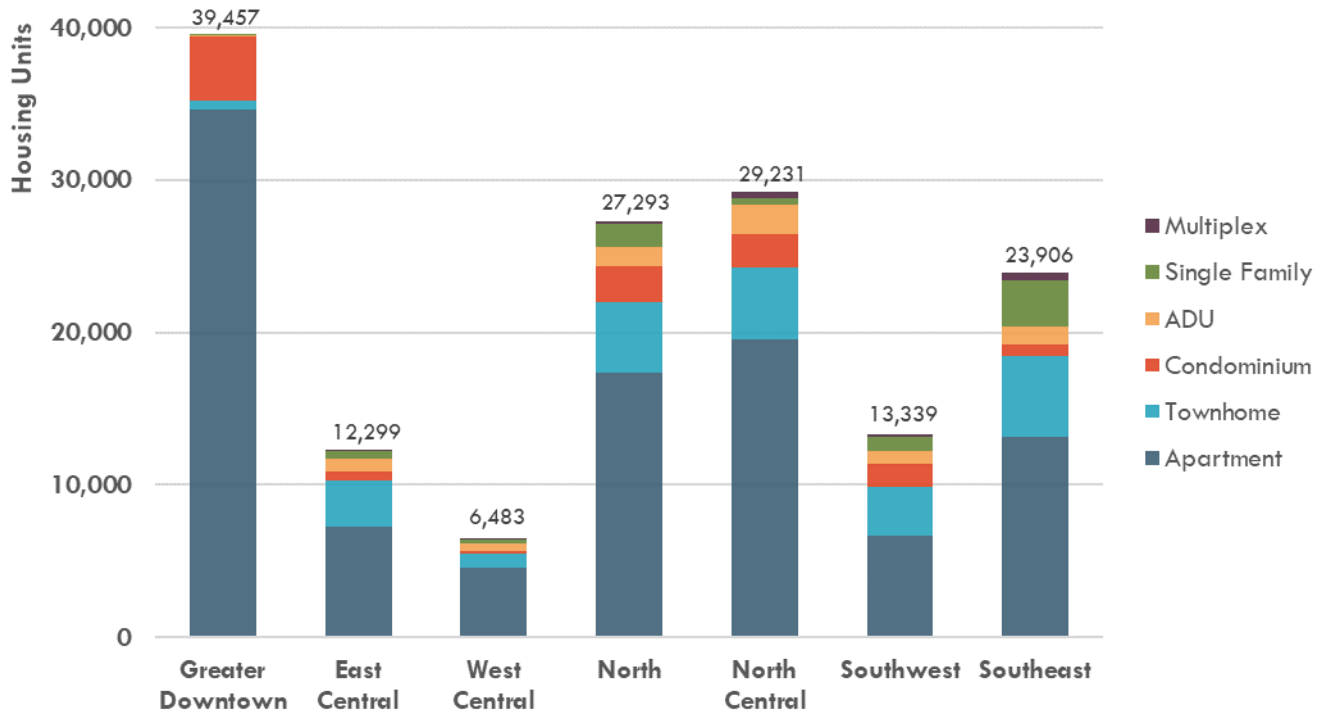
### Scenario 1 Ownership Market Housing Supply Findings

- The supply of units that can potentially support homeownership will grow slowly over time. If trends continue, approximately 20% of this supply will be available as rentals.
- Nearly all the net new supply will only be affordable to households with income above 150% of AMI.
- There will be a net loss of units affordable at 100% of AMI or less. Those units that remain would almost entirely be condominiums and townhomes in less expensive market areas. The very limited supply of single-family homes at this affordability level will diminish due to demolition and redevelopment.

### Supply Forecast Summary: Scenario 2

Exhibit 61 shows net new housing unit growth by type and market area for the entire forecast period (2020-2045). The amount of growth in Greater Downtown and West Central are the same as Scenario 1, as both scenarios show these market areas running out of capacity for new housing growth. In Scenario 2, North Central also runs out of capacity for growth. The North and Southeast market areas are expected to have the most drastic increase in development compared to Scenario 1. The North area is expected to run out of capacity for detached single family, and Southwest runs out of capacity for townhome development.

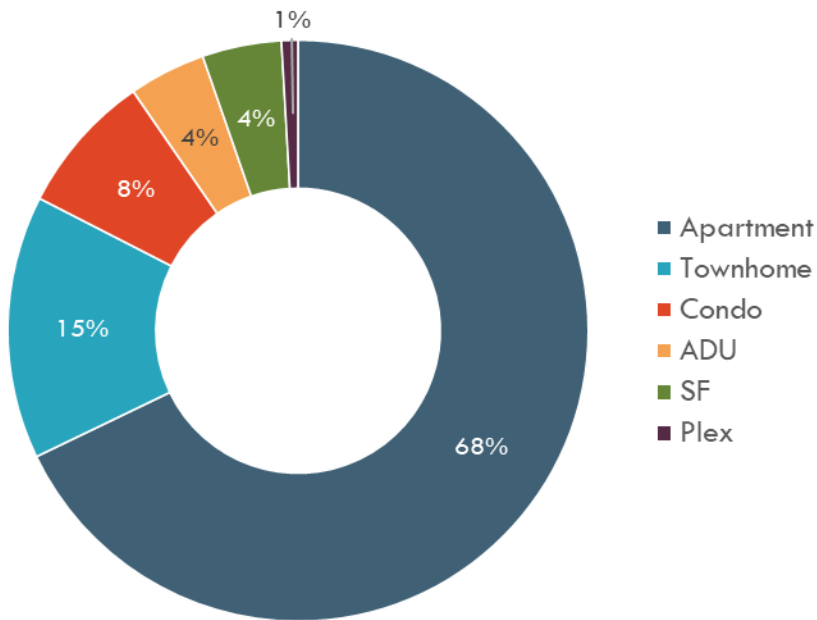
**Exhibit 61. Scenario 2: Forecasted Net New Housing Units by Type and Market Area, 2020-2045**



Source: BERK, 2021.

In this scenario townhome development is a slightly larger share of total growth than Scenario 1, while apartments are a slight smaller share, as shown in Exhibit 62. Other housing types are consistent in their shares of total forecasted housing growth.

**Exhibit 62. Scenario 2: Forecasted Shares of Net New Units by Housing Type, 2020-2045**

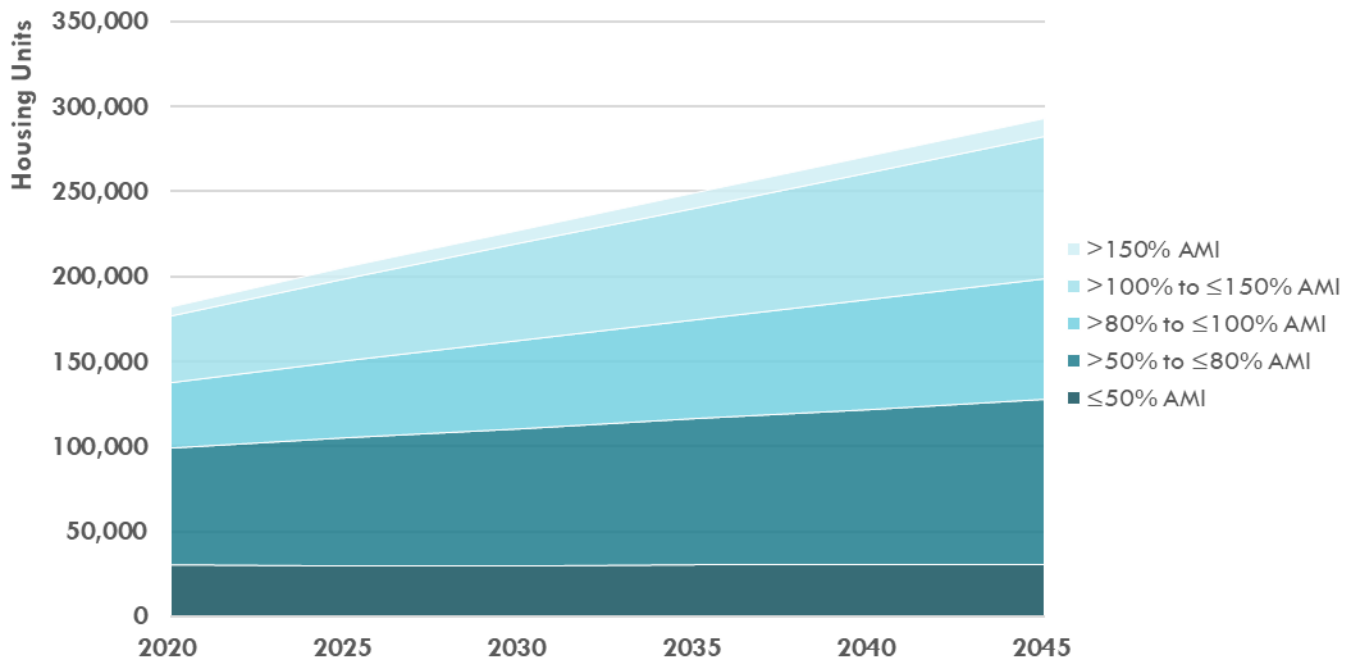


Source: BERK, 2021.

**Exhibit 63. Scenario 2: Apartment, ADU, and Multiplex Units by Affordability Level**

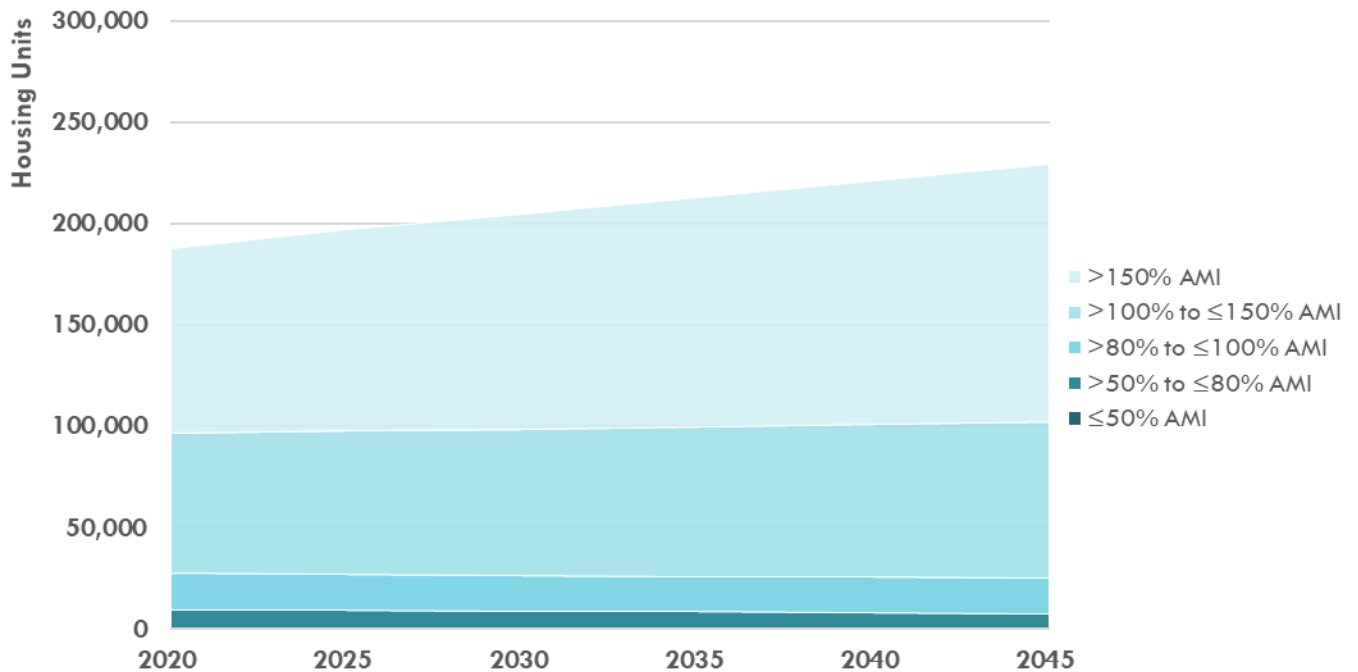
Exhibit 63 shows how the housing supply is forecasted to grow over time in Scenario 2, with breakdowns by affordability level. The first chart shows housing products that are typically renter-occupied. The second chart shows housing products that can support homeownership, although some may be renter-occupied.

**Exhibit 63. Scenario 2: Apartment, ADU, and Multiplex Units by Affordability Level**



Source: BERK, 2021.

**Exhibit 64. Scenario 2: Single-Family, Townhome, and Condominium Units by Affordability Level**



Source: BERK, 2021.

### Scenario 2 Rental Market Housing Supply Findings

- As with Scenario 1, the supply of market rate apartments, ADUs, and multiplex will grow at a significantly faster rate than housing products that can support homeownership.
- In Scenario 2, a greater share of net new units is expected to be affordable at the 50 to 80% of AMI level. This is due to the greater share of growth occurring in less expensive market areas.
- As with Scenario 1, the city will lose market rate units affordable at 50% of AMI, mostly to due to demolition. If rents continue to increase as quickly as they have in recent years, the city could see bigger losses of units affordable at this range.

### Scenario 2 Ownership Market Housing Supply Findings

- The supply of units that can potentially support homeownership will grow more rapidly than Scenario 1. And a slightly greater share of net new housing will be in housing types that can support home ownership. Most notably, Scenario 2 has a greater share of housing in the townhome format. If trends continue approximately 20% of this supply will be available as rentals.
- As with Scenario 1, nearly all the net new supply will only be affordable to households with income above 150% of AMI.
- There will be a net loss of units affordable at 100% of AMI or less. Those units that remain would almost entirely be condominiums and townhomes in less expensive market areas. The very limited supply of single-family homes at this affordability level will diminish due to demolition and redevelopment.

## GAP ANALYSIS FORECAST

This section compares the two scenarios of projected housing needs to the housing supply forecast to identify housing shortages by housing type and affordability level.

### Scenario 1 Gaps

Exhibit 65 compares the alignment between forecasted housing supply affordability level and the Scenario 1 projected households by income level. While Scenario 1 projects lower overall housing need for accommodating growth relative to Scenario 2, and particularly less need among households with incomes below 100% AMI, there are still gaps between need and supply out to 2045.

This comparison includes all units of all housing types as well as all households, both owner and renter. Positive values in the table indicate the total supply of units at that affordability level is higher than the total number of households at that income level. Negative values (in red) indicate that the supply of units is lower than the number of households. Exhibit 66 visualizes this comparison for the year 2045. Exhibit 67 shows the cumulative number of units within all affordability categories below each income threshold compared to the cumulative number of households with incomes below those same thresholds. These calculations do not factor in down renting in terms of availability of units. Nor do they account for the fact that not all units in the cumulative calculations are affordable to all households. They only provide an estimate of the cumulative supply of units affordable at the top end of the income group. Down renting

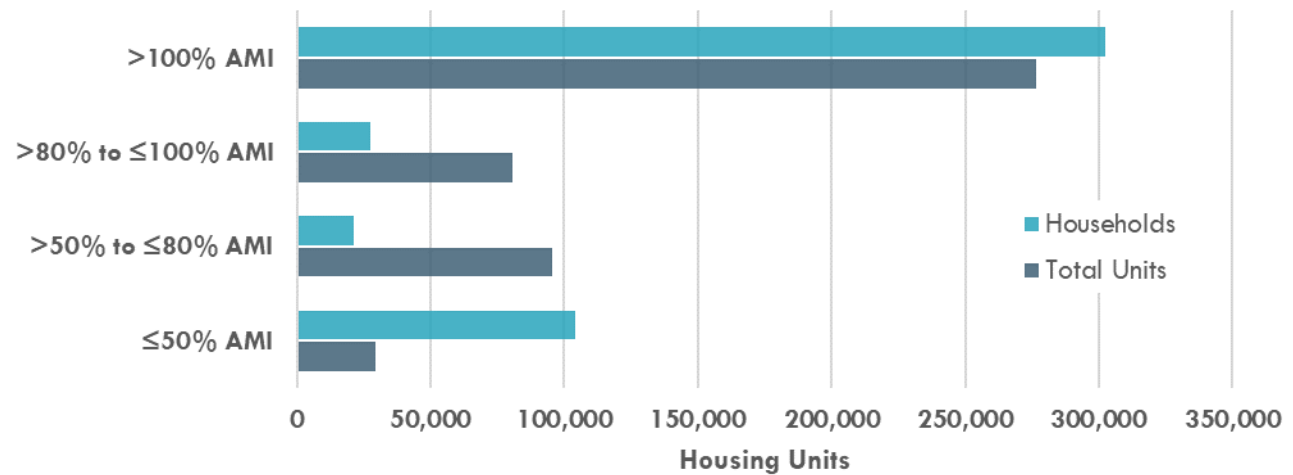
by higher income households is expected to increase as a challenge impacting the availability of units affordable to households at lower income level. This is due to trends showing that higher income households will increase significantly as a share of total city residents.

**Exhibit 65. Scenario 1: Alignment of Supply Forecast with Trend Scenario Projections (Units – Households)**

	2020	2025	2030	2035	2040	2045
>100% AMI	151	-2,288	-8,143	-14,081	-20,076	-26,068
>80% to ≤100% AMI	28,598	33,957	38,765	43,628	48,546	53,465
>50% to ≤80% AMI	47,695	53,374	58,627	63,869	69,109	74,347
≤50% AMI	-54,933	-59,168	-63,076	-66,973	-70,871	-74,769

Source: BERK, 2021.

**Exhibit 66. Scenario 1: Households by Income Level Compared to Units by Affordability Level, 2045**



Source: BERK, 2021.



**Exhibit 67. Scenario 1: Cumulative Surplus or Shortage of Affordable Units Compared to Household Projections (Units - Households)**

Affordability Level	Household Income Range	2020	2025	2030	2035	2040	2045
100% of AMI	0-100% of AMI	21,360	28,164	34,317	40,523	46,784	53,043
80% of AMI	0-80% of AMI	-7,238	-5,794	-4,448	-3,104	-1,762	-422
50% of AMI	0-50% of AMI	-54,933	-59,168	-63,076	-66,973	-70,871	-74,769

Source: BERK, 2021.

*Findings: Above 100% of AMI*

This is the largest and fastest growing household income group in Scenario 1. Exhibit 65 shows that the housing supply is not expected to add units at the highest price points as quickly as Seattle gains higher income households. Since many of these units are products that can support homeownership (single family, townhomes, or condominiums), the intense competition that has driven up housing prices in recent years is expected to continue. Given that the supply forecast shows little if any net new growth in ownership housing products affordable at levels below 150% of AMI, it is likely that there will be many households with incomes 100-150% of AMI that cannot find or afford appropriate ownership housing. While not all these households seek homeownership, many households that would otherwise seek ownership could remain in the rental housing market. This will perpetuate, and potentially exacerbate, the issue of down renting that reduces the effective supply of rental units for households in lower income levels.

The most important gap for this income level is the shortage of ownership-style units. Increasing the supply of townhomes, condos, and small lot single-family homes would help reduce competition for ownership products, reduce the rate of housing cost escalation, and reduce down renting.

*Findings: 80% - 100% of AMI*

BERK’s forecast shows a large and growing share of the rental housing supply is affordable to households at 80-100% of AMI. However, the Scenario 1 indicates very little net change in households at this income level. As a result, many of these units will be occupied by higher or lower income households.

As shown in the previous section, the supply of ownership units affordable at this income level is very limited and forecasted to slowly decline over time. Therefore, households at this income level seeking market rate homeownership will likely need to look outside of Seattle. Actions to increase the supply of moderate-cost townhomes or condominiums would help provide more ownership opportunities for these households, and free up the rental supply for other residents.

*Findings: 50% - 80% of AMI*

Exhibit 67 shows a cumulative shortage of units affordable at 80% of AMI. This shortage is expected to

shrink over time, until 2045 when it is less than 500 units. The decrease in cumulative shortage has two causes. First, the market rate housing supply is forecasted to add rental units affordable at 50-80% of AMI. Secondly, Scenario 1 shows the number of households with incomes between 50-80% of AMI declining.

While the shrinking of cumulative shortage is a good sign, this comparison does not take into account down renting by higher income households. As noted in the Baseline Gap Analysis, down renting is currently causing significant effective shortages of units both affordable and available. As noted already, the issue of down renting is expected to continue impacting availability of units affordable at this income level.

*Findings: Below 50% of AMI*

For income levels below 50% of AMI, the market is not providing new units at this affordability level, and the few it does provide will be lost over time. Therefore, accommodating these needs will require increasing the supply of income-/rent-restricted units.

**Scenario 2 Gaps**

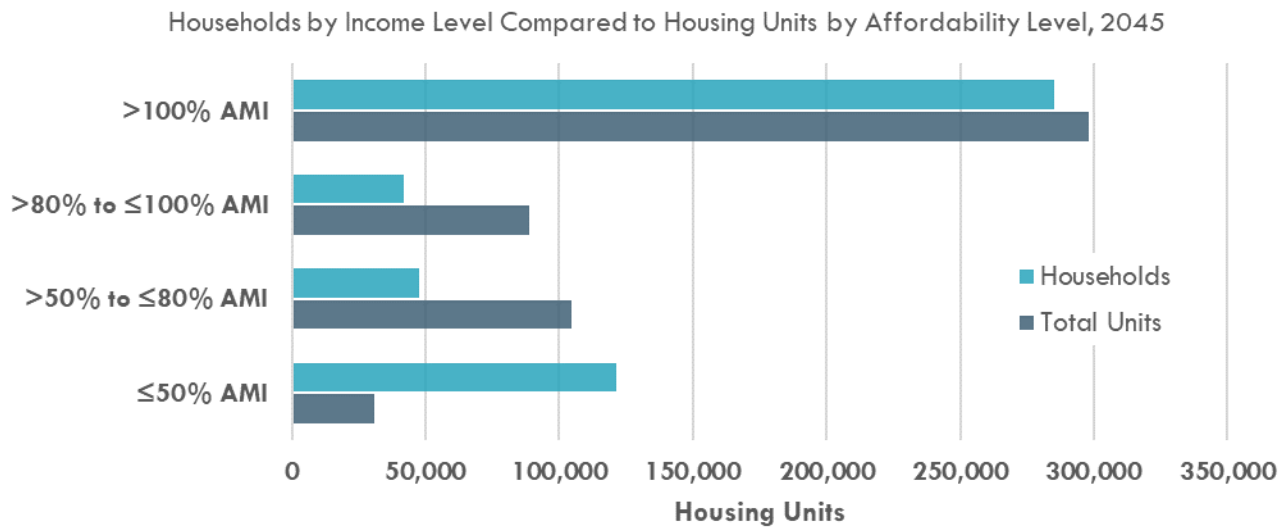
Exhibit 68 compares the alignment between forecasted housing supply affordability level and the Scenario 2 projected households by income level. This comparison includes all units of all housing types as well as all households, both owner and renter. Positive values in the table indicate the total supply of units at that affordability level is higher than the total number of households at that income level. Negative values (in red) indicate that the supply of units is lower than the number of households. Exhibit 69 visualizes this comparison for the year 2045.

**Exhibit 68. Scenario 2: Alignment of Supply Forecast with Housing Needs (Units – Households)**

	2020	2025	2030	2035	2040	2045
>100% AMI	809	4,859	7,054	9,149	11,113	12,955
>80% to ≤100% AMI	28,029	31,959	35,566	39,266	43,008	46,758
>50% to ≤80% AMI	46,671	48,764	50,681	52,585	54,562	56,626
≤50% AMI	-55,598	-62,890	-69,900	-76,902	-83,887	-90,860

Source: BERK, 2021.

**Exhibit 69. Scenario 2: Households by Income Level Compared to Units by Affordability Level, 2045**



Source: BERK, 2021.

Exhibit 70 shows the cumulative number of units within all affordability categories below each income threshold compared to the cumulative number of households with incomes below those same thresholds. As discussed above, these calculations do not factor in down renting in terms of availability of units. Nor do they account for the fact that not all units in the cumulative calculations are affordable to all households. They only provide an estimate of the cumulative supply of units affordable at the top end of the income group.

**Exhibit 70. Scenario 2: Cumulative Surplus or Shortage of Affordable Units Compared to Countywide Need Scenario Household Projections (Units – Households)**

Affordability Level	Household Income Range	2020	2025	2030	2035	2040	2045
100% of AMI	0-100% of AMI	19,102	17,833	16,347	14,949	13,683	12,524
80% of AMI	0-80% of AMI	-8,927	-14,126	-19,219	-24,317	-29,325	-34,234
50% of AMI	0-50% of AMI	-55,598	-62,890	-69,900	-76,902	-83,887	-90,860

Source: BERK, 2021.

*Findings: Above 100% of AMI*

Like Scenario 1, this is the largest and fastest growing household income group. However, in Scenario 2 this group is a smaller share of overall growth. As a result, this scenario shows there will be more units affordable above 100% of AMI than there will be households at that income level. This has some potential to reduce the number of higher income households competing for units at lower affordability

levels when compared to Scenario 1, which could reduce pressure from down renting somewhat.

The most important gap for this income level is the shortage of ownership-style units. Increasing the supply of townhomes, condos, and small lot single-family homes would help reduce competition for ownership products, reduce the rate of housing cost escalation, and reduce down renting.

### *Findings: 80% - 100% of AMI*

BERK's forecast shows a large and growing share of the rental housing supply is affordable to households at 80-100% of AMI. However, the Scenario 2 indicates very limited net change in households at this income level. As a result, many of these units will be occupied by higher or lower income households.

As shown in the previous section, the supply of ownership units affordable at this income level is small and not increasing. Therefore, households at this income level seeking homeownership will likely need to look outside of Seattle. Actions to increase the supply of moderate-cost townhomes or condominiums would help provide more ownership opportunities for these households, and free up the rental supply for other residents.

### *Findings: 50% - 80% of AMI*

Compared to Scenario 1 and historical trends, Scenario 2 assumes a greater share of household growth in Seattle will be among those with incomes at 80% of AMI or below. As a result, Exhibit 70 shows a deficit of cumulative units affordable at 80% of AMI growing quickly over time, until 2045 when it is more than 34,000 units. This projected outcome is despite the greater share of net new rental supply expected to be affordable at this level in Scenario 2. Nonetheless, the increased housing production in Scenario 2 should help to reduce housing shortages compared to regional demand, competition for units, and down renting by higher income households.

Actions by the City to encourage more market rate rental housing production in formats and market areas that can be affordable at this income level would help to reduce the projected deficit and provide more opportunities for affordability.

### *Findings: Below 50% of AMI*

As with Scenario 1, this analysis shows that the housing market will not address the needs of households with incomes at 50% of AMI or below. Therefore, accommodating these needs will require increasing the supply of income-/rent-restricted units.

# Appendices

## APPENDIX A: DATA SOURCES

### *American Community Survey (ACS)*

This is an ongoing nationwide survey conducted by the U.S. Census Bureau. It is designed to provide communities with current data about how they are changing. The ACS collects information such as age, race, income, household size, housing tenure, home value, and other important data from U.S. households. BERK used ACS data to assess baseline housing needs. We also used ACS data to summarize some topics in the baseline housing supply that are not covered by other sources, such as King County Assessor or CoStar. An example is estimating occupancy of units by tenure (owner or renter) by housing type or units in structure.

### *CHAS (Comprehensive Housing Affordability Strategy)*

CHAS data summarize housing problems and housing needs for households by income level relative to Area Median Income (AMI). AMI refers to official median family income calculations published annually by the U.S. Department of Housing and Urban Development (HUD) for counties and metropolitan areas across the U.S. In 2020, AMI for the Seattle-Bellevue, WA HUD Metro Fair Market Rent Area (including King and Snohomish Counties) was \$113,300. HUD CHAS data groups households by income level with adjustments to account for differences in household size to reflect the fact that housing expenses increase with the size of one's household.

BERK used CHAS data in this study to analyze:

- Households by income level (including trends)
- Cost-burdened households
- Affordable and available housing (including the phenomena of down renting)

To develop CHAS data, HUD receives custom tabulations of ACS. The most recent CHAS data available reflects surveys collected between 2013 and 2017. Therefore, findings based on CHAS do not necessarily reflect the most recent changes in housing market conditions.

### *CoStar*

CoStar is BERK's primary data source for current effective market rents in individual buildings across Seattle. CoStar Realty Information, Inc. is a real estate data and analytics service provider primarily involved with real estate markets in North American and Europe. The commercial property dataset compiled by CoStar provides building-level data on existing, proposed, and demolished buildings available for lease or rent. Primary information is collected from property owners, brokers, and managers through multiple sources, including through other marketing services coordinated by the CoStar Group. This is supplemented by public information available about properties for which primary data is not available.

For multifamily residential and mixed-use properties, this dataset provides information on rental buildings

of all sizes, including representation of smaller buildings of five units or more. This database provides the number of existing multifamily units, including unit breakdown by size (up to four bedrooms); average rents per unit, square foot, and bedroom; total leasable area; and year of building construction.

As the information in this database is compiled from numerous sources, including self-reported information, the completeness of this information varies across properties. For example, some buildings may report total number of residential units or average rents per unit, but not categorize these statistics by size (0-bedroom, one-bedroom, etc.). In other cases, CoStar has no information about a building beyond what is available from the King County Assessor. For properties with limited data availability, CoStar estimates rents based on a proprietary model that considered factors such as rents in the surrounding area, age of structure, size of unit, and indicators of building condition. Typically, larger properties owned by investment companies will have more accurate information available that is directly collected by CoStar, while smaller, older properties owned by local investors will be more likely to have less accurate or imputed data that may be represented by publicly available or third-party data.

BERK uses CoStar data to summarize housing costs in the market rental housing supply. To do this we filter CoStar data to exclude all properties with “affordable” units (the term used to indicate income- and/or rent-restricted unit) as well as those with incomplete information, such as average rents by unit size. However, it is not possible to filter out properties with imputed data directly. Furthermore, the imputed properties are more likely to be older, smaller buildings that are more affordable than properties with actual reported market rents. Therefore, they represent an important segment of the housing market to include in the analysis.

Previous studies of rental market trends in Seattle often relied on data from Dupre+Scott, which reported contract rents for properties that were surveyed. In late 2017 Dupre+Scott ceased operations. Due to differences between the two datasets, the findings in this report are not directly comparable to previous studies. Most notably, CoStar data imputes rents for buildings that may not have been surveyed by Dupre+Scott. Many of these buildings are older and at the more affordable end of the rental market. For that reason, analysis of CoStar data indicates a greater share of market-rate rental units are available at lower costs.

CoStar’s imputed rents in buildings with no direct survey data available may overestimate the supply of lower cost rental units. Unfortunately, there is no way to determine how widespread this problem is. Additional discussion of CoStar and its utility for monitoring the affordability of the housing supply is available in Appendix D: Recommendations For Using CoStar Data In Ongoing Monitoring.

### *King County Assessor*

The City of Seattle provided BERK with a special tabulation of King County Assessor data that includes information about the city’s current housing inventory. Housing characteristics documented in this tabulation include property type (single family, multiplex, townhome, condominium, apartment, etc.), number of units in multifamily buildings, age and size of residential buildings, and assessed property values. This is the primary source of data for inventorying the baseline supply of housing in Seattle.

One limitation of this dataset is that it does not track accessory dwelling units (ADUs), although some might be reflected in the unit counts on single family parcel. Therefore, we must rely on permit data for estimating the supply of those units, with some uncertainty regarding the amount of overlap with units

counted in the assessor data.

### *Seattle Land Capacity Analysis*

A land capacity analysis identifies parcel that can reasonably be expected to have potential for future development. These may be vacant parcels zoned to allow for commercial or residential development. Or they may be parcels with existing structures that have potential for redevelopment. City of Seattle OPCD staff are preparing a land capacity analysis for the 2020 King County Urban Growth Capacity Study. BERK was provided with a summary output of aggregate buildable land capacity by zone and market area. This summary included total housing unit capacity as well as the total number of existing units on redevelopable parcels.

BERK used this data as an input for the Housing Supply Forecast. See Appendix C: Housing Supply Forecasting Methodology for additional details.

### *Seattle Permit Data*

BERK used building permit data from the City of Seattle [Open Data Portal](#) to analyze residential development trends as well as the pipeline of residential projects not yet completed. See Appendix C: Housing Supply Forecasting Methodology for a more detailed discussion of the permit pipeline analysis.

### *Seattle Income/Rent-Restricted Housing*

City of Seattle Office of Housing staff provided BERK with an inventory of income/rent-restricted housing, estimate of the number of units by affordability level. The inventory included units from several different sources/programs:

- City Funded
- MFTE: Units produced through the Multifamily Tax Exemption program
- MHA: Units provided in buildings subject to Mandatory Housing Affordability regulations
- IZ: Units provided in buildings that took advantage of inclusionary zoning incentives

BERK used this inventory in the baseline inventory of units by affordability level that is used in the housing supply forecast. See Appendix C: Housing Supply Forecasting Methodology for details.

## APPENDIX B: HOMEOWNERSHIP AFFORDABILITY ASSUMPTIONS

This appendix outlines the methodology and assumptions used to calculate homeownership affordability for a hypothetical three-person household that is a first-time home buyer. Appendix C: Housing Supply Forecasting Methodology describes how this method is applied to all single family, townhome, and condominium units in Seattle to determine the baseline supply of housing that can support new opportunities for homeownership by affordability level and market area.

This methodology is NOT used to estimate the affordability of homes to their current homeowners, many of whom may have purchased their homes many years ago when prices were lower.

This methodology also does not account for the many barriers to homeownership beyond household income, such as knowledge about building and repairing credit, application processes and procedures, and banking. BIPOC (Black, Indigenous, People of Color) households disproportionately lack access to this knowledge base, particularly those households who do not come from a tradition of homeownership due to immigration status or systemic inequities.

### *Relationship Between Assessed value and Market Value*

The value of homes in King County assessor data is typically somewhat lower than the market value. The Washington State Department of Revenue (DOR) calculates real property tax ratios by dividing the total assessed value of real property in each county by the total true and fair value, which is an estimate based on actual sale prices of real property in market transactions. Thus, the real property tax ratio represents a general estimate of assessed value as a percentage of sale price. BERK calculated the 5-year average of real property tax ratios for King County, which is 91.4% for 2015-2019. This ratio is used to convert assessed value to market value to determine the assumed home sales price.<sup>30</sup>

- Source: DOR, 2015-2019. <https://dor.wa.gov/content/property-tax-ratios-county>

### *Down Payment*

BERK's estimates of affordability of individual units in the current housing supply assume the scenario of a first-time homebuyers with a 3.5% down payment, which is the minimum required for an FHA loan. Of course, some households will have more money available for a down payment, which could change the total amount of income needed to afford the unit.

- Source: HUD, 2020. <https://www.hud.gov/buying/loans>

### *Interest Rate*

Affordability calculations assume an interest rate of 3.0%, within the range of typical rates in 2020, according the Federal Home Loan Mortgage Corporation (Freddie Mac). Interest rates are at historical lows in 2020, so this rate does not represent the interest rate in a typical year. If interest rates rise in the future, the income needed to purchase a home would increase compared to today.

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<sup>30</sup> When data for the home sales price is available (such as in Exhibit 38 of the Baseline Conditions section) we use this ratio to convert sales price to assessed value for the purpose of estimating property taxes.



- Source: Freddie Mac, 2020. <http://www.freddiemac.com/pmms/>

### *Property Taxes*

Estimated property taxes are calculated by dividing the assessed value by \$1,000 (property tax levy rates are expressed as a dollar amount per \$1,000 of assessed value) and multiplying the result by the 2020 property tax levy rate for the City of Seattle (\$9.22942). There are technically two property tax levy rates in the City of Seattle – tax code areas 0010, 0011, 0014, and 0016 are all within the Seattle Public Schools school district and have a levy rate of \$9.22942. Tax code areas 0030 and 0032 are located within the Highline Public Schools school district and have a levy rate of \$11.82328. However, just two residential parcels are located within tax code area 0032 and there are no residential parcels within area 0030, so we use the levy rate of \$9.22942 in this calculation.

- Source: King County Assessor's Office, 2020. [https://www.kingcounty.gov/depts/assessor/Reports/~/\\_media/depts/assessor/documents/PropertyTaxes/RateBook20.ashx](https://www.kingcounty.gov/depts/assessor/Reports/~/_media/depts/assessor/documents/PropertyTaxes/RateBook20.ashx)

### *Property Tax Fees*

Property tax fees include fees that are charged as part of a homeowner's property tax bill, but which are not a property tax based on the assessed value of the home. Property owners in Seattle pay three property tax fees: 1) a drainage fee to the City of Seattle, 2) a noxious weed assessment to King County, and 3) a conservation fee to the King Conservation District. The City of Seattle drainage fee varies based on the parcel's square footage. The drainage fee of \$558.27 used in this calculation is the 2020 fee for a 5,000 square foot residential parcel. The 2020 King County noxious weed assessment is a fee of \$5.32 per residential parcel, plus an additional \$0.38 per acre. The total noxious weed assessment of \$5.36 is the fee for a 5,000 square foot residential parcel. The 2020 King Conservation District fee is a flat fee of \$9.45 per residential parcel.

- Sources: Seattle Public Utilities, 2020. <https://www.seattle.gov/utilities/your-services/accounts-and-payments/rates/drainage>. King County Department of Natural Resources, 2020. <https://www.kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/faq.aspx>. King Conservation District, 2020. <https://kingcd.org/wp-content/uploads/2018/04/KCD-Resolution-14-004.pdf>.

### *Homeowner's Insurance*

This calculation uses an estimated homeowner's insurance rate of \$2.00 per \$1,000 of home value.

- Source: City of Seattle Office of Housing, 2020.

### *Mortgage Insurance*

- This calculation uses an estimated mortgage insurance rate of 1.0% of the value of the home mortgage, which is typically required for mortgages with down payments less than 20% of the sales price. Source: City of Seattle Office of Housing, 2020.

### *Affordability by Income Level*

Calculations to determine affordability by income level relative to AMI assume a 3-person household. This assumption is used for all unit types, including condominiums. Selecting a smaller assumed household size for condominiums would reduce the income thresholds and therefore push more units into higher affordability categories.

### *Costs Not Accounted For*

Housing cost analysis does not account for utility, upkeep, and homeowner's association/condo association fees.

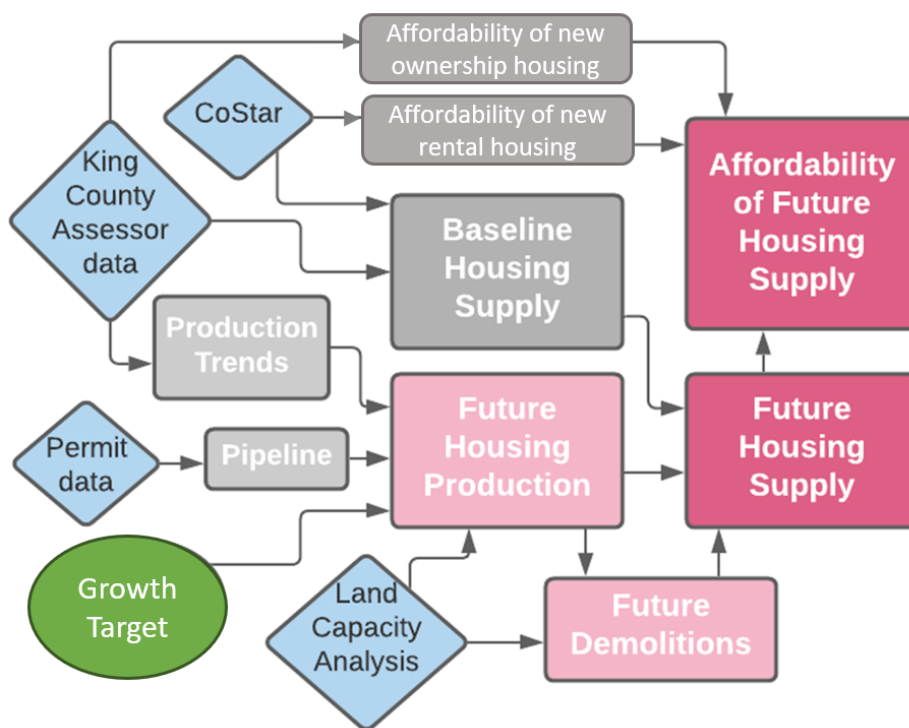
## APPENDIX C: HOUSING SUPPLY FORECASTING METHODOLOGY

BERK prepared a housing supply forecast for each scenario that varies based on the total growth housing target. This appendix describes the model and assumptions used to forecast the future housing supply in each scenario. See the main report for the rationale behind this forecasting approach.

### Overview

**Exhibit 71** provides a diagram of BERK’s housing supply forecasting model. Arrows represent the flow of information from one element to the next. The blue diamonds represent external data sources. Each of these is described in Appendix A: Data Sources. The green circle represents a key forecasting assumption (total net housing growth). The grey and light pink boxes are interim analysis steps to develop inputs for the forecast model. The dark pink boxes represent the key outputs. This appendix provides a brief discussion of each step in this process (the grey and pink boxes).

### Exhibit 71. Housing Supply Forecast Model



Source: BERK, 2020.

### Baseline Housing Supply

Before projecting future housing supply, BERK established a baseline inventory of existing housing units by housing type and affordability level. This baseline inventory derived from a combination of King County Assessor data, CoStar rental inventory data, and City-provided data on existing subsidized housing, as described in Appendix A.

BERK summarized King County Assessor data to provide a total count of existing housing units by type (single-family, duplex/triplex/four-plex, condominium, townhome, apartment, and senior/other) for each

market area. Next, we integrate with the inventory of income-/rent-restricted housing from the City to determine the remaining number and type of units assumed to be market-rate.<sup>31</sup>

### Affordability of Baseline Market-Rate Housing Supply

CoStar data on prevailing market rents was used to stratify the apartment inventory into affordability categories within each market area. Because CoStar does not provide 100% coverage of all apartments in Seattle, the total number of rental units in the inventory is based on Assessor data. CoStar rent data was used to determine the relative share of units available at each affordability level. In addition to apartments, this model assumes all multiplex units and ADUs are in the rental supply. For multiplex units, the model applies the average of CoStar’s affordability distribution for 2-, 3-, and 4-bedroom apartments in the same market area. Similarly, for ADUs, the model applies the 1-bedroom affordability distribution.

**Exhibit 72. Baseline Rental Housing Unit Affordability by Market Area - Apartments**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Citywide
<50% AMI	4.50%	11.52%	7.76%	13.73%	12.04%	14.66%	25.35%	9.08%
50-80% AMI	25.56%	41.06%	26.90%	76.69%	44.87%	49.70%	50.46%	38.65%
80-100% AMI	22.35%	34.82%	40.07%	7.97%	25.22%	30.47%	9.54%	23.47%
100-150% AMI	39.65%	12.46%	25.18%	1.62%	17.65%	5.17%	14.65%	25.16%
>= 150% AMI	7.93%	0.15%	0.10%	0.00%	0.23%	0.00%	0.00%	3.64%

Sources: King County Assessor, 2020; CoStar, 2020; BERK, 2020.

<sup>31</sup> This study assumes no net growth or loss of income-/rent-restricted units over the next 25 years. Of course, this does not reflect Seattle policy. However, this supply forecasts focuses exclusively on market rate housing production. The assumption of no net change for income-/rent-restricted housing helps to highlight future gaps in meeting housing needs that are not addressed by current market trends and expectations.

**Exhibit 73. Baseline Rental Housing Unit Affordability by Market Area - Multiplex**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Citywide
<50% AMI	2.91%	11.15%	7.50%	13.30%	9.04%	14.01%	18.49%	8.17%
50-80% AMI	7.21%	29.76%	27.18%	73.83%	39.97%	56.97%	49.23%	32.74%
80-100% AMI	12.38%	39.07%	16.44%	9.61%	21.26%	19.40%	11.27%	16.45%
100-150% AMI	46.08%	19.47%	48.56%	3.25%	28.83%	9.63%	21.01%	30.63%
>= 150% AMI	31.42%	0.55%	0.32%	0.00%	0.91%	0.00%	0.00%	12.01%

Sources: King County Assessor, 2020; CoStar, 2020; BERK, 2020.

**Exhibit 74. Baseline Rental Housing Unit Affordability by Market Area – ADU's**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Citywide
<50% AMI	2.71%	10.29%	8.11%	11.69%	11.09%	13.24%	33.53%	8.09%
50-80% AMI	19.62%	34.77%	24.87%	80.11%	35.16%	45.39%	45.00%	33.50%
80-100% AMI	23.83%	39.90%	49.14%	7.33%	33.76%	37.61%	10.53%	27.26%
100-150% AMI	51.31%	15.03%	17.87%	0.88%	19.99%	3.76%	10.94%	30.01%
>= 150% AMI	2.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.14%

Sources: King County Assessor, 2020; CoStar, 2020; BERK, 2020.

The affordability of other housing types (single family, townhome, and condos) was evaluated from the perspective of affordability to a first-time homebuyer based on assessed value (see Appendix B: Homeownership Affordability Assumptions for details, including conversion to assumed sales price). While there are other ways of evaluating the affordability of these units, this approach provides a standard way to understand the affordability of opportunities for homeownership if these units were available on the market for purchase.

The housing supply forecasting model assumes all units in the baseline inventory will remain at the same affordability level throughout the 25-year forecast period, unless they are demolished and removed from the supply.<sup>32</sup> See Forecasting Assumptions on page 60 for further discussion.

### Housing Production Trends

While the overall amount of net housing growth during the analysis period is determined by the growth target of each scenario, the housing supply forecast model distributes this growth among housing types and across geographic areas within the city based on recent production trends. To assess geographic distribution of new housing across the city, BERK summarized total permitted housing units by market area for the period 2010-2019. The future housing supply model uses each market area’s share of recent housing production is used to assign future growth.

**Exhibit 75. Permitted Housing Units by Market Area (2010-2019)**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Citywide
<b>Units Permitted</b>	26,537	5,095	4,653	5,653	15,300	5,463	6,531	<b>69,232</b>
<b>Percent of Total</b>	38.33%	7.36%	6.72%	8.17%	22.10%	7.89%	9.43%	<b>100%</b>

Source: City of Seattle permit data, 2020.

BERK also analyzed King County Assessor data to understand recent trends in the production of different housing types. We summarized the number of housing units constructed in each market area by housing type (single-family, townhome, condominium, apartment, or multiplex) during the period 2000-2019 and calculated annual average production for each category. We then calculated the proportionate share of annual production for each housing type by market area. This resulted in a housing mix profile for each market area, which formed the basis for forecasts of future production by type in each market area, assuming availability of land capacity for that housing type (see discussion of Future Housing Production below).

<sup>32</sup> Demolitions below for details.

**Exhibit 76. Housing Mix Profiles – Relative Share of Average Annual Housing Production (2005-2019)**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Citywide
<b>Single Family</b>	5	90	77	135	195	142	162	806
	0.17%	13.93%	14.61%	348	403	5,730	21.51%	9.87%
<b>Townhome</b>	33	152	71	46.84%	53.52%	70.16%	156	966
	1.10%	23.53%	13.47%	6	7	40	20.72%	11.83%
<b>Condominium</b>	315	31	16	0.81%	0.93%	0.49%	25	625
	10.49%	4.80%	3.04%	6.93%	6.14%	10.50%	3.32%	7.65%
<b>Apartment</b>	2,649	366	358	530	1,075			
	88.18%	56.66%	67.93%	61.20%	66.03%			
<b>Multiplex</b>	2	7	5	2	11			
	0.07%	1.08%	0.95%	0.23%	0.68%			

Sources: King County Assessor, 2020; BERK, 2020.

BERK also analyzed available data from CoStar to summarize trends regarding unit sizes in new apartment buildings. Exhibit 77 summarizes all new multifamily rental units constructed during the past decade with breakdowns by unit size and market area, based on building data recorded in CoStar. One-bedroom apartments are the most common form of rental housing built during this period in all market areas. Apartments with three bedrooms or more are very rarely built in any of the market areas. The biggest differences among market areas is the mix between 0-bedroom and one-bedroom apartments. This information is used in BERK’s housing supply forecast model to determine the distribution of new apartments by unit size for each market area.

**Exhibit 77. New Rental Housing Units Built by Unit Size, 2010-2019**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast	Total
New multifamily rental units constructed (2010-2019)	24,024	2,804	3,479	3,593	10,277	3,449	4,179	51,805
<b>Percentage of new multifamily rental units built, by unit size</b>								
0 Bedroom	24.2%	41.7%	16.3%	30.3%	36.2%	24.4%	18.6%	26.9%
1 Bedroom	56.2%	43.1%	66.4%	46.1%	46.6%	55.6%	48.3%	52.9%
2 Bedroom	18.1%	15.2%	16.6%	21.8%	16.0%	20.0%	26.3%	18.4%
3 Bedroom	1.5%	0.0%	0.6%	1.5%	0.9%	0.0%	3.6%	1.3%
4 Bedroom	0.1%	0.0%	0.1%	0.3%	0.0%	0.0%	1.6%	0.2%
More than 4 Bedrooms	0.0%	0.0%	0.1%	0.1%	0.3%	0.0%	1.6%	0.2%

Source: CoStar, 2020; BERK, 2020.

**Pipeline Estimation**

“Pipeline” refers to housing development that has already been permitted but has not yet been built. Although permit data can provide some estimates about what projects can be expected, including their type, location, and size in units, it does not provide perfect information about the timing of these future units. Some permits may be abandoned before these projects are complete, while other construction may be delayed for reasons outside of the permitting process.

To adapt the permit data for use in short- and moderate-term projections of expected unit yields in the city, we adapted a process to review previous permitting data for completed and abandoned projects to estimate the success and timing of the relevant projects. As part of this process, we reviewed new building and demolition permits for three types of projects: single-family and duplex, multifamily with less than 50 units, and multifamily with 50 units or more.

To evaluate how future units could be developed from outstanding permits, we coordinated the following process for permits:



- All permits were divided according to the building types above, and whether the permits were issued or pending. For all relevant permits, it was also determined whether these applications were still active or if the permit was not issued or used before it expired or was cancelled.
- For permits issued:
  - The proportion of units not completed between 2005 and 2012 due to the abandonment of permits was calculated, as well as the distribution of units by the number of years necessary to get from an issued permit to a completed project.
  - Under each category and for each year from 2015 to 2020, the proportion of units under abandoned permits was calculated. If this value did not reach the average failure rate for permitted units for 2005–2012, additional units were excluded to match the average abandonment rate.
  - For the remaining permitted units, the amount of time required for these units to be completed was estimated using the proportions from the distribution of time to completion from 2005–2012. Based on these estimates, projections of completed units were extended forward to the 2031–2035 period.
- For permit applications submitted but with a permit decision pending:
  - The proportion of units under permit applications between 2005 and 2012 that were denied or pending, and the proportion of applications where permits were issued and pending or cancelled/not completed were calculated. Additionally, the distribution of units by the number of years necessary to get from a submitted permit application to a completed project was calculated for completed projects.
  - Under each category and for each year from 2015 to 2020, the number of units under all applications received was adjusted to ensure that the proportion of units under abandoned permits was equal to at least the 2005–2012 average. The number of units with permits pending was also adjusted to ensure that the proportion of units under denied or withdrawn applications was equal to the 2005–2012 average as well.
  - As with permitted projects, for the remaining units with pending applications but no issued permits, the amount of time required for these units to be completed was estimated using the proportions from the distribution of time to completion from 2005–2012. Based on these estimates, projections of completed units were extended forward to the 2031–2035 period.

These estimates relied on both addition/new construction and demolition permits and identified both the units constructed and demolished. Construction types were identified from the number of units constructed, as well as the text description from the permit records.

## Affordability of New Housing

### *New Ownership Housing Affordability*

For single-family, townhomes, and condominiums, the housing supply forecasting model assigns future housing growth in each market area to affordability categories based on assessed property values for

recently built ownership housing products. To do this, BERK developed assumptions based on the affordability of recent development (2015 – 2020) in each market area. We used the assumptions described in Appendix B: Homeownership Affordability Assumptions to convert assessed home values of newly built homes to affordability levels. We then calculated the percentage of new units in each affordability category. The forecasting model assigns new housing development in each market area to affordability categories based on these same percentages. See **Exhibit 78** for single-family, **Exhibit 79** for townhomes, and **Exhibit 80** for condominiums.

**Exhibit 78. Affordability Profiles of New Single Family Homes, by Market Area**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast
<50% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
50- 80% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80- 100% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
100- 150% AMI	0.00%	1.47%	0.00%	7.49%	2.17%	6.81%	15.88%
>= 150% AMI	100.00%	98.53%	100.00%	92.51%	97.83%	93.19%	84.12%

Sources: King County Assessor, 2020; BERK, 2020.

**Exhibit 79. Affordability Profiles of New Townhomes, by Market Area**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast
<50% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
50- 80% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80- 100% AMI	0.00%	1.14%	0.00%	1.40%	1.09%	3.63%	0.53%
100- 150% AMI	7.47%	5.99%	1.61%	19.07%	2.58%	33.89%	34.40%
>= 150% AMI	92.53%	94.01%	98.39%	80.93%	97.42%	66.11%	65.60%

Sources: King County Assessor, 2020; BERK, 2020.

**Exhibit 80. Affordability Profiles of New Condominiums, by Market Area**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast
<50% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
50-80% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
80-100% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
100-150% AMI	5.48%	66.67%	0.00%	0.00%	69.33%	69.23%	2.68%
>= 150% AMI	94.52%	33.33%	100.00%	100.00%	30.67%	30.77%	97.32%

Sources: King County Assessor, 2020; BERK, 2020.

*New Rental Housing Affordability*

Like ownership housing discussed in the previous section, the housing supply forecasting model assigns future rental housing growth (apartments, multiplexes, and ADU’s) in each market area to affordability categories. To do this, we used the affordability thresholds by income level and unit size from **Exhibit 31** in the Baseline Conditions section to classify recently developed, market apartment units (2015-2019) in the CoStar database into affordability categories for each market area. We then calculated the percentage of new units in each affordability category for each market area.

The forecasting model assigns new rental housing development in each market area to affordability categories based on these same percentages. Affordability profiles for apartments are based on rents for all market apartment units in the CoStar dataset (**Exhibit 81**). Affordability profiles for multiplexes (**Exhibit 82**) are based on rents for larger apartment units (2-bedroom and larger), assuming that duplex, triplex, and fourplex properties cater to larger households. Conversely, due to size limitations, affordability profiles for ADU’s and DADU’s (**Exhibit 83**) are assumed to be consistent with rents for 1-bedroom apartment units.

**Exhibit 81. Affordability Profiles of New Apartments, by Market Area**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast
<50% AMI	0.00%	0.00%	0.00%	13.59%	3.14%	3.81%	0.00%
50-80% AMI	7.53%	40.63%	4.26%	47.62%	38.40%	21.21%	24.93%
80-100% AMI	15.70%	47.93%	67.39%	23.34%	28.24%	60.37%	19.07%
100-150% AMI	60.73%	10.63%	27.92%	15.45%	29.53%	14.62%	55.99%
>= 150% AMI	16.04%	0.81%	0.43%	0.00%	0.70%	0.00%	0.00%

Sources: CoStar, 2020; BERK, 2020.

**Exhibit 82. Affordability Profiles of New Multiplexes, by Market Area**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast
<50% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
50-80% AMI	0.00%	0.00%	0.00%	29.49%	0.83%	0.00%	0.00%
80-100% AMI	1.99%	54.73%	4.57%	14.10%	17.52%	46.79%	20.68%
100-150% AMI	46.07%	39.19%	92.69%	56.41%	76.22%	53.21%	79.32%
>= 150% AMI	51.94%	6.08%	2.74%	0.00%	5.42%	0.00%	0.00%

Sources: CoStar, 2020; BERK, 2020.

**Exhibit 83. Affordability Profiles of New ADUs, by Market Area**

	Greater Downtown	East Central	West Central	North	North Central	Southwest	Southeast
<50% AMI	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
50-80% AMI	0.39%	6.98%	0.00%	41.13%	12.29%	13.23%	16.99%
80-100% AMI	15.78%	76.26%	80.81%	41.89%	48.17%	75.37%	29.17%
100-150% AMI	78.37%	16.76%	19.19%	16.98%	39.54%	11.39%	53.85%
>= 150% AMI	5.46%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Sources: CoStar, 2020; BERK, 2020.

**Demolitions**

The housing supply forecast model assumes that new development will require the demolition of some existing structures, resulting in the loss of existing housing units from the baseline supply over time as new housing units are constructed. The rate of demolition and the type of housing units demolished is likely to vary by market area, depending on the characteristics of the existing housing stock and the amount of development capacity available. To estimate the rate of demolition for each market area by housing type, BERK calculated a weighted ratio of overall market area development capacity to existing housing units on redevelopable parcels for each housing type, based on the City’s land capacity analysis. As described in the report under Housing Production Trends, construction of new single-family homes in Seattle often entails the demolition of an older, more affordable home. In addition to projected demolitions from development activity, BERK assumed that some portion of new development in single-family zones would consist of one-for-one replacements of existing single-family homes. Such replacements would have a net zero effect on the amount of housing available in the City. To account for this, BERK compared historic permitting and demolition activity (2000-2019) in single-family zones to estimate a single-family replacement factor for each market area. This factor represents the ratio of single-family residences constructed to single-family homes demolished. This factor was applied to projected single-family housing production in each market area to establish a more accurate estimate of new single-family growth.

The housing supply forecast model uses these ratios to estimate the number of units demolished for a given number of new units. Essentially, market areas with a larger proportion of available capacity located on redevelopable parcels instead of vacant land are likely to experience a higher amount of demolition to achieve new development than areas with a greater proportion of capacity on vacant land. As part of the estimation of future housing production, the housing supply model uses the calculated capacity ratios to project the number of demolitions likely to result from the amount of housing growth

anticipated in a given 5-year increment period. Demolitions associated with pipeline projects are estimated based on review of permit application data, as described in the Pipeline Estimation section.

Demolished units subtracted from the baseline inventory are assumed to have been the most affordable market units of that housing type in the market area. In other words, demolitions result in a reduction of units at the most affordable end of the market supply in each Market Area.

## Future Housing Production

The housing supply forecast model projects future housing production based on a combination of recent housing production trends, pipeline development, and anticipated growth necessary to meet the scenario's growth target. The model uses the growth target as an overall control total for total net housing growth during the analysis period. The model distributes the growth across the analysis period, calculating average annual net housing growth for each 5-year incremental period. Added to this is the number of anticipated demolitions (discussed in the previous section), resulting in overall gross housing production.

Housing production is modeled sequentially for each 5-year forecasting period. Projected growth levels necessary to meet the growth target and housing production anticipated from pipeline development projects are computed in parallel, then compared and combined as described in the following sections.

### *Allocate Housing Growth by Market Area and Housing Type*

The model assigns anticipated new housing production across market areas and housing types based on the assumptions outlined in the Housing Production Trends section of this appendix. The model uses the City's land capacity analysis to ensure that the amount of housing production assigned to each market area and housing type does not exceed available development capacity; any growth in a market area in excess of available capacity for a given housing type is redistributed to other housing types within the same market area based on proportion of available capacity. Housing units for each market area and housing type are then assigned to affordability categories based on the assumptions outlined in the Affordability of New Housing section.

### *Compute Pipeline Growth by Market Area and Housing Type*

For each market area and housing type, the model summarizes housing production anticipated from pipeline development projects. Similar to the growth allocation process outlined above, new units are distributed across affordability categories based on the assumptions outlined in the Affordability of New Housing section.

### *Compare Pipeline Growth to Allocated Growth and Apply Demolitions*

For each market area and housing type, the model compares the housing production anticipated from pipeline projects to the allocated growth for that same market area and housing type and carries the higher growth number forward. Projected demolitions are then applied for each market area and housing type to determine net housing growth for the 5-year increment period. As described above, for each market area and housing unit type, demolitions are applied to the lowest affordability categories where units exist.

## Future Housing Supply

At each 5-year increment, the model adds the anticipated net housing production by market area, housing type, and affordability category for that period to the previous running total housing supply. The model then repeats the housing forecasting process for subsequent 5-year increment periods, adjusting the remaining growth target to ensure that total net housing growth for the analysis period does not exceed the overall scenario growth target.

Once total net housing growth for the first 5-year increment period has been determined, the model subtracts that amount from the overall growth target. For each subsequent 5-year increment period, the calculation of anticipated housing production is based on the amount of target growth remaining, and the model repeats this target adjustment for each iteration.

For example:

If the overall Scenario 1 growth target is **112,000** housing units, each 5-year period would average **22,400** net new housing units.

If a large amount pipeline development is anticipated during the first 5-year period (2020-2025), and the model projects growth of **25,000** units during this period, the model would recompute the remaining target available for future periods.

- $112,000 \text{ total target} - 25,000 \text{ growth} = 87,000 \text{ remaining target}$
- $87,000 \text{ remaining target} / 20 \text{ remaining years} = 4,350 \text{ average units annually}$
- $4,350 \text{ units annually} \times 5 \text{ years} = \mathbf{21,750} \text{ units per remaining 5-year period}$



## APPENDIX D: RECOMMENDATIONS FOR USING COSTAR DATA IN ONGOING MONITORING

When Dupre+Scott Apartment Advisors closed at the end of 2017, they left a gap in available local data for monitoring rental housing market affordability in the Seattle metro area. Providers such as Commercial Analytics, CoStar Realty Information Inc., and RealData, Inc. (Apartment Insights) have worked to address this gap with different products. Among these data firms, CoStar provides a unique service that offers several benefits compared to competitors, as well as some notable limitations. Although the primary market for CoStar's services has been with real estate professionals such as brokers, accountants, and appraisers, there is information available through their services which can be useful in evaluating elements of the housing market for policy and programmatic guidance as well.

One important note here is that while tracking "rents" appears to be straightforward, it is complicated by two questions: what exactly is being measured as "rent", and how rent data are collected in the market.

With respect to what is being measured, rent data can be collected and reported in a few ways:

- *Asking rents* are the rents provided in advertisements and real estate listings. This information is the easiest to collect, but these do not always reflect what is being paid from existing leases or whether the rent listed is reasonable for the market.
- *Contract rents* are the actual monthly rents listed on lease contracts. Although this is the gross rent paid by tenants, these values may be harder to collect as they require information directly from landlords.
- *Effective rents* are based on asking or contract rents, but they deduct concessions such as free rent as an average over the term of the rent. This can be a more sensitive measure of market rents, as landlords will often rely on concessions rather than reducing contract rents and the ability to increase rents in the future.

Additionally, rents may also be "unbundled" from other space or services available to tenants. This may differ between neighborhoods and cities, but the most common unbundled costs involve rents for on-site parking.

As suggested by the types of rent information included above, rent data can be collected in two main ways. First, a *direct survey* of landlords or tenants can be used to collect this information. This kind of effort can require a lot of resources and may not have complete coverage of all units in a market. However, this is the best way to identify actual contract rents, and to confirm the characteristics of the corresponding units.

An *indirect survey* takes less resources and can be developed by relying on other sources of data such as rental listings. Although this is more efficient in some respects, it only collects data on properties available currently available for rent, meaning that this type of survey data does not include other units that are already under contract, which is a significant gap in data.

In both cases (but primarily with indirect surveys), there may be gaps in the data that will bias the results. In these cases, imputed rents can be reported where rent levels are estimated based on the data available and the characteristics of housing units that do not have rent data available. This ensures that any biases with data collection do not impact the general statistics calculated across an entire market.

CoStar relies on secondary data collection through available data sources, including online listings and accounting databases. While some direct surveys are used, the primary source of this information is through rental listings data collected over time, as well as other available data on building and unit characteristics. These values are imputed to provide coverage over all identified rental properties with four or more housing units in a building. Other characteristics of CoStar relevant to its use for citywide housing policy include the following:

- **Broad coverage from multiple data sources.** As noted above, CoStar relies primarily on listings data to collect market data. Among the rental market data provider options available, CoStar has significant breadth and depth of coverage. The company has this coverage in part because its parent company has acquired marketing and real estate listings companies such as Apartments.com, STR, and LoopNet. Drawing on these sources of data allows the company to compile a wide range of information about commercial properties in an area, especially with respect to larger properties owned by institutional investors and other large investment companies. CoStar also uses local tax assessment data and other available sources to compile a more detailed inventory of multifamily properties, including smaller residential and mixed-use buildings. This broad set of data allows CoStar to model and refine estimates for other properties about which listing data is not available.
- **Incorporation of data analytics into the product.** Another key feature with CoStar is an extensive set of data analytics included with the primary package. These analytics include information such as current asking and effective rents, estimated cap rates, recent property sales, vacancy rates, deliveries, and absorption over user-specified areas. This information can also allow for in-house projections of these metrics by CoStar for the real estate industry.
- **Gaps in available data, especially with respect to the lower end of the market.** CoStar compiles information from a range of sources, including data contributed directly by property management staff. The data available from CoStar about some of these properties may be incomplete if no marketing information is available. In these cases, CoStar relies on statistical models to estimate rents and some building characteristics.

Direct data available for properties in the CoStar system tends to skew towards larger and newer properties owned by large companies. Rents for smaller, older, and lower-quality housing units with local ownership are more likely to be estimated and may be subject to error. As a result, although CoStar provides information for a greater number of properties compared to survey-based data sources, the data may be less reliable, especially for certain segments of the market.

- **No historical data for individual properties.** CoStar's focus is on professional real estate services. As a result, it only has information on price movements and other aggregate statistics over time through area-wide metrics calculated by CoStar. No historical data can be extracted for individual properties. This can make it more challenging to use this information for monitoring other trends over time not included in the aggregate statistics provided.
- **Demolished properties, pipeline projects, and future market projections are included.** In addition to a current view of the market, the CoStar database also provides a full longitudinal look at aggregate statistics in the real estate market over time. Current units as well as units in previously demolished projects are both tracked in the database and inform metrics over time, which allows for

more consistent monitoring. Additionally, information on future development and market conditions is also included. Pipeline projects are included based on contributions from developers, again through marketing services accessed by CoStar. Note, however, that these pipeline projects may not necessarily be updated if projects are delayed or cancelled.

- **Local property metrics incorporate regional trends.** CoStar can provide analytics to identify trends in rents for a market or a particular element of that market, such as a certain property type or neighborhood. However, because of potential issues with data coverage over given areas and necessary steps for imputation, estimates of rent trends over time for submarkets or different portions of the market will reflect broader price movements. This means that price movements in one location will tend to track closely with the statistics from other neighborhoods and cities in the surrounding region.
- **Data rights management.** Proper use of online data and analytics from any company requires consideration of the terms of service for use of that data. With respect to data security and use, CoStar has strict protocols for licensing, and has pursued action against users that violate these rules. While this is not unexpected in the real estate industry, especially given the value of the data, this level of control can require some additional considerations.

Recommendations for the use of CoStar include the following:

- **CoStar metrics are best applied over broad areas, especially with respect to rents.** The additional information provided by CoStar can be useful for several applications with housing, as it provides a third-party data source that can evaluate rental activity over the short term (within one quarter). However, the limits with respect to data gaps and the use of regional data mean that property metrics are best used at a high level. The CoStar dashboard does not provide building-level historical data for actual asking and effective rents observed, only aggregate statistics over the entire housing stock and current values by building. Similarly, projections for space absorption may be smoothed over time, and may not accurately reflect deliveries or absorption within a neighborhood.
- **Individual building information should be reviewed to prevent issues with imputation.** Over the entire dataset, CoStar has worked to provide as detailed of coverage as possible, incorporating information such as tax assessment data for properties that may not be otherwise represented. CoStar may impute rents for individual properties for which there is no current information. This is especially true for units and units in smaller, older buildings, estimated rents per square foot may be unrealistically low.

Although this modeling of missing data can address gaps, estimated rents for certain records may not be accurate. Values may be too high or low, often with underestimates of rent for older, smaller units. QA/QC reviews may be necessary for future applications of the data to determine if this may influence analytical results. (Note that the housing supply forecast in this report includes a discussion of this effect.)

- **It is challenging to catalogue rent- and income-restricted units based on CoStar data alone.** Although the CoStar database includes a field to flag buildings that include rent- and income-

restricted units, this information is not detailed by unit. Additional information will be necessary to provide more information and separate these developments.

- **Geographic location of properties by jurisdiction may not be completely accurate.** A minor issue is that although properties in the CoStar database are geocoded, properties are filtered based on address and not on spatial location. Properties in areas located just north or south of the city of Seattle, may be identified as being in “Seattle” but are actually located in unincorporated King County or other jurisdictions. This is only applicable to a few properties and can be filtered in GIS, but this may be relevant where data is being mapped out to street locations.
- **Use Zillow instead of CoStar for tracking average rents for an area over time.** BERK’s comparisons of CoStar and the Zillow Observed Rent Index (ZORI) at the zip code scale indicate that Zillow shows more differentiation in trends between areas. This suggests that ZORI shows how rents in different parts of the city have changed at different rates, whereas CoStar provides trends smoothed more by broader regional trends.