

## Data Notes, Methodology & Glossary

This document describes the sources, data methodology and key terms used in the King County Regional Affordable Housing Dashboard. Each section header references the title of the dashboard section, and the notes are numbered for easy reference. If there are any additional questions, comments, or suggestions, please contact King County staff through the link in the [website](#).

### Data Notes & Methodology

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The dashboard uses two different types of United States (US) Census-derived data for housing affordability. Countywide data is derived from **Public Use Microdata Sample (PUMS)** to provide the most recent estimates of population trends. Jurisdictional data in the dashboard generally comes from **Comprehensive Housing Affordability Strategy (CHAS)**, which is released two years behind PUMS data. CHAS has the advantage of being much more accurate for smaller jurisdictions due to its larger sample size and alignment with jurisdictional boundaries. To keep calculations as consistent as possible, CHAS methodologies were replicated for calculating affordability, including the use of the **HUD Area Median Family Income (HAMFI)** limits for determining housing unit affordability, household income categories, and cost burden.

### Key Housing Affordability Indicators

1. Cost Burden Over Time. “Cost burden” is defined by the US Department Housing and Urban Development (HUD) as a household paying more than 30% of their annual income for housing. “Severe cost burden” is defined as a household paying more than 50% of their annual income for housing. “Just cost burden” are households spending between 31% and 50% of their annual income on housing. A household is considered “unburdened” if they pay 30% or less of their annual income on housing. Countywide cost burden over time is calculated using PUMS 1-year 2019 data.

Cost burden in PUMS is calculated by determining what percentage of a household’s annual income is spent on housing costs, and then using that percentage to place them into one of the three cost burden categories listed above. To calculate housing costs for renters, gross rent is used, which includes contract rent plus additional costs for utilities (water, electricity, gas) and fuels (oil, coal, kerosene, wood, etc.). To calculate housing costs for homeowners, all ownership costs are used, which includes mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second mortgages, home equity loans, and other junior mortgages); real estate taxes; fire, hazard, and flood insurance on the property; utilities (electricity, gas, and water and sewer); and fuels (oil, coal, kerosene, wood, etc.). It also includes, where appropriate, the monthly condominium fee for condominiums and mobile home costs (installment loan payments, personal property taxes, site rent, registration fees, and license fees).

2. Cost Burden by Income, Race/Ethnicity/Tenure/Age. CHAS data is summarized at the jurisdictional level (which are defined by HUD and the American Community Survey as “places”). People who are marked as having cost burden “not computed” in CHAS are not included in the data shown in the dashboard. CHAS data is collected using a 5-year sample, so the 2017 data includes sampling over a period of 2013-2017, and thus is slightly less current than PUMS data, which provides a one-year sample. For data on individual CHAS tables used, see the individual data source/notes sections below in Disparities in Cost Burden. Disparities in cost burden are calculated using PUMS 5-year 2015-2019 data. The same methodology and definitions of cost burden described in section 1, *Cost Burden Over Time* are used. Five-year PUMS data is used instead of 1-year PUMS data because sample sizes are larger, which provides more accurate estimates for smaller demographic groups. Disparities are calculated at the household level for four categories: tenure, income category, race/ethnicity, and age category. To determine the race/ethnicity and age category of a household, the race/ethnicity and age of the PUMS defined “reference person” is used, which is analogous to the head of the household. This requires joining PUMS housing- and person-level datasets together (PUMS data for each year comes in two datasets, one of all households, and one of all individual people), as household income and housing costs are in the housing level dataset, and race and age of the reference person are in the person level dataset. The PUMS serial number is used to link between these two datasets. Group quarters and vacant units in the households dataset are excluded from all figures. The "Other race not mentioned" category was left off this list due to its small sample size. "Cost burden not computed" for those who do not have an income was also left off for legibility.
  
3. Affordable and Available Units. Affordable and available unit status is calculated using 2019 1-year PUMS data. Housing units are defined as being "affordable" differently for rental and homeownership units. A rental unit is defined as being affordable to a renter in a certain AMI category if people in that AMI category can afford to pay its gross rent without being cost burdened (see section 1, *Cost Burden Over Time* for more details on how cost burden is defined). A homeownership unit is defined as being affordable based not on its monthly costs, but rather its property value. This is because a home with a high property value with a mortgage fully paid off may have relatively low monthly homeownership costs, but the home would still not be affordable to most low-income households. To calculate this, the HUD methodology used to calculate affordability in CHAS is replicated. For more details on that methodology, see HUD's CHAS Affordability Analysis [here](#). An owner affordability ratio of 3.36 is used, which indicates that a household could afford to purchase a home if the home's value is less than or equal to 3.36 times the household's household-size-adjusted income. This ratio is subject to changes in interest rates, which fluctuate yearly, but is used to align with available HUD methodology used to create the CHAS dataset.

Housing units are defined as being "available" if they are currently being occupied by someone in or below the current AMI bracket they are affordable to. For example, if a unit is affordable at 31-50% AMI, and is being rented by someone with an income of 50% AMI or below, that unit is classified as being affordable at 31-50% AMI, and is available. However, if that same unit was instead being rented by someone making higher than 50% AMI, then that unit would still be

affordable at 31-50% AMI, but would not be available, as it is occupied by someone above that AMI bracket.

Housing units without complete kitchen or plumbing facilities were excluded from these figures. Vacant units that were not listed as being for rent or for sale were also excluded, as were group quarter units.

4. Income Restricted Units. The King County Income-restricted Housing Database was used to determine the number of income-restricted units in the county, in individual jurisdictions, and within transit walksheds. The database was created jointly by Puget Sound Regional Council (PSRC) and King County Department of Community and Human Services. It includes data on income-restricted units in King County that had been placed in service as of December 31, 2019. Units in the development pipeline that were not yet in service were excluded. Data was provided by the City of Seattle Office of Housing, King County Department of Community and Human Services, King County Housing Authority, Seattle Housing Authority, Renton Housing Authority, A Regional Coalition for Housing (ARCH), HUD, and the Washington State Housing Finance Commission, and then compiled and deduplicated to determine the number of properties and income-restricted units in King County.

The database includes income-restricted units funded by both government (often times referred to as government subsidized housing) and units created without the use of government subsidy that are income-restricted and projected to remain affordable long-term. The database does not include units created through incentive programs such as units in market rate buildings created through regulatory requirements or incentives such as incentive zoning, inclusionary zoning, density bonuses, or Multifamily Tax Exemption from any jurisdiction other than Seattle. It does include units created through Mandatory Housing Affordability and Incentive Zoning programs in Seattle, but not through other similar policies in other jurisdictions. The database does not include data on housing choice vouchers, a federal housing program that helps low-income households rent privately-owned housing. Data on homeownership units and confidential units such as domestic violence shelters were excluded entirely.

Data displayed at the jurisdictional level may differ from totals reported by individual public funders and providers. For example, income-restricted units in Seattle may be funded by City of Seattle Office of Housing, King County Housing Authority, or Seattle Housing Authority, and thus the total number of income-restricted units in Seattle is greater than individual totals reported by City of Seattle Office of Housing or Seattle Housing Authority. Data providers submitted data on the total number of restricted units in a property, and the number of restricted units at each specific AMI level. For a small number of properties, the total number of restricted units at each of the specific AMI's did not match the total number of restricted units reported. For all totals reported in the dashboard, we used the sums of the specific AMIs so that we can report the number of units at each AMI, not the total number of restricted units value.

The database will be updated yearly to track year-over-year progress, and thus data may change slightly as data is validated by housing funders and providers, new years of data are added, and better measures of units going out of service are added.

## Regional Progress to Implement the Action Plan

5. Goal 2, Affordable Unit Production. The information is based on analyses prepared for the Affordable Housing Committee in [September 2020](#) and the [May 2021](#) and is subject to change based on final program design of each revenue tool, annual fluctuations in payroll and sales tax collections, and changes in development costs.
6. Goal 3, Affordability Near Transit. Unrestricted units are priced affordably without public subsidy or restriction on who can rent the unit. This information was derived from CoStar. CoStar data is not able to track rents for all rental units in a given area, and thus affordability was calculated using information on the units available. Income-restricted data was derived from the King County Income-Restricted Database. See section 4 of the data notes for more information on income-restricted units and section 11 for more overall context.
7. Goal 4, Tenant Protections. This list is not exhaustive and some jurisdictions may offer stronger local tenant protection ordinances than Washington State. Data was compiled via research of jurisdictional codes and reflects policies in effect as of December 31, 2020.
8. Goal 6, Housing Growth & Diversity. This chart reflects information reported by jurisdictions to PSRC in 2019 in response to a question about how many affordable units each policy produced. Jurisdictions with one of these policies in place but no affordable housing unit production are excluded from this dataset.
9. Goal 7: Stakeholder Engagement. This dataset is not comprehensive of all stakeholder efforts.

## Measuring Impact

10. Goal 2, Income Restricted Units Created in 2019. Data comes from the King County Income-restricted Housing Database (for further information, please see section 4 about income-restricted Units above). The number of income-restricted units created in 2019 only counts the number of units that went into service in 2019. It does not take into account units that went out of service in 2019. Thus, it does not represent the net change in income-restricted units in 2019. Data in this section only includes units affordable to a household earning at or below 50% AMI.
11. Goal 3, Affordability Near Transit. Affordability near transit is measured using data on housing units from two datasets: CoStar rental data and the King County Income-restricted Housing Database. CoStar is a private firm that surveys apartments to measure affordability, and CoStar data comes from July 2020. The King County Income-restricted Housing Database was developed in collaboration with PSRC and the King County Department of Community and Human Services, and measures income-restricted units in all of King County as of December 31, 2019 (for more information, see section 4 about income-restricted units). Data from these two datasets was joined with data on the locations of transit stops served by high-capacity or

frequent transit locations (see definitions section for more) data compiled from PSRC, Sound Transit, and King County Metro. One half-mile radial walksheds were calculated around each high-capacity or frequent transit stop. Then CoStar data on unrestricted rental units and King County Income-restricted Housing Database data on income-restricted units was used to determine what percentage of rental housing units were affordable at each AMI band, and how many of those units were income-restricted or unrestricted. Where transit walksheds overlap, units were counted towards the percentage of affordable rental units in each walkshed.

The data includes planned transit locations through 2050, some of which may not be built as funding and planning changes. Planned Bus Rapid Transit stop locations assume that any existing and overlapping non-Bus Rapid Transit stations along that line would be converted to a Bus Rapid Transit station by the year 2050. High-capacity transit includes Link, Sounder Train, RapidRide, and Sound Transit Swift and Stride. Frequent transit is defined as wait times of 15 minutes or less during weekday peak service, 20 minutes or less during weekday mid-day/evening service, and 30 minutes or less during weekend mid-day service. Frequent transit includes some of the above, high-capacity transit types, as well as some King County Metro service as well. New units are defined as units created in 2019 or 2020 as reported by CoStar or or 2019 as reported in the King County Income-restricted Housing Database.

12. Goal 4, Tenant Protection Policies Enacted. See section 7, Goal 4 Tenant Protection Policies for more details.
13. Goal 4, Eviction Filings. Data on evictions filed in King County in 2019 comes from the King County Bar Association Housing Justice Project [2019 Eviction Analysis](#). Data only represents evictions filed with the courts in King County, not all evictions. Data on evictions filed in 2017 that are used to calculate the percentage change in evictions from 2017 to 2019 come from the Seattle Women’s Commission and King County Bar Association’s [“Losing Home”](#) report reviewing eviction filings in 2017. For more detailed methodology on what is included in eviction filings and how data was collected, please see the above links.
14. Goal 5, Percent BIPOC Map. Data comes from the PSRC [Displacement Risk Mapping](#) project, and uses 5-year American Community Survey (ACS) 2012-2016 demographic data to calculate the percentage of population that is not White to determine the percentage of BIPOC residents by Census tract. Five-year ACS 2012-2016 data is used to align with the sources for the Displacement Risk and Opportunity Index Maps in this section.
15. Goal 5, Percent Low Income Map. Data comes from the PSRC [Displacement Risk Mapping](#) project, and uses 5-year ACS 2012-2016 demographic data to calculate the percentage of population that is below 200% of the federal poverty level. Five-year ACS 2012-2016 data is used to align with the sources for the Displacement Risk and Opportunity Index Maps in this section.
16. Goal 5, Displacement Risk Map. Data comes from the PSRC [Displacement Risk Mapping](#) project, which estimates displacement risk using 15 total indicators across five categories of socio-demographics, transportation qualities, neighborhood characteristics, housing, and civic

engagement. Of the 15 indicators, eight derive their data from the U.S. Census Bureau's ACS 5-year estimates; the other seven use data from internal PSRC analyses and models or from external data sources. The 15 indicator scores are standardized and equally weighted to create the overall composite index. For more details, including the years the data for each indicator was collected, see technical documentation [here](#).

17. Goal 5, Opportunity Index Map. Data comes from [PSRC's Opportunity Mapping](#), which combines measures of five key elements of neighborhood opportunity and positive life outcomes: education, economic health, housing and neighborhood quality, mobility and transportation, and health and environment. Census tracts are given a score indicating their access to opportunity, then are grouped into five categories based on that score: very low, low, moderate, high, and very high. The opportunity mapping scores were most recently updated in 2018. Data comes from a wide range of different sources and differing years, for more details, please see technical documentation [here](#).
18. Goal 5, Why People Move in the Region. Data comes from the 2019 [PSRC Household Travel Survey](#). Data includes respondents from the PSRC four county region, which includes King, Snohomish, Pierce, and Kitsap counties. Non-white race and ethnicities categories were grouped together into a BIPOC category due to the small sample size for individual categories.
19. Goal 6, 0-80% AMI Home Ownership. Data comes from 2019 1-year PUMS. Homeowners are defined as households whose value for the tenure variable (TEN) in PUMS is either "Owned with mortgage or loan (include home equity loans)" or "Owned free and clear."
20. Goal 6, Capital Cost to Build or Preserve Income-Restricted Housing. Estimate comes from [King County Department of Community and Human Services Cost Modeling prepared in September 2020](#). This estimate is based on an analysis of applications received in King County's 2019 Housing Capital Funding Round. This amount is adjusted annually for inflation. Large, atypical projects are excluded due to their higher than average per unit cost. The per unit cost of preserving affordable units, including the purchase and necessary rehabilitation costs, averages about the same as new construction and is therefore not differentiated in the model. Costs may shift due to changes in land, labor, and material pricing.
21. Goal 6, Housing Units Produced Per Household Formed Ratio. This figure comes from the [2020 Housing Underproduction in Washington State](#) report published by Up For Growth. Data is for the 2010-2017 time period.
22. Goal 6, Housing Growth by Location. Rate of change is calculated using [PSRC Residential Building Permit](#) data and data on existing housing units from [Washington State Office of Financial Management \(OFM\) April 1 official population estimates](#) housing units estimates. The OFM housing unit data is used to determine the number of housing units in each jurisdiction in 2008. The net new units permitted in each year from 2008 to 2017 from the PSRC Residential Building Permit data is used to determine the net new number of units built between 2008 and 2017, which is then used to calculate the percentage change in housing units between those years.

23. Goal 6, Housing Diversity in New Construction. Net new units of each type are calculated using [PSRC Residential Building Permit](#) data. Data on the net units is reported, which takes the total number of new units permitted, and subtracts the total units lost through demolition. The net number of new units permitted are grouped into the four categories shown in the chart using the following classifications: single-family includes single-family units, accessory dwelling and duplex units; moderate density includes 1- to 19-unit structures; high density includes 20+ unit structure; mobile home/other includes mobile and modular home units and other types of dwellings.

## Jurisdictional Housing Affordability Snapshots

24. Cost Burden by Household Income. Data comes from 2013-2017 CHAS Table 8. Unlike in the Key Housing Affordability Indicators section, which uses PUMS data to calculate cost burden, this sections uses CHAS data. This is because CHAS data is summarized at the jurisdictional level (which are defined by HUD and the American Community Survey as “places”), unlike PUMS, which does not provide information at a geographic scale that aligns with smaller jurisdictions boundaries. People who are marked as having cost burden “not computed” in CHAS are not included in the data shown in the dashboard. CHAS data is collected using a 5-year sample, so the 2017 data includes sampling over a period of 2013-2017, and thus is slightly less current than PUMS data used for countywide indicators elsewhere in the dashboard, which provides a one-year sample.
25. Total Housing Units. Data comes from 2013-2017 CHAS Tables 17A, 17B, 18A, 18B, and 18C. Vacant units and units without complete kitchen and plumbing facilities are included in these totals. HUD uses VHUD and RHUD affordability measures for rental and homeownership unit affordability respectively, which correspond to HAMFI AMI levels used throughout the dashboard and is why we report housing units by AMI category. While lower-income rental units are grouped into 0-30% RHUD and 31-50% RHUD categories, homeownership units affordable below 50% VHUD are grouped into just one single 0-50% VHUD category. To align rental and homeownership unit categories, we assume that all 0-50% VHUD homeownership units are affordable at 31-50% AMI, and none are affordable at 0-30% AMI, as the distribution of home sale prices in King County means almost no units are affordable at 0-30% AMI.
26. All Existing Income-Restricted Units. Data comes from the King County Income-restricted Housing Database and includes all income-restricted units in that database in-service as of December 31, 2019. For more information on the King County Income-restricted Housing Database, see section 4.
27. Cost Burden by Race/Ethnicity. Data comes from 2013-2017 CHAS Table 9. For more details on the definition of cost burden and how it was calculated, see section 1.
28. Housing Costs. Data comes from either the 2015-2019 5-year ACS and 2013-2017 CHAS. Which data source each measure uses can be found in the tooltip when hovering over the measure. Data on median gross rent, median home value, and median household income comes from the

2015-2019 5-year ACS. Data on homeownership comes from 2013-2017 CHAS Table 11. Data on the number of households cost burdened comes from 2013-2017 CHAS Table 8 (see section 24 for more details). Data on the number of housing units comes from 2013-2017 CHAS Tables 17A, 17B, 18A, 18B, and 18C (see section 25 for more details).

29. Number of Households, By AMI Level. Data comes from 2013-2017 CHAS Table 1.
30. Number of Households, By Race/Ethnicity. Data comes from 2013-2017 CHAS Table 9.
31. Subregional Collaboration Membership. Data on membership was provided by ARCH and South King Housing and Homelessness Partners (SKHHP). Unincorporated areas were assigned a subregional collaboration membership based on their location within the respective ARCH and SKHHP sphere of influence maps, which were provided to King County.
32. Housing Policies Enacted. Data on the “Create Income-restricted Affordable Units”, “Increase Housing Growth and Diversity,” and “Reduce the Cost to Build Affordable Housing” sections are from [PSRC’s 2019 Housing Tools and Incentives Survey](#), which surveys jurisdictions about which policies they have enacted. The scale of implementation and effectiveness for each policy may vary greatly between two different jurisdictions who both have enacted a policy and is not measured in this dataset. Data in the “Protect Tenants” section is the same as that in the Measuring Impact dashboard section, and more information on it can be found in section 12.

## Glossary

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**Affordable Housing:** Housing that is affordable at 30 percent or less of a household’s monthly income. This is a general term that may include housing affordable to a wide range of income levels and includes income-restricted and non-income restricted units.

**Available Housing:** The number of units affordable at a certain AMI band, minus the number of those units occupied by households with a higher monthly income band that are “downrenting” those units.

**Affordable Housing Committee:** A committee of the King County Growth Management Planning Council chartered to recommend actions and assess regional progress to advance affordable housing solutions and function as a point of coordination and accountability for affordable housing efforts across King County.

**Area Median Income (AMI):** The midpoint income for an area, where half the people earn more than the median, and half the people earn less. The U.S. Department of Housing and Urban Development (HUD) calculates a median income for each metropolitan region and uses it to determine income limits for government affordable housing programs. In alignment with the HUD practices for CHAS data, when used without a household size qualification, AMI refers to HAMFI, which takes household sizes into account.

**Cost Burden:** When a household spends more than 30 percent of their gross monthly income on housing costs.

**Displacement:** The involuntary relocation of current residents or businesses from their current residence. This is a different phenomenon than when property owners voluntarily sell their interests to capture an increase in value. Physical displacement is the result of eviction, acquisition, rehabilitation, or demolition of property, or the expiration of covenants on rent- or income-restricted housing. Economic displacement occurs when residents and businesses can no longer afford escalating housing costs. Cultural displacement occurs when people choose to move because their neighbors and culturally related businesses have left the area.

**Extremely Low-Income Households:** Households earning 30 percent of the Area Median Income or less for their household size.

**Frequent Transit:** Transit service is frequent if transit comes regularly within the following time windows:

- Weekday peak: 15 minutes and under
- Weekday mid-day/evening: 20 minutes and under
- Weekend mid-day service: 30 minutes and under

**High-Capacity Transit:** Various types of transit systems, such as light rail and bus rapid transit, operating on fixed guideway or dedicated right-of-way designed to carry a large number of riders at higher speeds. Transit types in King County that fall into this category are RapidRide, ST Stride, Light rail, Community Transit SWIFT, Streetcar/Monorail, and Sounder.

**High-Density Housing:** Multifamily housing of a certain density that is considered to be more intensive than moderate-density housing. This designation includes housing types of 20 or more units.

**Household:** All people living in a housing unit. Members of a household can be related or unrelated.

**Housing Affordability:** Refers to the balance (or imbalance) between incomes and housing costs within a community or region. A common measurement compares the number of households in certain income categories to the number of units in the market that are affordable at 30% of gross income.

**HUD Area Median Family Income (HAMFI):** This is the median family income calculated by the U.S. Department of Housing and Urban Development (HUD) for each jurisdiction. The HAMFI for King and Snohomish Counties in 2019 was \$108,600 for a family of four. HUD further segments the HAMFI based on different household sizes and uses these more specific income limits to determine suitability for key housing programs. These benchmarks are then also used by other public housing programs.

**Incentive Zoning:** Incentive zoning is a broad regulatory framework for encouraging and stimulating development that provides a desired public benefit as established in adopted planning goals. An incentive zoning system is implemented on top of an existing base of development regulations and works by offering developers regulatory allowances in exchange for public benefits.

**Income-restricted Units:** Housing units that provide lower-income people with an affordable place to live. To be eligible to live in one of these units, a prospective tenant's gross monthly income must be below a certain income threshold.

**Inclusionary Zoning:** Inclusionary zoning stipulates that new residential development in certain zones includes some proportion or number of affordable housing units or meets some type of alternative compliance. Inclusionary zoning taps into economic gains from rising real estate values to create affordable housing for lower-income households. This mandatory approach can create more affordable housing in neighborhoods with access to transportation and quality jobs.

**Low-Income Households:** Households earning between 51 percent and 80 percent of the Area Median Income for their household size.

**Moderate-Income Households:** Households earning between 81 and 120 percent of the Area Median Income for their household size.

**Opportunity Areas:** Areas with high quality schools, jobs, transit; access to parks, open space, and clean air, water, and soil; and other key determinants of social, economic, and physical well-being.

**Severe Cost Burden:** When a household spends more than 50 percent of their gross monthly income on housing costs.

**Tenure:** The legal status by which people have the right to occupy their accommodation. Common housing tenure are renting (which includes public and private rented housing) and homeownership (which includes owned outright and mortgaged).

**Very Low-Income Households:** Households earning between 30 percent to 50 percent of the Area Median Income for their household size.

**Walkshed:** The area around a transit center, measured as half-mile radius. Used to measure the area in which walking or biking can serve as viable way to access a transit location.