Status of Fact Finding

Addendum Report

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Pathways to Housing Security

WSU EXTENSION
Division of Governmental Studies and Services

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STATUS OF FACT-FINDING OVERVIEW

For the past four years, fact finding efforts have sought to understand both trends and causes of homelessness in Washington State. These efforts have systematically examined prior research on the macro- and micro-level causes of homelessness at the national level to gain a broad understanding of the issue. In addition, these efforts have produced a detailed—Washington specific—analysis of structural conditions and their potential impact on homelessness. This report aimed to further build on this analysis by examining a combination of structural *and* individual-level factors using data provided by the Department of Social and Health Services' (DSHS) Research and Data Analysis Division (RDA) as well as the most recent data available from the Washington State Department of Commerce and the U.S. Census Bureau's American Community Survey (ACS). At the time of this report, data on individual-level factors has not been acquired.[1] Therefore, this report builds on the previous structural analysis in *Status of Fact Finding, Year 3* report.

This report further explores key determinants of homelessness identified in the previous *Status of Fact Finding, Year 3* report through the addition of more recently available data from 2022. Additionally, this report explores contributors to rising housing costs, specifically median contract rents, as median contract rent is the strongest predictor of homelessness across Washington State. As Washington State is encouraging the building of "missing middle" structures to help address housing costs (see HB1110), the analysis contained in this report examined growth in different sized living structures to examine their potential impacts. In addition, this report also examined county-level correlates of extreme rent burden—a risk factor for homelessness.

The results of this analysis indicated that the strongest predictors of homelessness across all counties in Washington State were median rent costs for one-bedroom units and the proportion of the population aged 65 or older. This pattern held true even when examining only rural counties in the state. Further, results indicated that the strongest predictors of year-over-year change in median contract rents across Washington's counties included county-level population growth, influx of mobile homes, and median income. When considering counts of newly added residential properties per county, construction of structures with 3 through 19 units predicted small decreases in the growth of median contract rents. Median income and population growth were associated with higher growth in median contract rents. Poverty, an increase in the year-over-year percentage growth of 10–19-unit structures, and an increase in the year-over-year percentage growth of mobile homes were associated with lower growth in median contract rents. When examining only Washington's rural counties, the strongest predictors were growth in median income, poverty, population change, addition of 10–19-unit structures, and mobile homes. This suggests that the construction of specific unit types may be more effective at slowing rental housing costs depending on the characteristics of the county (urban versus rural). In all counties, growth in population was associated with higher costs, while increases in poverty were associated with lower housing

[1] More information on data access is included in the Conclusions and Recommendations section of this report.

costs. Finally, analyses indicated that extreme levels of rent burden were driven by increased county-level poverty and median contract rent prices. To a lesser degree, the construction of new housing units, particularly duplexes and smaller 5–9-unit structures, were associated with reduced levels of extreme rent burden within counties.

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INTRODUCTION

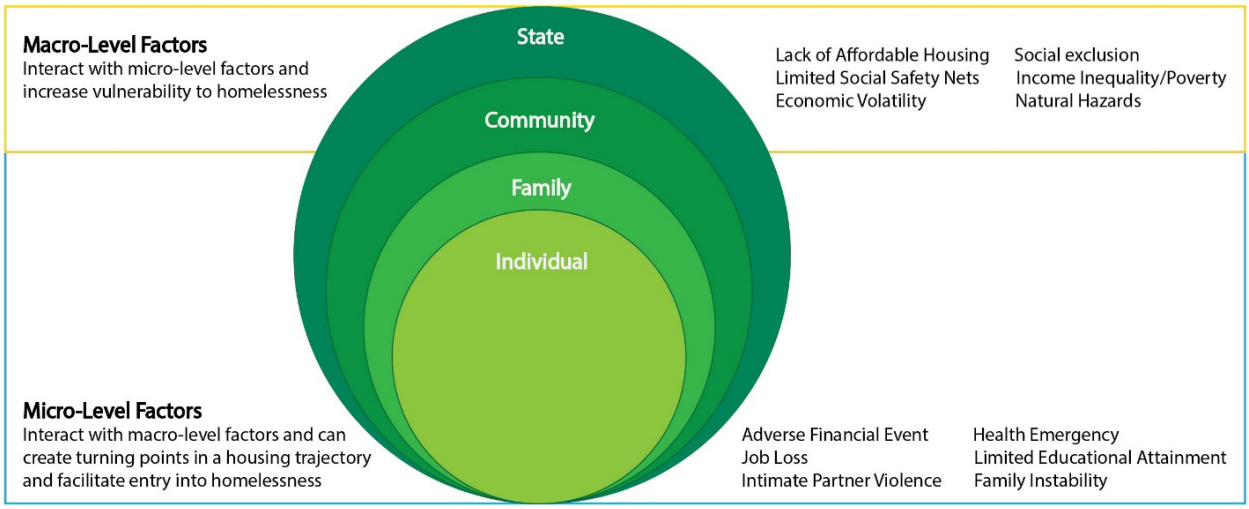
For the past decade, the United States has been grappling with an increase of people experiencing homelessness (National Alliance to End Homelessness [NAEH], 2023). According to the United States Department of Housing and Urban Development, Washington State experienced a 19% increase in total homelessness between 2007 to 2023, the third largest increase in the nation. For 2024, Washington's population grew at rates slower than the national rates, but the number of people experiencing homelessness increased 12.5% from 2023 (Santos, 2025). Understanding the structural factors associated with homelessness provides a glance into the conditions in which these trends emerge.

The last report submitted to the legislature by WSU's Division of Governmental Studies and Services (DGSS) evaluated numerous key factors suggested in the homelessness literature and identified a handful of factors that explain homelessness in Washington State specifically. As housing costs continue to be the major predictor of homelessness across the state, this report examined factors that impacted housing costs and cost burden across the state.

The Macro-Micro Framework Revisited

The Macro-Micro framework of homelessness (first articulated by Lee et al., 2021) is illustrated in Figure 1 below. Variables at the state and community level are commonly deemed structural determinants of homelessness (i.e. macro-level predictors). Variables at the family and individual level are considered micro-level predictors because they highlight the unique pathways to homelessness that households or individuals may experience. The central claim of this framework is that common household challenges (e.g. substance abuse, mental health, unemployment, household dissolution, and medical emergencies) may lead to homelessness, but the extent of that risk depends on the broader structural context. For example, there is greater risk for homelessness in communities with limited affordable housing stock, high rents, high demand for housing, widespread rent burden, and few health care options (Byrne et al, 2012; 2021). Households facing these challenges may be insulated from homelessness under different structural conditions (i.e. in communities with a wider spectrum of rental options, lower housing demand, and greater mental health expenditures). Studying these interactions requires both macroeconomic data about communities, as well as household or individual level data. Due to data limitations discussed in later sections, this report focused on structural predictors of homelessness in Washington State.

Figure 1: Macro-Micro Framework



STRUCTURAL ANALYSIS OF HOMELESSNESS IN WASHINGTON

This addendum report focuses on the structural or macro-level causes of homelessness in Washington State. To identify the factors to be used in multivariate analysis, common causes of homelessness identified in prior literature (Byrne et al., 2012; Byrne et al., 2021; Lee et al., 2003) and significant predictors identified in the *Status of Fact Finding, Year 3* report were included. Additionally, potential factors identified by Washington's Senate Housing Committee Work Session in 2023 were explored. Table 1 provides the list of factors that were investigated by the research team to prepare this addendum report.

Table 1: Variables Collected for Analysis

Variable[2]	Definition	Source
Homelessness Rate[3]	Persons Experiencing Homelessness Per 10,000 Population	Washington State Department of Commerce
Rent	Median Gross Rent (rent and utilities) 1 Bedroom Median Contract Rent (rent and no utilities)	ACS 5-Year Estimates
Low-Income Household Rent Burden	% Of Households making less than $20,000 per year paying more than 34.9% of income on Rent	ACS 5-Year Estimates
Home Value	Median Home Value	ACS 5-Year Estimates
Income	Median Household Income	ACS 5-Year Estimates
Homeownership	% Owner-Occupied Units	ACS 5-Year Estimates
Vacancy Rates	% Vacant Housing Units	ACS 5-Year Estimates
Unemployment Rate	% Civilian Labor Force Unemployed	ACS 5-Year Estimates
Poverty Rate	% Persons with Incomes Below 50% of Poverty Level	ACS 5-Year Estimates
Real Estate Taxes	Count of occupied housing units by real estate taxes paid	ACS 5-Year Estimates
Median Real Estate Taxes	Median Real Estate Taxes Paid	ACS 5-Year Estimates
Divorce Rates	Persons Divorced Per County Population	ACS 5-Year Estimates
% Black	% Black in Total Population	ACS 5-Year Estimates
% Hispanic	% Hispanic in Total Population	ACS 5-Year Estimates
% Population 65+	% Persons 65 and Over in Population	ACS 5-Year Estimates
1-person households	% Occupied housing units with single occupant	ACS 5-Year Estimates
Public Assistance	% Households Receiving Public Assistance	ACS 5-Year Estimates
Social Security Benefits	% Persons Receiving Social Security Benefits	ACS 5-Year Estimates
Income Inequality	Gini Coefficient	ACS 5-Year Estimates
Mobility Rate	% Moved in Past Year from Different County, State, or Country	ACS 5-Year Estimates

Key Trends

As stated, the factors that impact homelessness both at the national level and across Washington State are numerous. In this section, key trends for select factors are explored from 2013 to 2023 at the state and county level. As the analysis conducted in the 2023 report indicated, median rent for one-bedroom apartments was the most significant predictor of homelessness rates. Therefore, indicators of housing costs are the focus of this section.

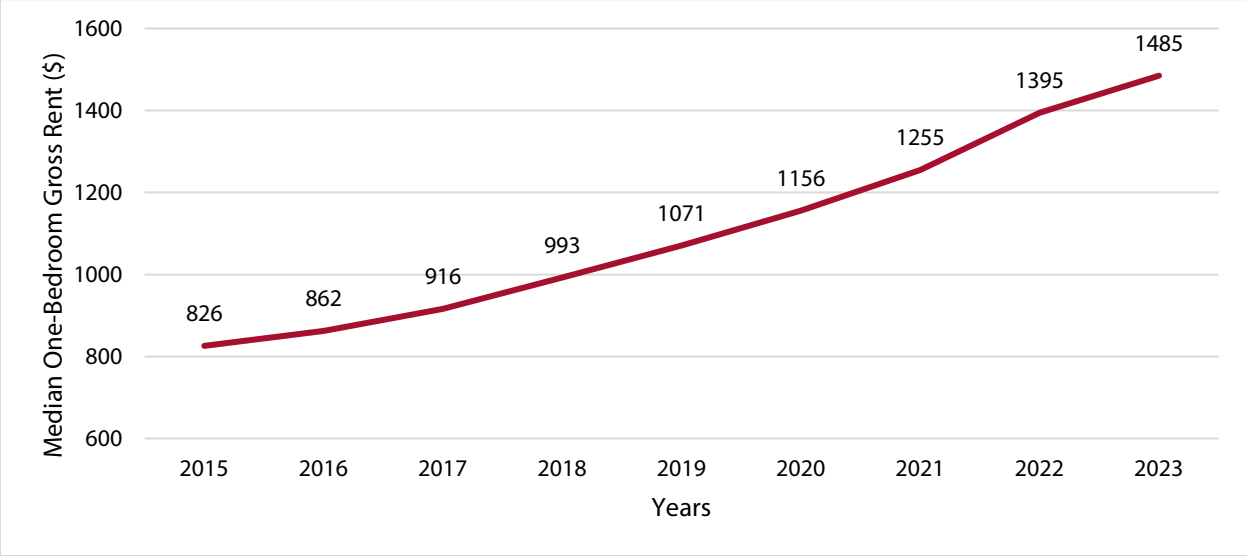
[2] For counties with combined Point in Time (PIT) counts, percentages are calculated by adding together individuals and dividing by combined populations (Poverty Rate, % Black, % Hispanic, Baby Boomers, Public Assistance, Social Security Benefits, and Mobility Rate). For all median variables and Income Inequality, an average of the two county measures was used.

[3] To measure homelessness, PIT counts were collected for all Washington counties from 2013 through 2023 from the Washington State Department of Commerce. The number of individuals experiencing homelessness in the county per 10,000 population was calculated for each year. Like in prior analyses, Douglas and Chelan and Benton and Franklin PIT count estimates are combined for most years, in keeping with the state's data collection methods. Thus, there are 37 counties or combined counties per year rather than 39.

Median Rent

Median gross rent (i.e., combined cost of rent and utilities) for one-bedroom apartments in the state has continually increased from 2015 to 2023. Median one-bedroom gross rent increased nearly 80%, from a low of $826 in 2015 to $1485 in 2023.

Figure 2: Median One-Bedroom Gross Rent in Washington



Median contract rent (e.g., rent cost, excluding utilities) for all units in the state, regardless of size, also increased from 2015 to 2023. In 2013, the median contract rent in the state was $853 and this increased to $1,524 in 2023, a 78.7% increase (see Figure 3).

Figure 3: Median Contract Rent in Washington

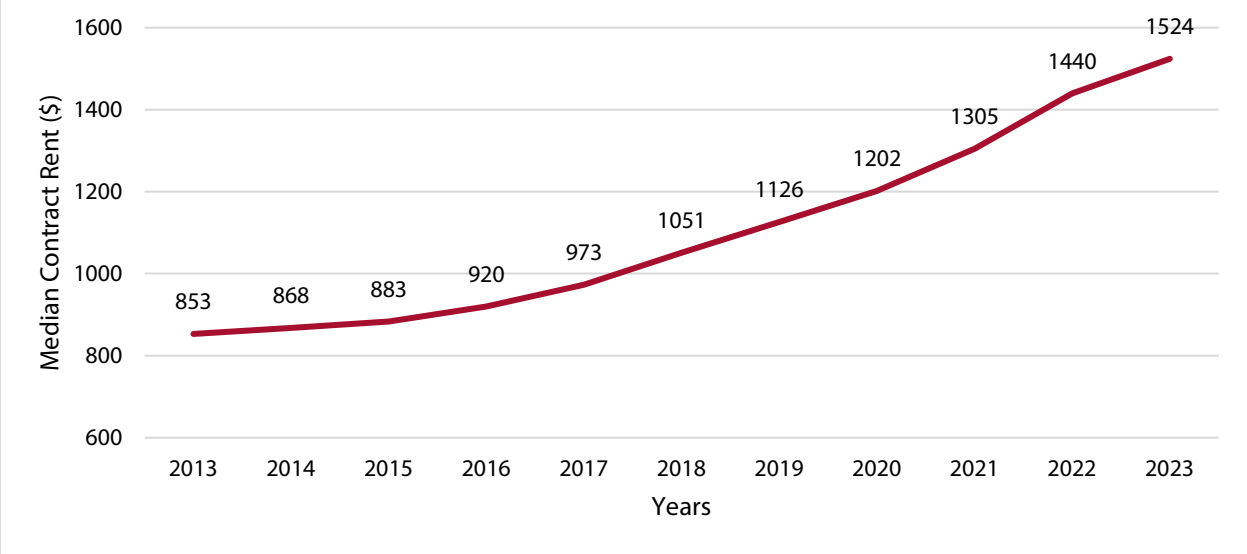
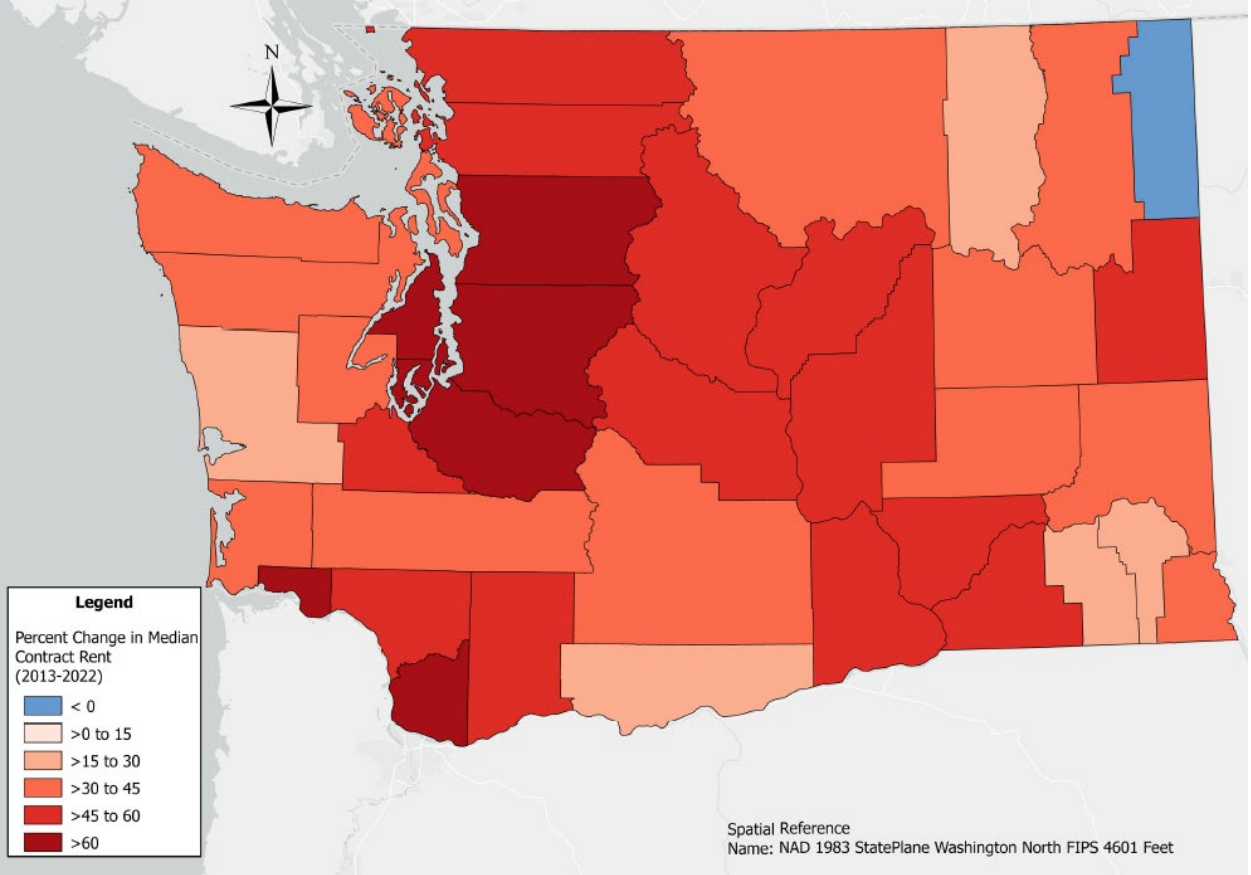


Figure 4 displays percentage change in median contract rent by county from 2013 to 2022. All counties except Pend Oreille (-8%) experienced increases in median rents. The smallest increases were seen in Garfield (20%), Klickitat (23%), Columbia (24%), and Ferry (27%) Counties. Over these nine years, most counties experienced near average increases (46%). Counties with the largest increases were Pierce (65%), Kitsap (65%), Clark (74%), Snohomish (75%), King (81%), and Wahkiakum (82%).

Figure 4: Percent Change in Median Contract Rent by County, 2013 to 2022



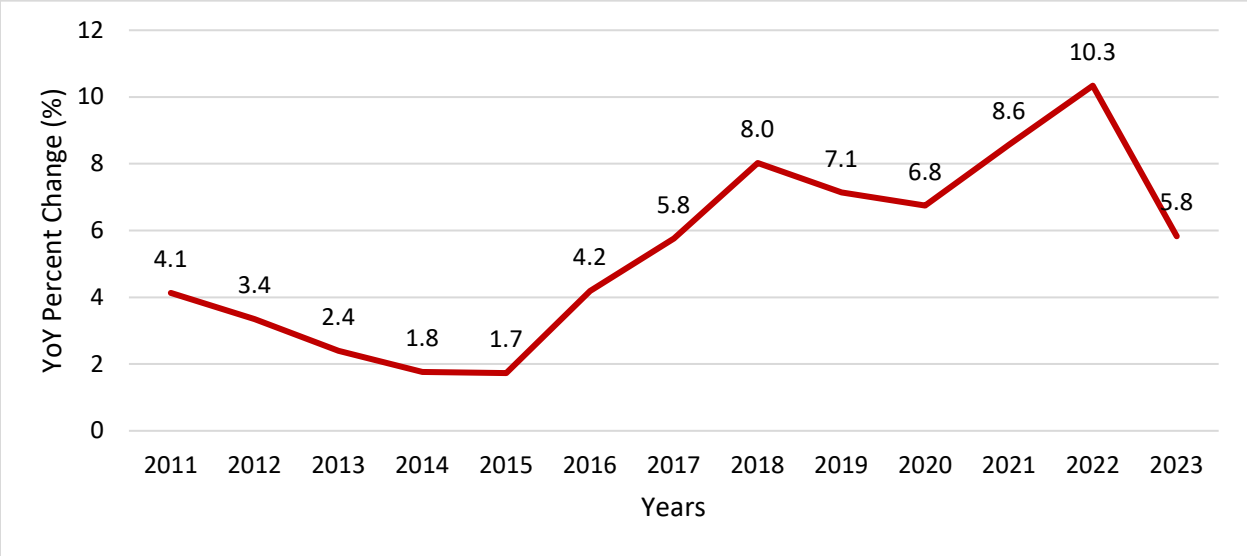
Data Sources: U.S. Census Bureau; American Community Survey
Shapefile Sources: U.S. Census Bureau

Rent Growth

Rent prices historically trend upward, while downward price shifts are rare and caused by significant shocks. Because prior models from the *Status of Fact Finding, Year 3* report found that increased median contract rent was a primary predictor of homelessness, the rate at which rents change was also examined in the present study. To be precise, the team calculated the year-over-year (YoY) percent change in median contract rents for every county and for the statewide median. Figure 5 shows the YoY percent change in statewide median contract rents. Much like how inflation rates capture YoY percent changes in prices for all goods and services (including the cost of housing), this rent growth rate behaves similarly.

Rent prices can only be said to "drop" when this rent growth rate falls below zero. Median contract rent was growing slowly (and the growth rate decreasing) until 2015. However, prices rose sharply for the periods between 2016-2018 and 2020-2022.

Figure 5: Statewide YoY Median Contract Rent Growth Rate, 2011 to 2023



Rent Burden

When housing costs exceed 30-35% of a household's monthly income (whether renting or owning), the household is considered rent burdened. If housing costs increase faster than income over time, a larger share of households become cost burdened. Housing cost burden is a significant predictor of entry into homelessness, particularly for those who rent (Byrne et al., 2021; Shinn & Khadduri, 2020). Low-income households are especially vulnerable to housing cost increases, as incomes do not increase equally across all income levels (See Byrne et al. 2021). In previous reports, rent burden was analyzed by calculating the percentage of low-income households (those households earning under $20,000) that allocate more than 34.9% of their income to rent. Though the share of low-income households that are rent-burdened has dropped nearly five percentage points from 2013 to 2023, three quarters of low-income households in Washington remain rent-burdened (see Figure 6).

Figure 6: Percent of Rent-Burdened Low-Income Households

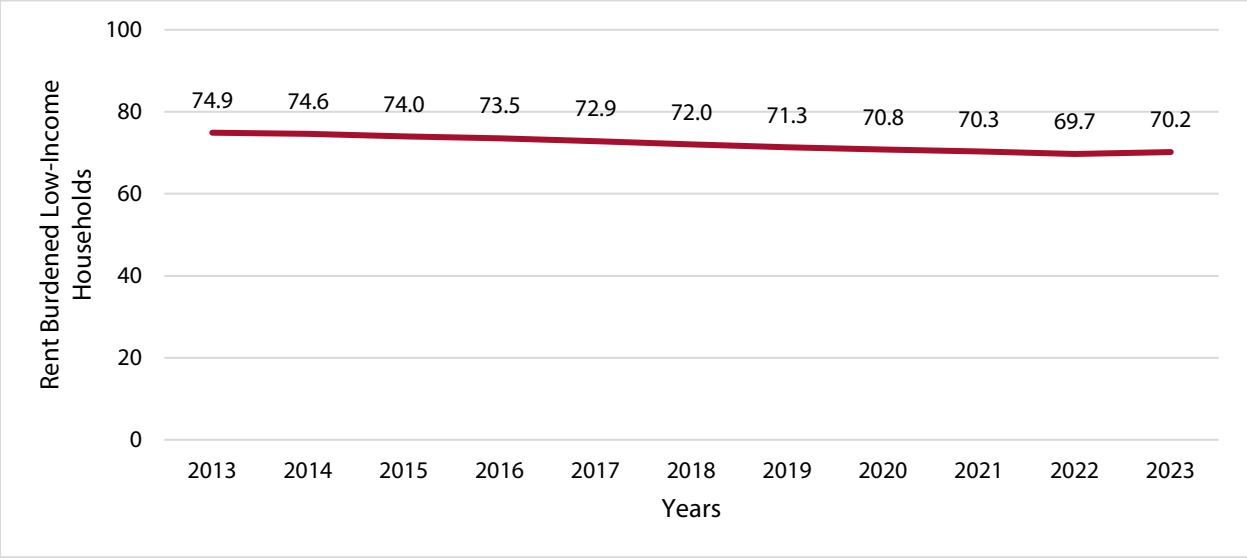
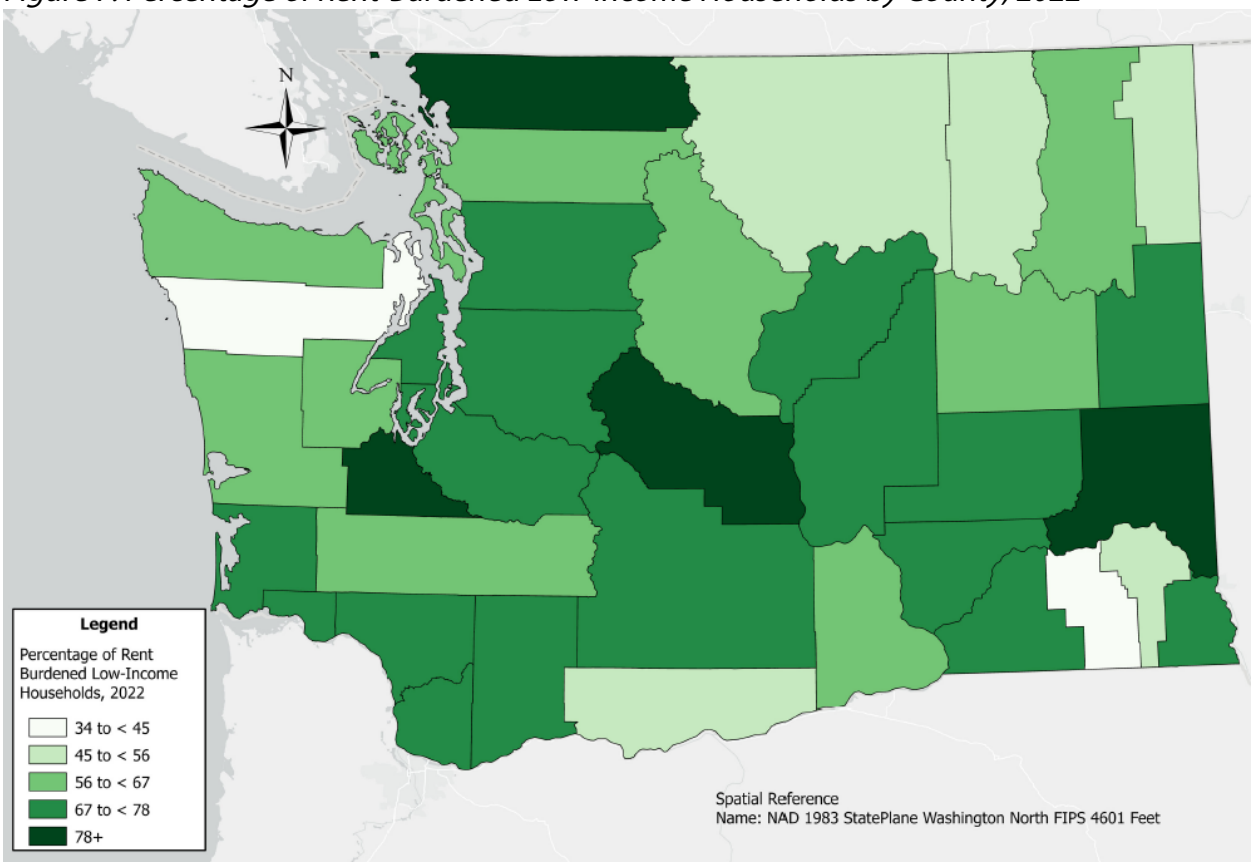


Figure 7 displays the percentage of rent-burdened low-income households across Washington by county. Jefferson (35%), Columbia (45%), Pend Oreille (46%), Klickitat (49%), and Ferry (53%) Counties had the lowest percentages of rent-burdened low-income households. In all other counties, over half of low-income households are rent-burdened. Counties with the highest percentage of low-income households that are rent burned are Whitman (82%), Kittitas (80%), Whatcom (80%), and Thurston (79%).

Figure 7: Percentage of Rent-Burdened Low-Income Households by County, 2022



Data Sources: U.S. Census Bureau; American Community Survey
Shapefile Sources: U.S. Census Bureau

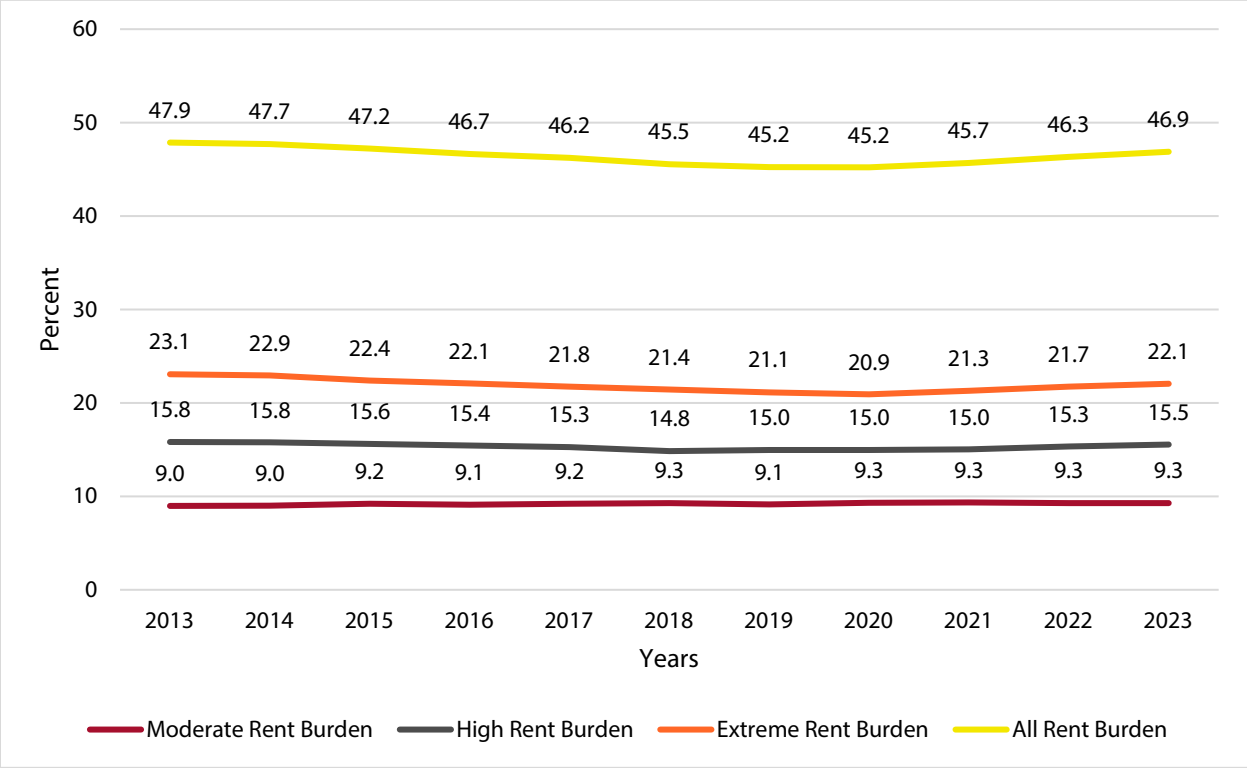
Level of Rent Burden

To further understand household rent burden trends across the state of Washington, the severity of rent burden is examined by focusing on three levels of rent-burden: moderate rent burden, high rent burden, and extreme rent burden. Households experiencing moderate rent burden spent 30% to 34.9% of their monthly income on rent, highly rent-burdened households spent 35% to 49% of their monthly income on rent, and extremely rent-burdened households spent 50 percent or more of their monthly income on rent.

As can be seen in Figure 8, the percentage of households experiencing moderate rent burden, high rent burden, and extreme rent burden has remained relatively stable from 2013 to 2023. The percentage of households experiencing moderate rent burden has been slightly less than 10% over time. From 2019 to 2020, the percentage increased to 9.3% and has remained at this level since. The percentage of highly rent-burdened households has been approximately 15-16% for the last decade with some small fluctuation across years. From 2021 to 2023, the percentage of households highly rent-burdened slightly increased from 15 to 15.5%, but this is still lower than in 2013. Just over 20% of households in Washington are extremely rent-burdened. While this has fluctuated from 2013 to 2023, overall, the changes have been minimal. The percentage of extremely rent-burdened households began

increasing from 2020 (20.9%) to 2023 (22.1%). When examining the percentages across all levels of rent burden, half of households in Washington State have consistently experienced rent burden from 2013 to 2023.

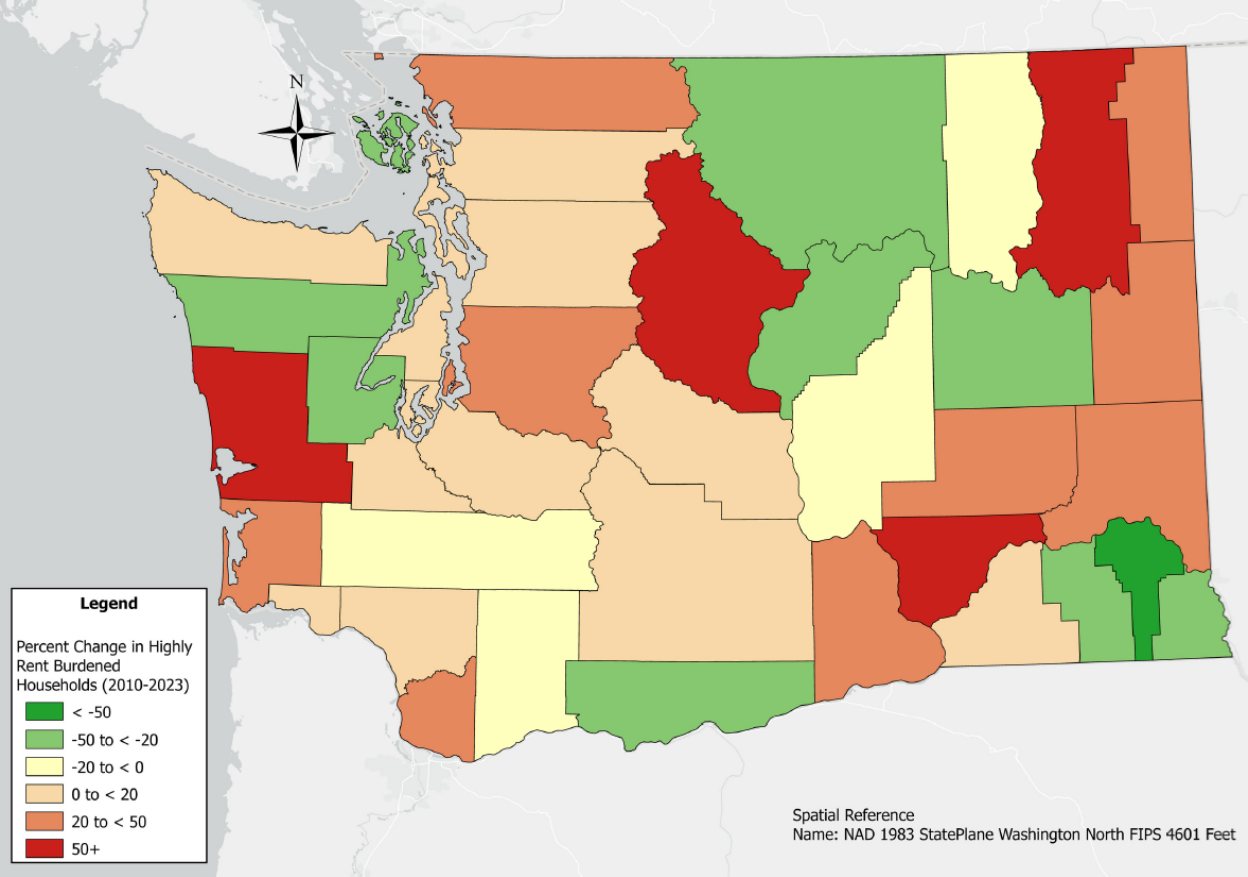
Figure 8: Percent of Rent-Burdened Households



High Rent Burden by County

Highly rent-burdened households are those spending between 35% to 49% of their monthly income on housing. From 2010 through 2023, most counties in Washington State experienced increases in the percentages of households that were highly rent burdened. In 2023, over 15% of all households in Washington State were experiencing high rent burden; Walla Walla County had the highest proportion at 19%. Figure 9 shows the change by county in high rent burden from 2010 to 2023, indicating that while most counties saw increases in these types of households (with Chelan County seeing the greatest growth at 119%), some counties have seen highly rent-burdened households decrease (with Garfield County seeing the greatest decrease of -64%). Notably, some of the most rural counties in the state have seen the greatest swings in either direction, with all urban counties seeing a rise in highly rent-burdened households.

Figure 9: Percent Change in Highly Rent-Burdened Households by County, 2010 to 2023

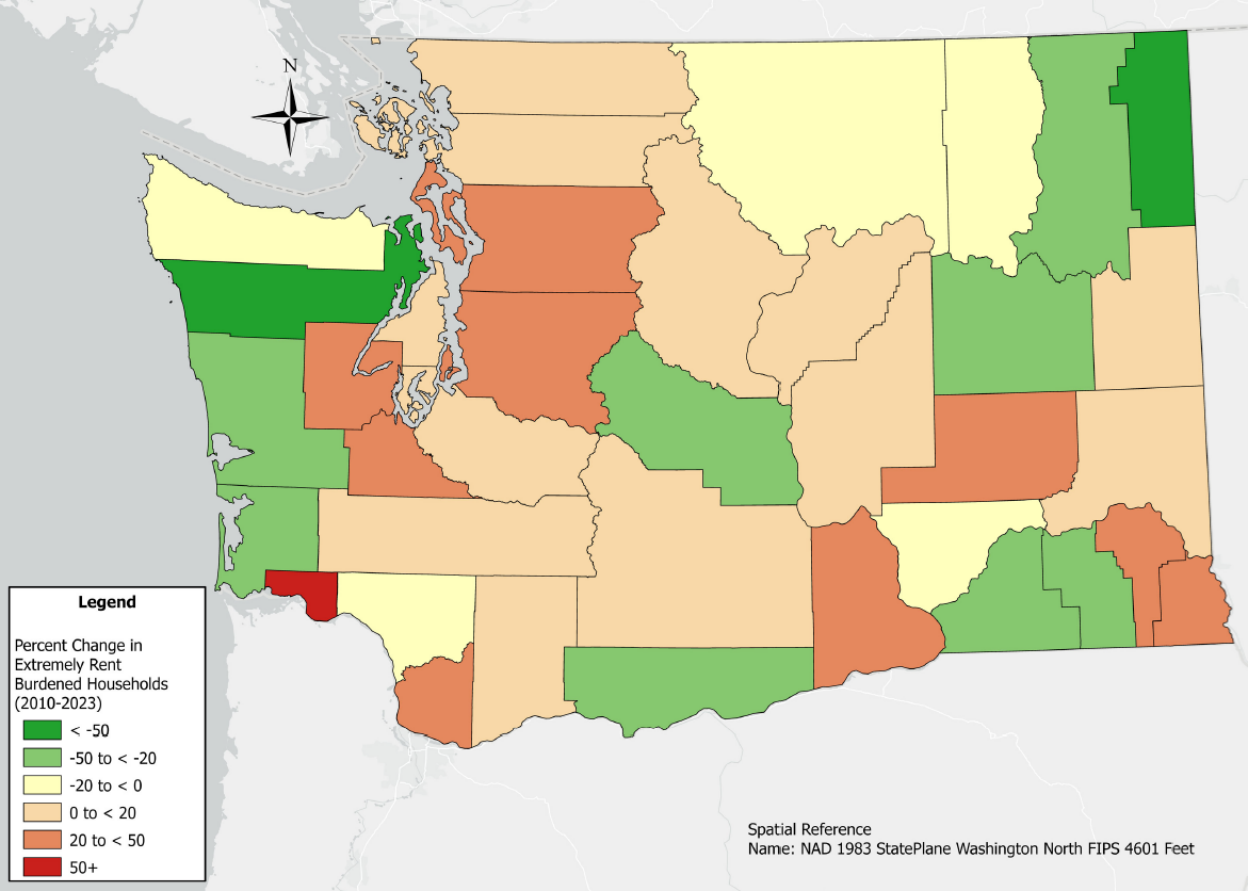


Data Sources: Washington State Department of Commerce
Shapefile Sources: U.S. Census Bureau

Extreme Rent Burden by County

Most counties saw significant increases in the percentage of households spending over 50% of their monthly income on rent from 2010 to 2023. Whitman County had the highest proportion of households with extreme rent burden at 37%. Figure 10 shows the percentage changes in extreme rent burden per county from 2010 to 2023. While highly populated counties in the state experienced large increases in extreme rent burden, several rural counties also saw large increases, indicating that these upward trends are not concentrated to one part of the state. As with high rent burden, rural counties saw the greatest swings of extreme rent burden in either direction, with all urban counties seeing a rise.

Figure 10: Percent Change in Extremely Rent-Burdened Households by County, 2010 to 2023

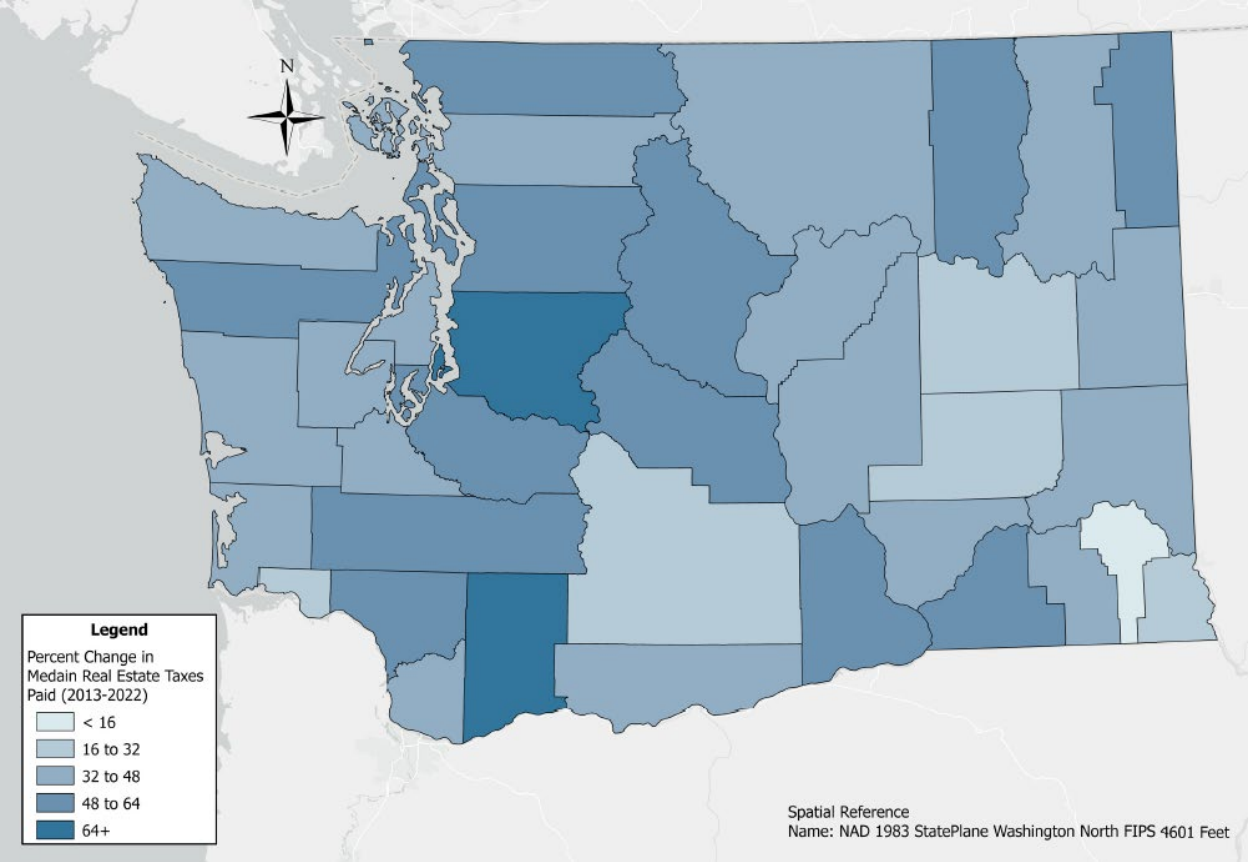


Data Sources: Washington State Department of Commerce
Shapefile Sources: U.S. Census Bureau

Median Real Estate Taxes

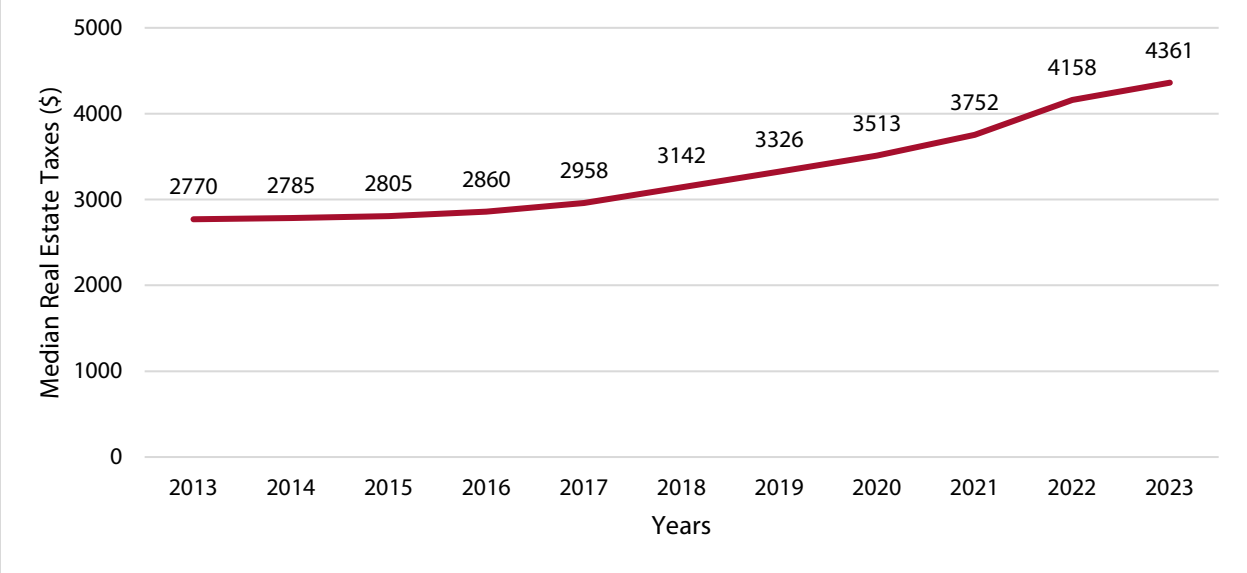
To get a better sense of how the real estate market can impact households, median real estate taxes paid per year per county were estimated. As can be seen in Figure 11, all counties experienced increases, with the largest effects in western Washington. At the statewide level, median real estate taxes increased 50% between 2013 and 2022 (see Figure 12).

Figure 11: Percent Change in Median Paid Real Estate Taxes by County, 2012-2022



Data Sources: U.S. Census Bureau; American Community Survey
Shapefile Sources: U.S. Census Bureau

Figure 12: Median Statewide Real Estate Taxes Paid



Summary of Key Trends

The key housing market factors identified in the *Status of Fact Finding, Year 3* report continue to trend upward, exhibiting a housing market that is putting pressure on a significant percentage of Washington households. Additionally, because these variables were positively related to homelessness rates, their continued rise signals potential concern. County-level analysis of median rent and cost burden reveals substantial variation, illustrating that housing market pressures are not distributed equally across the state. While urban counties often receive the most attention for housing and homelessness issues, these trends reveal that several rural counties are also experiencing concerning increases in costs and rent burden, increasing their residents' potential risk for homelessness.

STRUCTURAL PREDICTORS OF HOMELESSNESS

To examine key structural predictors of homelessness in Washington State, multivariate regression models were estimated using the most recent available data. In doing so, these analyses built upon and extended the findings produced in the *Status of Fact Finding, Year 3* report with the most recently available data. To allow for the possibility that structural correlates of homelessness may differ in rural areas, separate models were estimated within the subset of Washington's rural counties. These analyses focused on data from 2016 through 2022, with the exception that data from 2021 were excluded due to the impact of the COVID-19 pandemic on homelessness counts. The overall analytic strategy for these regression models remained the same as that presented in the *Status of Fact Finding, Year 3* report .

As explained in the previous report, due to the limited number of observations, only a handful of predictors can be considered simultaneously. The research team replicated the model used in the 2023 report as it was the best model for predicting homelessness rates. The state-wide ordinary least squares (OLS) regression model presented in Table 2 estimated the effect each structural variable had on the rate of homelessness per 10,000 individuals in the population. All independent variables were lagged, predicting effects the following year. Like the 2023 results, median one bedroom rent costs were the strongest predictor of homelessness. On average, a one unit increase in median rent (e.g., $100 increase) led to an increase of approximately 3.18 persons experiencing homelessness per 10,000 individuals. The percentage of the population 65 and older was also positively correlated with homelessness. A one percentage point increase in this population led to an increase in the rate of homelessness by .83 persons per 10,000 individuals in the population. Single person households were also positively associated with homelessness. A one percentage point increase in the single person households led to an increase in the rate of homelessness by .88 persons per 10,000 individuals in the population. Lastly, a 1% increase in the number of rent-burdened, low-income households predicted .29 extra persons experiencing homelessness (or 1 extra person for every 4% increase).

When isolating rural counties (see Table 3), the percentage of the population 65 or over and median rent for a one-bedroom unit were the strongest predictors of homelessness. When the percentage of the population 65 and older increased one percentage point, the rate of

homelessness increased by .85 persons per 10,000 individuals in the population. A one unit increase in median rent (i.e., $100 increase) led to an increase of approximately 3.4 persons experiencing homelessness per 10,000 individuals. In contrast to all counties, single person households were not a significant predictor of homelessness for rural counties.

Table 2: Relationship between County-Level Characteristics and Homelessness, 2016-2022

	Coefficient	Beta	Robust S.E.	p-value	95% Confidence Interval	
Population 50% Below Poverty	-0.775	-0.139	0.529	0.145	-1.515	-0.034
Median Rent, One-Bedroom (in $100)	**3.184****	0.475	1.036	0.002	2.222	4.146
Single Person Households	**0.882***	0.212	0.376	0.020	0.358	1.406
Population Aged 65 Plus	**0.829****	0.382	0.233	<0.001	0.501	1.156
Rent-Burdened Low-Income Population	**0.297***	0.210	0.135	0.029	0.127	0.468
Year 2017	**-4.989***	-0.369	1.944	0.011	-9.995	0.017
Year 2018	**-3.994***	-0.296	1.969	0.044	-9.044	1.057
Year 2019	-4.448	-0.329	2.284	0.053	-9.584	0.687
Year 2020	**-6.157***	-0.456	2.875	0.033	-11.405	-0.909
Year 2022	**-8.864***	-0.656	3.399	0.010	-14.472	-3.256
Constant	**-50.323****	0.356	15.082	0.001	-68.449	-32.197
Adjusted R-squared	0.379		Number of Obs.	219		

***** p<.01, * p<.05***

Note: Table reports robust standard errors, clustered at the county level.

Table 3: Relationship between Rural County Characteristics and Homelessness, 2016-2022

	Coefficient	Beta	Robust S.E.	p-value	95% Confidence Interval	
Population 50% Below Poverty	-0.888	-0.171	0.459	0.055	-1.681	-0.096
Median Rent, One-Bedroom (in $100)	**3.403****	0.321	1.211	0.006	1.836	4.969
Single Person Households	0.445	0.114	0.302	0.143	-0.132	1.022
Population Aged 65 Plus	**0.852****	0.397	0.251	<0.001	0.488	1.214
Rent-Burdened Low-Income Population	**0.283***	0.211	0.134	0.037	0.094	0.472
Year 2017	**-6.114***	-0.454	2.556	0.018	-11.924	-0.303
Year 2018	**-5.177***	-0.384	2.495	0.040	-11.026	0.672
Year 2019	-4.976	-0.369	2.772	0.075	-10.918	0.965
Year 2020	**-7.296***	-0.541	3.414	0.034	-13.347	-1.245
Year 2022	**-9.991****	-0.741	3.686	0.007	-16.490	-3.491
Constant	**-37.241****	0.422	13.040	0.005	-56.757	-17.725
Adjusted R-squared	0.352		Number of Obs.	171		

***** p<.01, * p<.05***

Note: Table reports robust standard errors, clustered at the county level.

EXAMINING INCREASING HOUSING COSTS AND EXTREME RENT BURDEN

Because housing costs and rent burden were significant predictors of homelessness, the factors that predict median contract rent changes and extreme rent burden were also examined. This analysis focuses on housing supply and specifically how the type of units being developed impacts median rents and cost burden. In 2023, the Washington State legislature passed HB1110 in response to housing affordability and supply concerns. The bill updates the state's Growth Management Act, directing cities to include "missing middle housing types" in their development plans. It also requires a minimum number of units designated for "affordable housing," depending on population count and transit infrastructure (Washington State Department of Commerce, n.d.; Municipal Research and Services Center, 2025) "Missing middle housing" is defined as:

> buildings that are compatible in scale, form, and character with single-family houses and contain two or more attached, stacked, or clustered homes including duplexes, triplexes, fourplexes, fiveplexes, sixplexes, townhouses, stacked flats, courtyard apartments, and cottage housing. (Growth Management Act—Minimum Development Densities in Residential Zones, 2023)

"Missing middle" units are considered more affordable *by design* because offering units with different floor-area-ratios (FARs) allows developers to rent at different price points. When construction aims for simple structures that leverage economies of scale, development costs are kept at a minimum. In other words, missing middle allows a large influx of housing units to be built affordably and rented quickly (see Marantz & Wegman, 2024). In place of standardized floor plans, flexible FAR regulations for missing middle types allow developers to build units of different sizes to be rented at a wider variety of price points. Allowing developers to determine structure shape also benefits walkability and allow residents to use the land for recreational purposes (Parolek, 2015).

Literature on missing middle housing is still emerging. Prior work has noted positive impacts on employment rates and units available for rent, reduced number of vacancies and demand for public assistance income, and younger households seem to benefit considerably more (Frederick, 2022). Portland, Oregon's "Residential Infill Project" managed to introduce more housing units at lower rental prices without displacing locals due to the allowance of smaller FARs. New Zealand's authorization of middle housing resulted in a 4% stock increase from 2016 through the beginning of 2022 in their designated test city, Auckland. In that same time, Auckland rents increased by 11%, while the rest of the country experienced increases between 41% and 45% (Marantz & Wegmann, 2024).

As "Missing Middle" housing is defined based on more than the number of units per structure, including factors such as number of stories, neighborhood characteristics, and accessibility, this analysis could not directly assess the impact of this housing type on housing costs due to data limitations. Instead, this section analyzes whether the construction of different housing structures and other factors predict changes to local rents and the proportion of households

that are extremely rent-burdened. To do this, year-over-year percentage changes were calculated for each of the variables at the county level.[4] This approach allows an analysis of whether growth in some factors, such as 3–4-unit structures or median income correspond to changes in rental price growth the following year. By examining these trends across Washington counties, whether increases in specific housing types are associated with slower rent growth can be identified. Table 4 describes the data used for this analysis of all Washington State counties from 2010 through 2023.

Table 4: Variables Used in YoY Median Contract Rent County Change Analysis

Variable*	Definition
% Extremely Rent-Burdened Households	% households in a county that spend 50%+ of monthly income on housing
Single Detached Homes	Year over Year (YoY) % change in single detached housing units
Single Attached Units	YoY % change in single attached housing units
Duplexes	YoY % change in duplexes
3-4 Unit Structures	YoY % change in structures with 3 to 4 housing units
5-9 Unit Structures	YoY % change in structures with 5 to 9 housing units
10-19 Unit Structures	YoY % change in structures with 10 to 19 housing units
20-49 Unit Structures	YoY % change in structures with 20 to 49 housing units
50+ Unit Structures	YoY % change in structures with over 50 housing units
Mobile Homes	YoY % change in the number of mobile homes
Miscellaneous Housing Types	YoY % change in the number of boats, RVs and vans
Population Change	YoY % change in the population
Rent	YoY % change in median contract rents (no utilities)
County Median Income	YoY % change in county-level median incomes

*All data from ACS 5-Year Estimates

As new housing construction takes time to impact rental costs, the predictors were lagged to predict changes in the outcome of interest (housing costs and cost burden) for the following year. The year-over-year (YoY) percent change in each type of structure refers to either added structures (percent increases relative to the previous year) or structures lost (percent decreases relative to the previous year).[5]

Table 5 reports the OLS regression model examining factors impacting growth in rental prices for all counties. Percent changes in a county's population, YoY change in mobile homes, poverty, and median income were the strongest predictors of rent growth changes. A one percentage point increase in year-over-year population growth was associated with a 0.659 percentage point increase in year-over-year median contract rent growth. In contrast, a one percentage point increase in year-over-year mobile home structures was associated with a 0.09 percentage point reduction in year-over-year median contract rent growth. Similarly, year-over-year changes in 3–4-unit structures, 5–9-unit structures, and 10–19-unit structures were associated with lower rent growth. Likewise, increases in year-over-year poverty rates were associated with lower rent growth. It was observed that, on average, a one percentage

[4] YoY % Change = ((Current Value – Previous Value)/Previous Value) *100

[5] The research team focused on producing the most robust model using a stepwise process while avoiding multicollinearity and minimizing heteroskedasticity.

point increase in median incomes was associated with a 0.14 percentage point decrease in the rent growth rate. This runs counter to the literature on the effects of local incomes on rents, suggesting the coefficient may be capturing a few dynamics at once:

- An income mismatch between renters and owners, where owners may be the main beneficiaries of median income changes.
- Greater income growth may be concentrated in the more affordable (generally rural) counties, while the unaffordable (generally urban) counties are already at the top of the income spectrum where percentage increases are smaller.

Table 5: Relationship between County Characteristics and YoY Change in Median Contract Rents, 2012-2023

	Coefficient	Beta	Robust S.E.	p-value	95% Confidence Interval	
YoY Population 50% Below Poverty	**-0.043****	-0.12938	0.01455	0.003	- 0.072	- 0.015
Vacancy Rates	-0.030	-0.07392	0.01821	0.071	- 0.068	0.002
YoY Population change	**0.659****	0.14816	0.19743	0.001	0.271	1.047
YoY County Median Income	**-0.142***	-0.12151	0.06879	0.039	- 0.277	- 0.007
YoY Single Detached Homes	-0.200	-0.08777	0.12964	0.123	- 0.454	0.054
YoY Single Attached Units	-0.007	-0.06132	0.00487	0.126	- 0.013	- 0.001
YoY Duplexes	-0.010	-0.06403	0.00482	0.069	- 0.024	0.002
YoY 3-4 Unit Structures	**-0.020***	-0.10394	0.00588	0.042	- 0.031	- 0.008
YoY 5-9 Unit Structures	**-0.017***	-0.09738	0.00776	0.026	- 0.032	- 0.002
YoY 10-19 Unit Structures	**-0.026****	-0.11653	0.00950	0.006	0.044	- 0.007
YoY 20-49 Unit Structures	-0.010	-0.04860	0.00932	0.259	- 0.028	0.007
YoY 50+ Unit Structures	-0.010	-0.06990	0.00621	0.094	- 0.022	0.001
YoY Mobile homes	**-0.093****	-0.13464	0.03369	0.006	- 0.159	- 0.027
YoY Misc. Housing Types	-0.000	-0.01394	0.00093	0.736	- 0.002	0.001
Year 2013	0.920	0.21174	0.86243	0.287	- 0.775	2.615
Year 2014	-0.951	-0.21893	0.85762	0.263	-2.636	0.734
Year 2015	-1.312	-0.30216	0.85824	0.127	-2.997	0.374
Year 2016	-0.474	-0.10929	0.86200	0.582	-2.170	1.221
Year 2017	0.210	0.04463	0.86323	0.805	-1.480	1.900
Year 2018	1.127	0.25944	0.86223	0.192	- 0.567	2.822
Year 2019	0.886	0.20403	0.85128	0.299	- 0.786	2.559
Year 2020	0.393	0.09045	0.84083	0.641	-1.259	2.045
Year 2021	**2.846****	0.65481	0.84935	0.001	1.169	4.523
Year 2022	**7.035****	1.61293	0.94540	<0.001	5.202	8.868
Year 2023	**3.915****	0.90116	0.95944	<0.001	2.209	5.801
Constant	3.928***		0.913	<0.001	2.420	5.436
Adjusted R-squared	0.3164		Number of Obs.	452		

***** p<.01, * p<.05,***
Note: Table reports robust standard errors, clustered at the county level.

Table 6 reports the OLS regression model that examined key factors explaining YoY change in median contract rents for rural counties only. The rural-only model identified the same predictors, except for 5-to-9-unit structures, single attached units, and duplexes. The strongest predictors of year-over-year median contract rent changes were county median income, poverty, population change, 10–19-unit structures, and mobile homes. For instance, when the number of 10–19-unit structures increased by 1% the model predicted a .02 percentage point decrease in year-over-year median contract rent growth the following year.

Single attached units, duplexes, 3–4-unit structures, and mobile homes also decelerated year-over-year median contract rent changes.

Table 6: Relationship between Rural County Characteristics and YoY Change in Median Contract Rents, 2012-2023

	Coefficient	Beta	Robust S.E.	p-value	95% Confidence Interval	
YoY Population 50% Below Poverty	**-0.044****	-0.13672	0.01637	0.008	- 0.076	- 0.011
Vacancy Rates	-0.020	-0.04212	0.02285	0.371	- 0.065	0.024
YoY Population change	**0.600****	0.13370	0.23014	0.010	0.147	1.052
YoY County Median Income	**-0.174***	-0.14606	0.07793	0.026	- 0.327	- 0.020
YoY Single Detached Homes	-0.151	-0.06952	0.11024	0.170	- 0.446	0.142
YoY Single Attached Units	**-0.006****	-0.10094	0.00406	0.036	- 0.013	- 0.000
YoY Duplexes	**-0.010** *	-0.10047	0.00385	0.043	- 0.026	0.004
YoY 3-4 Unit Structures	**-0.019***	-0.08893	0.00408	0.024	- 0.032	- 0.007
YoY 5-9 Unit Structures	-0.016	-0.09815	0.00867	0.060	- 0.033	0.000
YoY 10-19 Unit Structures	**-0.027****	-0.12864	0.01065	0.011	- 0.048	- 0.006
YoY 20-49 Unit Structures	-0.011	-0.05464	0.01018	0.277	- 0.031	0.008
YoY 50+ Unit Structures	-0.010	-0.07437	0.00692	0.133	- 0.024	0.003
YoY Mobile homes	**-0.085***	-0.12671	0.03982	0.032	- 0.163	- 0.007
YoY Misc. Housing Types	-0.0001	-0.00730	0.00104	0.882	- 0.002	0.001
Year 2013	1.427	0.30635	1.09620	0.194	- 0.729	3.583
Year 2014	-1.023	-0.21965	1.07973	0.344	-3.147	1.101
Year 2015	-1.308	-0.25095	1.08731	0.233	-3.448	0.830
Year 2016	-0.792	-0.17013	1.09139	0.468	-2.939	1.354
Year 2017	-0.408	-0.08760	1.09739	0.710	-2.567	1.750
Year 2018	.0133	0.02364	1.09769	0.903	-2.026	2.293
Year 2019	0.311	0.06684	1.07595	0.772	-1.805	2.428
Year 2020	-0.270	-0.05081	1.06083	0.799	-2.356	1.815
Year 2021	**2.514***	0.53955	1.07932	0.020	0.391	4.638
Year 2022	**7.029****	1.50894	1.19620	<0.001	4.675	9.382
Year 2023	**3.693****	0.79295	1.19523	0.002	1.342	6.045
Constant	4.010***		0.01637	0.001	2.116	5.904
Adjusted R-squared	0.273		Number of Obs.	344		

**** p<.01, * p<.05**

Note: Table reports robust standard errors, clustered at the county level.

Extremely Rent-Burdened Households

Table 7 presents the findings of a regression model examining the relationship between key structural factors and the percentage of households within counties that experienced extreme rent burden. As a reminder, for the purpose of analysis, extreme rent burden was defined as households where 50% or more of monthly income was used to pay rental costs. By far, the most significant predictors of extreme cost burden were the percentage of the population living 50% or more below the poverty level and median contract rent. As the population living at 50% or more below the poverty level increased within counties, the percentage of households experiencing extreme rent burden also increased. Moreover, as the median contract rents within counties increased, the percentage of households experiencing extreme rent burden also increased. Mobility and divorce rates were also associated with higher extreme cost burden within a county, while duplexes and 5–9-unit structures were associated with lower percentage of households experiencing extreme cost burden.

Table 7: Relationship between County Characteristics and Extremely Rent-Burdened Households, 2012-2023

	Coefficient	Beta	Robust S.E.	p-value	95% Confidence Interval	
Population 50% Below Poverty	**1.110*** **	0.47612	0.13192	<0.001	0.851	1.370
Public Assistance Income	**-0.309**	-0.08047	0.16821	0.067	-0.639	0.021
Median Contract Rents (in $100)	**1.005** **	0.36789	0.13877	<0.001	0.732	1.278
Mobility	**0.326** **	0.16262	0.10361	0.002	0.122	0.529
Divorce Rate	**0.368** **	0.12013	0.12871	0.004	0.114	0.621
YoY Single Detached Homes	-0.065	0.02041	0.10365	0.484	-0.406	0.276
YoY Single Attached Units	-0.006	-0.06116	0.00402	0.120	-0.014	0.001
YoY Duplexes	**-0.029***	-0.12007	0.00462	0.041	-0.048	-0.009
YoY 3-4 Unit Structures	0.001	0.00838	0.00827	0.824	-0.014	-0.018
YoY 5-9 Unit Structures	**-0.022***	-0.08855	0.01079	0.041	-0.043	-0.000
YoY 10-19 Unit Structures	-0.013	-0.04036	0.01363	0.451	-0.039	0.013
YoY 20-49 Unit Structures	-0.016	-0.05227	0.01283	0.208	-0.041	0.009
YoY 50+ Unit Structures	-0.009	-0.04307	0.00859	0.293	-0.025	0.007
YoY Mobile homes	-0.027	-0.02748	0.04650	0.550	-0.119	0.063
YoY Misc. Housing Types	-0.0005	-0.01802	0.00125	0.660	-0.003	0.001
Year 2013	0.122	0.02013	1.25702	0.923	-2.348	2.593
Year 2014	-0.317	-0.05225	1.25544	0.800	-2.785	2.150
Year 2015	-2.272	-0.37404	1.25854	0.072	-4.746	0.201
Year 2016	-2.285	-0.37618	1.26341	0.071	-4.770	0.198
Year 2017	**-2.999***	-0.49366	1.27599	0.019	-5.508	0.491
Year 2018	**-4.599** **	-0.75697	1.26717	<0.001	-7.090	-2.108
Year 2019	**-4.973** **	-0.81856	1.24752	<0.001	-7.426	-2.522
Year 2020	**-5.452** **	-0.89740	1.25803	<0.001	-7.926	-2.979
Year 2021	**-5.275** **	-0.86815	1.26630	<0.001	-7.764	-2.785
Year 2022	**-5.016** **	-0.85261	1.35435	<0.001	-7.679	-2.354
Year 2023	**-5.027** **	-0.82745	1.45838	<0.001	-7.894	-2.160
Constant	4.955		2.38100	0.038	0.274	9.636
Adjusted R-squared	0.376		Number of Obs.	430		

***** p<.01, *p<.05***

Note: Table reports robust standard errors, clustered at the county level.

Table 8 reports the findings of a regression model examining the effects of the same county characteristics on extreme rent burden, but only for Washington's rural counties. Here, the findings are very similar to those reported within the full subset of Washington's counties. Once again, poverty and median contract rents were the driving factors that predicted extreme rent burden, where increases in both measures led to increases in the percentage of the county population experiencing extreme rent burden. The measures for mobility, the construction of duplexes, and the divorce rates all maintained similar effects to those presented in the regression model examining the full set of Washington's counties. Overall, this patten of findings suggests that structural drivers of extreme rent burden may not be unique to rural counties.

Table 8: Relationship between Rural County Characteristics and Extremely Rent-Burdened Households, 2012-2023

	Coefficient	Beta	Robust S.E.	p-value	95% Confidence Interval	
Population 50% Below Poverty	**1.044****	0.43721	3.00340	<0.001	0.741	1.348
Public Assistance Income	-0.316	-0.08270	0.15417	0.099	-0.693	0.059
Median Contract Rents (in $100)	**1.226****	0.26913	0.19141	<0.001	0.705	1.746
Mobility	**0.370****	0.16181	0.26438	0.002	0.127	0.612
Divorce Rate	**0.354***	0.11653	0.10324	0.017	0.064	0.645
YoY Single Detached Homes	-0.131	-0.04152	0.14764	0.523	-0.535	0.272
YoY Single Attached Units	-0.006	-0.06102	0.20135	0.175	-0.014	0.002
YoY Duplexes	**-0.030****	-0.12702	0.00446	0.008	-0.052	-0.007
YoY 3-4 Unit Structures	0.001	0.00965	0.00455	0.838	-0.016	0.020
YoY 5-9 Unit Structures	**-0.022***	-0.09366	0.00949	0.039	-0.046	0.001
YoY 10-19 Unit Structures	-0.013	-0.04013	0.01087	0.394	-0.043	0.017
YoY 20-49 Unit Structures	-0.020	-0.06727	0.01523	0.162	-0.048	0.008
YoY 50+ Unit Structures	-0.008	-0.04372	0.01449	0.306	-0.027	0.010
YoY Mobile homes	-0.030	-0.02956	0.00962	0.591	-0.140	0.080
YoY Misc. Housing Types	-0.0004	-0.01398	0.05599	0.768	-0.003	0.002
Year 2013	0.325	0.04801	0.00140	0.847	-2.981	3.632
Year 2014	-0.156	-0.02304	1.68015	0.925	-3.432	3.120
Year 2015	-2.625	-0.38722	1.66477	0.119	-5.926	0.675
Year 2016	-2.567	-0.34505	1.67720	0.156	-5.874	0.738
Year 2017	**-3.399***	-0.49366	1.67098	0.045	-6.761	-0.037
Year 2018	**-5.251****	-0.77461	1.70930	0.002	-8.588	-1.915
Year 2019	**-5.600****	-0.82597	1.69532	0.001	-8.883	-2.316
Year 2020	**-6.013****	-0.85692	1.66853	<0.001	-9.322	-2.704
Year 2021	**-5.927****	-0.87422	1.68132	0.001	-9.274	-2.580
Year 2022	**-5.772****	-0.85145	1.70085	0.002	-9.422	-2.123
Year 2023	**-5.692****	-0.83965	1.85458	0.005	-9.697	-1.688
Constant	3.962		3.00340	0.188	-1.948	9.873
Adjusted R-squared	0.382		Number of Obs.	322		

**** p<.01, * p<.05**
Note: Table reports robust standard errors, clustered at the county level.

CONCLUSION

This addendum report examined several factors that impact homelessness in Washington State, including median rents, rent burden, poverty, and others. It builds on previous reports by assessing the factors that are also driving rental costs in the state, a major predictor of homelessness, as well as drivers of cost *burden*. Consistent with prior research, housing costs, specifically median rents for 1-bedroom units, was the most important predictor of homelessness across all counties in Washington State. Rents were the second most important predictor of homelessness for rural counties, while the percentage of the population over 65 years old had the largest impact on homelessness rates in these areas.

Rising housing costs continue to be a concern across Washington State. Median contract rent has increased 78.7% since 2013 and continues to rise. Trends and pattens at the county level reveal that there is substantial variation in increases in median contract rent, with Wahkiakum, King, Snohomish, Clark, and Kitsap Counties experiencing the largest percentage

increases across the state. However, most counties have experienced nearly a 50% growth in these costs since 2013. Similarly, the number of low-income households who are rent burdened varies across the state, with Whitman, Kittitas, Whatcom, and Thurston Counties experiencing the largest percentage of these households facing rent burden.

As housing affordability is directly related to housing shortages, national and state-level efforts have focused on increasing supply to reduce growing costs. The county-level analysis—whether examining all counties collectively or only rural counties—suggest that increasing the supply of specific structure types may help slow the year-over-year growth in contract rents. Adding more mobile homes, 3–4-unit structures, and 10–19-unit structures was estimated to reduce the rate at which median contract rents grow in all counties. Development of 5–9-unit structures was associated with reduced growth in median contract rent in the all-county model, but not the rural-only county model. This change suggests the effect is driven by urban counties. On the other hand, single attached units and duplexes were associated with decelerated rent growth in rural counties. Because this data covers construction between 2012 to 2023, most of these relationships can be said to reflect past trends. Specifically, 5–9-unit structures may have not produced significant effects in the rural models because these structures are more desirable in urban settings, while rural communities may have preferred other design options. Whether the passage of HB1110 affects this remains to be studied.

The percentage of the population living at or below 50 percent of the poverty level and median contract rents are the largest predictors of cost burden in both the all-county and rural-only models. Duplexes and 5–9-unit structures reduce the percentage of extremely rent burdened households in all counties. Unfortunately, the impact of "Missing Middle" housing, which has been encouraged in Washington State, cannot be directly assessed in this research. As this housing has specific features beyond unit-size, the data to fully assess these impacts is not available across the state.

It is important to note that analysis of individual-level data would have contributed to a better understanding of the root causes of homelessness in the state of Washington. The engagement between structural and individual-level factors would have provided the opportunity to further explore the pathways to homelessness for thousands of Washingtonians and better explain how these individual factors interact with structural elements to make some Washingtonians more at-risk. Unfortunately, the research team was unable to acquire this data after nearly three years of working with multiple state agencies. Washington collects high quality data that would allow in-depth research on the causes of homelessness, but currently, getting access to this data, even when state agencies work collaboratively to achieve this goal, is excessively burdensome. The inability to acquire data in a timely manner prohibits real-time analysis that could speak to this important policy issue. The original research strategy was to use this individual-level data to identify potential migration patterns, substance abuse and mental health trends, reasons for housing loss, demographic trends, and household risk factors, which would have been analyzed in the context of the structural conditions identified in this report. Methods like hierarchical modeling or nested regression may have helped answer vital questions concerning the

interaction of structural conditions and individual risk factors, including the role of mental health, substance use disorders, job loss, medical condition, and many others. This would have aided efforts to uncover more predictors of entry into homelessness, whose effects may only be apparent in combination with household risk factor data. Conversely, this data may also have allowed for more insight into successful reentry into stable housing. In the suggestions section, recommendations for more efficient data sharing are provided.

Overall, the results of this research indicate that a multi-faceted approach to addressing homelessness and housing costs is necessary. As the cost of housing, specifically median contract rent, is among the most important predictors of homelessness, addressing housing costs is paramount. However, both the analysis of homelessness and cost burden suggest that increasing the supply of housing may not sufficiently address these issues. Increasing supply without considering all the factors that impact affordability will limit the effects of these efforts. Efforts to increase "Missing Middle" housing may help, but more evaluation is needed to understand the impact of these efforts on housing costs and homelessness.

Suggestions

This study finds that increases in specific housing unit types do reduce growth in rental costs. As these costs are important predictors of homelessness, continuing to explore these options may help address both homelessness and housing availability. Although this analysis was not able to directly examine "Missing Middle" housing, early research does suggest this housing type can reduce growth in housing costs. As the Washington State Legislature encouraged growth in this housing type in 2023, it is recommended that the impact of this housing type on housing costs be evaluated. Effective evaluation will require information to be collected about where this housing is being built across the state, its specific features, as well as other characteristics not typically available through public data sources. Evaluation of these efforts will also allow determination of which types of "Missing Middle" housing are more effective in which regions of Washington State.

Additionally, acquiring the data to analyze individual-level factors of homelessness, a major determinant of pathways to homelessness, has been difficult. As indicated earlier in this report, DGSS researchers have worked to acquire this data for nearly three years and are still working to obtain access to the relevant data to better understand individual causes. The difficulty in obtaining data persists despite multiple state agencies working collegially to try to facilitate access. For researchers to be able to perform timely and reliable data analysis and reporting on these important topics, to inform the state, its residents, and policy development and implementation, it is recommended that data sharing procedures for state data be evaluated and opportunities for greater efficiency be considered and implemented.

Following the Macro-Micro framework, analyzing individual-level and structural data together may help answer vital questions like "Under what structural conditions do common homelessness risk factors (e.g. job loss, medical emergency) become *catalysts*? Under what structural conditions are PEH successfully rehoused? Which communities need more services?" Moreover, the individual-level data may help identify additional macroeconomic

patterns, the effects of which may only be discovered in combination with household risk profiles. We recommend efforts for individual and structural-level analysis continue to help provide a more comprehensive understanding of these issues.

If the legislature continues to examine drivers of housing costs throughout the state, some factors that should be assessed based on the review of several literatures are community characteristics (amenities, infrastructure, zoning, demographics), geographic constraints, development process and costs, housing stock changes, labor market trends, year-over-year median rent changes, and housing demand (see Been et al., 2024; Annenberg et al., 2018; Gyourko & Molloy, 2015; Byrne et al., 2012 & 2021; Saiz, 2010).

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