Governance, Costs, and Revenue Raising to Address and Prevent Homelessness in the Portland Tri-County Region

A report by the Portland State University Homelessness Research & Action Collaborative, & Northwest Economic Research Center

(Full Report Available at www.pdx.edu/homelessness)

II. COSTS OF ADDRESSING HOMELESSNESS

Background

In this section of the report, we estimate the number of people experiencing homelessness as well as those who need support to prevent homelessness. We then provide a set of cost estimates that include housing those experiencing homelessness, assisting those at risk of homelessness, and providing appropriate services to both groups.

Key Takeaways

- Communities of color (namely Black, Latino, and Native American communities) are disproportionately represented in the homelessness counts and/or renter cost-burdened rate.[1] One reason is income disparity. For example, the median income for Black households in the Portland area is half the overall median income.[2] While calculating additional costs to support people of color was not feasible in the time frame for this study, we want to note that ensuring that supporting these communities may require are living doubled up in other peoples' residences. Integrating these counts produce a more realistic estimate of people experiencing homelessness in the region.

- The numbers for doubled-up populations only include families with children due to limited methodological tools to estimate adults who do not have children living with them. The number of doubled-up individuals is likely higher.

- About 15% of those experiencing homelessness likely need permanent supportive housing.

- We examine three scenarios for providing housing and necessary supports for people experiencing homelessness. Costs over ten years range from $2.6 billion to $4.1 billion in net present value to cover housing and services depending on the scenario. Each scenario includes a high cost and low-cost estimate. These estimates are not reduced to account for either housing revenue measure being administered by Metro (Measure 26-199) or the

[1] We do not report on Asian & Pacific Islander (API) communities here because they are often not experiencing disparate rates of homelessness. However, the data for the API community is especially problematic. First, the number of APIs in the data set is small, leading to high margins of error. Second, because of the small numbers, we cannot meaningfully disaggregate data to examine rates for API subgroups. However, we know that there are marked differences between API populations in relation to socio-demographic and economic factors, where some populations are likely to experience disparate rates of homelessness.

[2] The reason for this income disparity, is of course, the legacy and continuation of structural, institutional, and interpersonal racism.

City of Portland (Measures 26-179). The Metro bond is specifically dedicated to construction, acquisition, and rehabilitation; not services.[3]

- Services[4] alone account for about $825 million–$910 million of the cost for resolving homelessness over the ten-year analysis period.

- Overall, the region does not have enough affordable housing for households making 0–80% Median Family Income (FMI). Many in this group are cost-burdened, which means they pay more than 30% of their income toward rent. There is an unmet need for affordably-priced units of all sizes. Units are available at higher price ranges (from 30% up to 80% of MFI) in most cases; notable shortages are present in studios and one-bedroom apartments, as well as three or more bedroom units. This means that construction of new units will be necessary to meet those housing needs even with rent assistance. However, if households are permitted to rent larger units than their households might normally be eligible for, the shortage for studios and one-bedrooms disappears.

Permanent Supportive Housing

HUD defines permanent supportive housing as permanent housing with indefinite leasing or rental assistance paired with supportive services to assist homeless persons with a disability, or families with an adult or child with a disability, to achieve housing stability.

- Further research is needed to determine whether the spatial distribution and quality of available units is sufficient. Assessing unit quality was beyond the scope of this work; however, we are aware that some of the units counting toward housing inventory may have serious issues. Likewise, previous research demonstrates that low-income households are being displaced to the outer edges of the region. We address this to the best of our ability by using a range of rents that reflect regional variation.

- Supporting low-income (below 80% MFI), cost-burdened households for 10 years would cost between $10.7 billion and $21 billion (net present value) for all cost-burdened households (paying more than 30% of their income toward rent). Supporting just the low-income, severely cost-burdened households (those who pay more than 50% of their income toward rent) would cost between $8.7 billion and $16.6 billion.

- Due to the two-pronged nature of this analysis, the rent subsidy value should not be summed with the costs necessary to support individuals experiencing homelessness; see below.

In our analysis we consider three main groups: those experiencing homelessness who would not require permanent supportive housing (PSH), those who would require PSH, and households at risk of experiencing homelessness due to low incomes and paying 30% or more of their income toward rent. These groups, and the resources and associated costs are summarized in Tables 2.1 and 2.2 below. It is important to note that the per-household costs

[3] City of Portland Auditor Mary Hull Caballero. (2016). Affordable Housing Bond Measure - 26-179 [web page]. Retrieved from: https://www.portlandoregon.gov/auditor/article/581552; See also: Metro. (2018). *Notice of measure election* [PDF file]. Retrieved from https://multco.us/file/74022/download.

[4] Services include those for PSH and non-PSH households, but do not include rent assistance or building operating costs.

might seem low, but this is because the value is an average of two groups with very different needs: those who need PSH and those who do not. Households in PSH are assumed to have housing constructed and services over the entire period, while those without receive only two years of rent assistance and services in existing housing.[5] We know that many homeless households will continue to need some type of assistance beyond two years; however, we were unable to identify a reasonable set of assumptions to calculate the amount of longer-term support necessary. Instead, we include how much it would cost overall for all households to continue to receive the same amount of support for two additional periods.

Table 2.1: Summary of Results for Homeless: Housing and Services[6]

Group	**Population**[7]	**Resources**	**Costs**
Total population experiencing homelessness (combined PSH[8] and Non-PSH)	38,263 individuals (or 24,260 households)	Housing construction and acquisition (one-time cost)	$190,000–$218,000 (0–1 bedroom unit) $190,000–$338,000 (2–4 bedroom unit)
		Rent assistance (per year)	$11,352–$18,960 (0–1 bedroom) $14,904–$41,000 (2–4 bedroom)
		Rent assistance administration (annual)	$800 per household
		System support and employment services (annual)	$450 per household
		Administrative costs (annual)	2.4%
With Permanent Supportive Housing Need	5,661 individuals (or 4,936 households)	PSH services (annual)	$8,800–$10,000 per household
Without PSH Need	32,602 individuals (or 19,324 households)	Services (annual)	$5,700 per household
Total		$2.6 billion– $4.1 billion, or an average of $107,000– $169,000 per household (Net present value for ten years)	

[5] For example, in 2024, expenses per household for those in PSH are $174,613, and $41,633 for those not in PSH. The values are similar for 2025, and thereafter the expenses for non-PSH households fall to zero (as our cost modelling provides for two years of rent assistance and services), and with construction complete, PSH costs per household fall considerably as well (reaching just over $26,000 in 2033, or a total of $128.7M).

[6] For consistency, all data come from 2017.

[7] Where possible, we provide individual and household estimates. Some data are collected on an individual basis, other on the household basis. We use household size estimates from the American Community Survey 2017 5-Year Estimates to convert individuals to households as needed.

[8] Permanent Supportive Housing: Approximately 15% of the homeless population is assumed to require permanent supportive housing services, and costs for this group are calculated separately from the costs associated with the 85% that does not require these more intensive services.

Table 2.2: Summary of Results for Universal Rent Assistance (Homelessness Prevention)

Group	Population	Resources	Costs
Cost burdened (spend >30% of income on rent, earn <80% AMI[9])	107,039 households (*includes severely cost burdened, below*)	Universal housing rent assistance	$10.7 billion - $21 billion (NPV[10], 2024-2033)
Severely cost burdened (spend >50% of income on rent, earn <80% AMI)	82,576 households	Universal housing rent assistance	$8.7 billion - $16.6 billion (NPV, 2024-2033)

Limitations

There are several things to keep in mind while reading this section. First, existing rigorous research for some of these topics is limited. Second, data sets about homelessness have limitations, and in some cases we have no data.

Third, these analyses are not iterative or interactive. We assume that rent assistance is successful at limiting people becoming homeless, and that the resources provided are enough, and effective at moving people into housing. In other words, no one else becomes homeless, and everyone exits homelessness. Our goal was to produce a general framing series of estimates to help people understand the scope of the issue. A more complicated analysis would be required to consider realistic timing of bringing new affordable units on line and scaling up services and rent voucher programs, and how these programs would reduce costs of the emergency shelter system. Such analyses would also examine how creating access to more housing would affect the housing market overall. These analyses were beyond the scope of this work.

Fourth, based on current practices there are limited methods for assessing how addressing racial equity may increase costs. We draw attention to the significant inequities several communities of color experience. Further research will help demonstrate if that type of work translates into significant additional costs.

Lastly, the costs presented in the table above and throughout ***may not be aggregated to arrive at a single number***. For example, households not requiring permanent supportive housing are assumed to receive two years of rent assistance and services and then exit the system and the cost scenario. However, they might end up requiring the type of housing voucher discussed for

9 Area Median Income: average household income adjusted for family size, as used by US HUD to determine aid thresholds.

10 Net Present Value: This report often presents program costs in net present value, which estimates the present value of an investment by accounting for the discount rate (10%) and therefore the time value of money; as well as inflation when appropriate. This method most clearly allows sums to be considered comparatively, at the present time. (Note that nominal cash, or cash in the year in which it is used, is often presented as well.)

the at-risk group, which would increase that estimate, as only housed individuals are considered in that group at this time. Another example: previous work by local consultant ECONorthwest found that housing unaffordability is a major driver of homelessness.[11] If vouchers were used to make such housing affordable, then the number of homeless individuals would be much lower. Presumably the non-PSH group would likely move from homeless to the at-risk-category receiving rent assistance, requiring fewer interventions. These estimates are meant to be considered separately, not added together, because of the complex interactions that would result if these policies were deployed simultaneously: the entire landscape from which the data used in this report was drawn would shift in ways that fall beyond the scope of this assessment.

Homelessness and other Key Terms

Different organizations and institutions use varying definitions of homelessness, adding an additional level of complexity to already complicated datasets. As discussed in the introduction, the federal government lacks a unified definition of homelessness. The HUD definition of homelessness focuses on people living unsheltered or sleeping in a place not designed for sleep, living in shelter designed to serve people without permanent housing, people who will lose their housing, and some additional types of unaccompanied youth and families. HUD has also changed their definitions of homelessness as well as specific subtypes of homelessness over the years.[12]

For the purposes of this report, the major way in which homelessness definitions vary is whether or not an organization defines homelessness as including people living doubled up with family or friends due to loss of housing or economic hardship. In this report, we define homelessness to include people living doubled up. Including doubled up populations is particularly important for racial equity as communities of color often experience homelessness in this way. As explained in the introduction of this report, all the categories come with specific conditions, and sub-categories with additional criteria.

Additional terms that have multiple meanings include permanent supportive housing, support services, and supportive affordable housing. Traditionally, permanent supportive housing referred to providing housing and supportive services for those experiencing chronic homelessness and people with severe mental illnesses experiencing homelessness (this includes addiction services). The most commonly known model that has demonstrated

[11] ECONorthwest. (2018). *Homelessness in the Portland region: A review of trends, causes, and the outlook ahead* [PDF file]. Retrieved from https://m.oregoncf.org/Templates/media/files/publications/homelessness_in_portland_report.pdf

[12] Signed into law in 2009, the HEARTH Act reauthorized the McKinney-Vento as and included substantive changes to the homelessness definition (among other things).
In 2012, a final rule offered additional substantive definitional changes for what constituted homelessness. The definition for chronic homelessness was changed yet again in 2015. For a discussion about the differences in definitions, and the supporting federal statutes, see: U.S. Department of Housing and Urban Development [HUD]. (n.d.). *Homeless Emergency Assistance and Rapid Transition to Housing Act.* Retrieved from https://www.hudexchange.info/homelessness-assistance/hearth-act/.

effectiveness at moving and keeping people without stable housing into housing is known as Housing First.

As the word “permanent” implies, this model assumes that some people may need access to support services for their lifetime. Ideally as people become more stable in housing, the degree and intensity of supportive services will decrease, and for some will disappear altogether. Keep in mind that some people develop addictions and mental illness while living as homeless. In this instance, the model indicates that intense services at the beginning and no-barrier housing could result in a person managing/in remission/etc. from their addiction.

In Portland, local government, practitioners, and advocates have argued for expanding PSH and the concept of support services more broadly. First, permanent supportive housing models are based on research with individuals experiencing homelessness. Portland is applying this concept to families who also need permanent supportive services. Second, support services means services that people may not need permanently (such as medical care for chronic illness), but do need shorter terms services to support moving forward. Examples include job training, etc.

In this report, we follow Portland’s lead in using PSH to include individuals and families in need of PSH and to ensure inclusion of support services for all people experiencing homelessness.

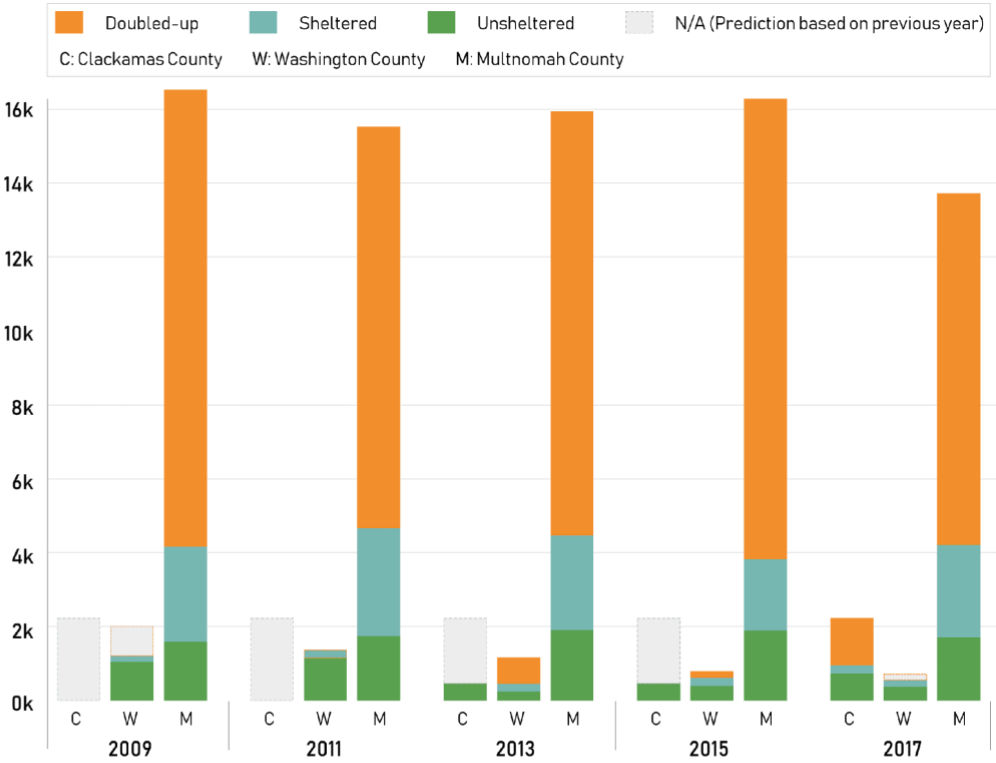
Understanding Homelessness in the Portland Tri-County Region

There have been a number of reports assessing homelessness in the region in recent years. We summarize the most salient ones that pertain to the cost estimates of the study.

Point-In-Time (PIT) Reports

In order to receive federal funding, local areas termed Continuums of Care (CoCs) must conduct “Point-in-Time” Counts (PIT) of all homeless individuals and families in their jurisdictions at least every two years. These counts must take place during the last 10 calendar days of January. The count occurs over a single night. The required PIT Count requires a census-style count of people living unsheltered, in emergency shelter, or in transitional shelter. Some jurisdictions also report a doubled-up count that come from a range of sources, and in the case of Multnomah County are provided by school homelessness liaisons. The doubled-up data provided by schools for PIT Counts are not the same data required for annual homelessness reporting for the schools. The doubled-up counts, meaning individuals living with friends or family for economic reasons (e.g. someone living on a friend’s couch) are usually based on annual surveys of schools. This is separate from the annual school data reported (which is what we used for our analysis). The PIT Count Figure 2.1 combines results from the most recent PIT Count reports for Multnomah, Washington, and Clackamas Counties. Remember changes in definitions make data not perfectly comparable.

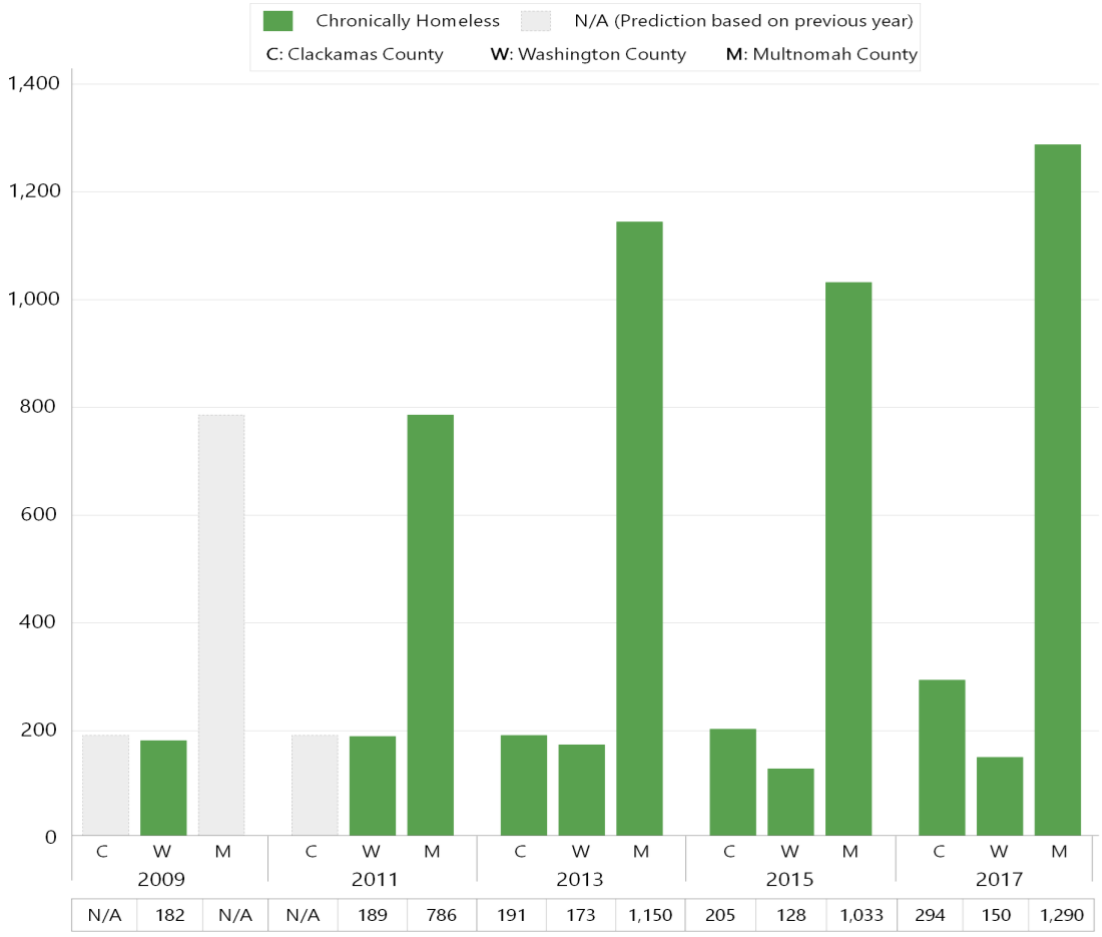
Figure 2.1: Timeline of PIT Counts Estimate in Clackamas, Multnomah, and Washington Counties by Housing Situation



Doubled up	N/A	N/A	12,190	N/A	N/A*	10,908	N/A	721	11,476	N/A	185	12,453	1,295	N/A	9,522
Sheltered	N/A	150	2,554	N/A	200	2,937	N/A	200	2,546	N/A	196	1,914	192	175	2,509
Unsheltered	N/A	1,058	1,591	N/A	1,156	1,718	478	232	1,895	484	395	1,887	746	369	1,668

Figure 2.2 shows the number of chronically homeless individuals[13] in each county by year. Changes in methodology mean that these numbers are not always directly comparable from year to year. Note that methodologies for conducting the PIT Count may differ between counties as well.

Figure 2.2: Chronically Homeless Counts and Definitions by Year and County

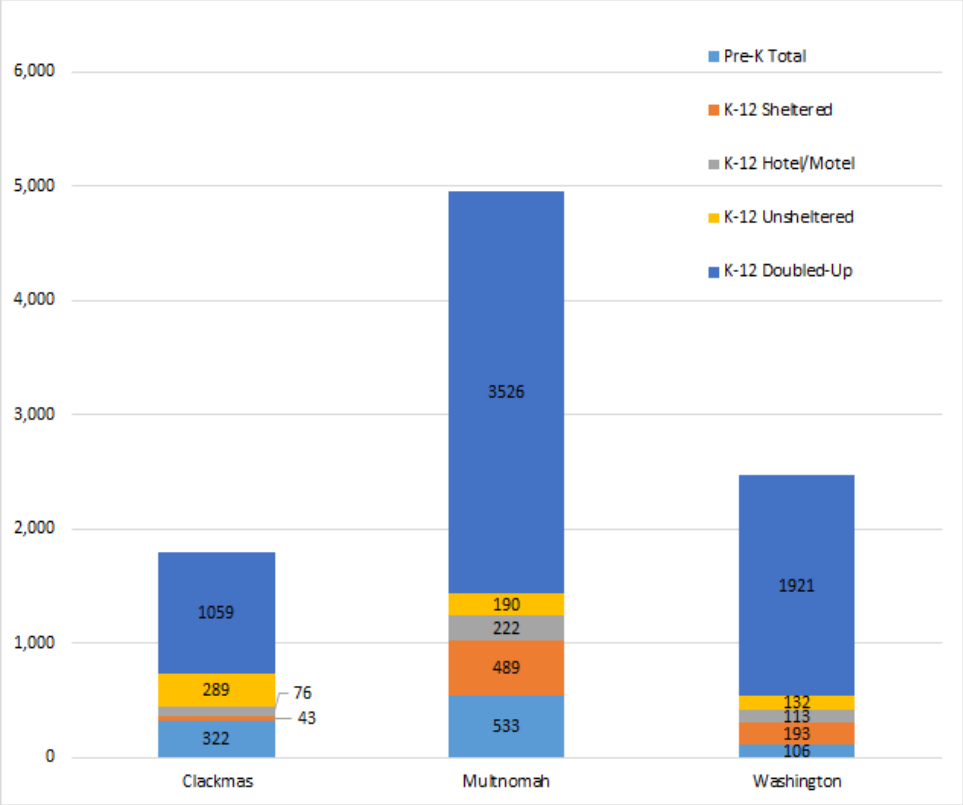


[13] A chronically homeless individual is one who has experienced homelessness for at least one year, or who has experienced four episodes of homelessness over the previous three years totaling one year, and who has a disabling condition (Department of Housing and Urban Development, 2018 Annual Homeless Assessment Report to Congress).

Reports from the Oregon Department of Education

As required by federal statute, Oregon public school districts employ student liaisons who identify and provide direct support to students experiencing homelessness, and their families. Records kept by school districts on homeless students are a valuable resource, above and beyond the PIT Count, to track child homelessness, especially as they use a different methodology (and therefore can capture students who may not be counted in the census-style PIT); and are done namely through individual identification by teachers and liaisons. Figure 2.3 shows the number of homeless students by housing situation and county in the 2017-2018 academic year.[14]

Figure 2.3: School District Homeless Students by County and Housing Situation, 2017-2018 Academic Year



Reports from the Corporation for Supportive Housing (CSH)

Over the last two years, CSH has produced two reports assessing Portland's supportive affordable housing. The first, released in September of 2018, is titled *Scaling Smart Resources, Doing What Works: A System-Level Path to Producing 2,000 Units of Supportive Housing in*

[14] Oregon Department of Education. (2018). McKinney-Vento Act: Homeless Education Program [web page]. Retrieved from: https://www.oregon.gov/ode/schools-and-districts/grants/ESEA/McKinney-Vento/Pages/default.aspx

Portland and Multnomah County, and used an approach combining stakeholder input, data analysis, and a review of best practices to produce a plan that can close the supportive housing gap in Portland. Costs total $592 million to $640 million over the first ten years, with annual investments of $43 million to $47 million thereafter for building operations and service costs.

The second CSH report, titled *Tri-County Equitable Housing Strategy to Expand Supportive Housing for People Experiencing Chronic Homelessness* and released in February 2019, expands the analysis to include the entire Metro area, while focusing on chronically homeless individuals. Additionally, the report models costs for supportive housing, in order to show the savings feasible under the required investment: a chronically homeless individual imposes an average annual cost, via use of public systems, that is nearly double the cost of providing supportive housing services. Units are distributed between counties according to need, and total costs over a ten-year period are $923 million to $998 million.

Addressing Housing Needs for Population Experiencing Homelessness

In this section, we estimate ranges of costs to provide housing and supportive services (temporary and permanent) to the population experiencing homelessness in the tri-county region (Clackamas, Multnomah, and Washington Counties). We start with the various counts of the total population without housing (including sheltered, unsheltered and doubled-up individuals) to create a reasonable estimate of people experiencing homelessness in 2017. We then estimate the number of people who will need permanent supportive housing (PSH) and the number of people who do not need PSH. Based on assumptions of families and household sizes, these numbers are then converted into numbers of households (family and individual households). Costs of housing provision (including capital and ongoing operating costs), service provision and administrative costs are estimated on a per household basis. Finally, we calculate a range of costs to provide housing to the homeless population based on several scenarios with different assumptions.

Assessing the true size of the homeless population is a tremendous challenge due to limited data. It is difficult to determine the population of a group that is not consistently engaged with public systems, is constantly in flux as individuals enter and exit homelessness, and lacks stable residential addresses (some non-profits will receive mail for their clients). Snapshot counts, such as the widely-used PIT Count cited below, miss individuals living doubled up as well while other methods require that households and individuals access services in order to be counted—services that are constrained by budgetary and staffing levels to assist only a certain number, and are rife with institutional and implicit biases. Stakeholders and entities engaged in working with the homeless and financially disadvantaged population express that they are not able to assist every family and individual who requires their services. Further not all nonprofits providing services participate in government system data tracking. Based on in-person interviews, we know that at least some individuals will not show up in the government reports, and we have no way to

account for their services. In short, counts derived from service provision can be assumed to be low as well.

At the same time, there is no central database shared among the data collectors, so it is possible for households and individuals to be counted multiple times. Lacking a cohesive central database across the region and consistent long-term definitions and reporting methods, this challenge is likely to continue.

With these things in mind, note that all counts presented in the below sections must be considered educated guesses. It is possible to state precise individual numbers from the datasets we used, (i.e., “The 2017 PIT records 1,668 unsheltered individuals in Multnomah County”) but it is not possible to state the exact number of households (a category not often used in counts) and overall individuals experiencing homelessness in the Portland tri-county area. This report takes the most straightforward approaches possible to estimate an overall count, rather than adding assumptions to assumptions in an attempt to zero in on a degree of precision that is not realistically achievable regardless of the amount of data points or statistical technique.

When estimating the costs we have tried to be as consistent with other reports as possible. Unfortunately with several of the reports, precise methodologies were not possible to locate. Further, where we were able to identify assumptions, we found that some of those assumptions are also best educated guesses based upon available data and stakeholder input. If we found new research, or new thinking by some of those same stakeholders, we changed assumptions. This still means that our calculations are also not precise in a way you might see in other types of studies, and are best used as an educated and informed estimate. Our work here is to help people in the Portland region understand the magnitude and scope of the affordable housing and homelessness challenges we face.

Our most important deviation from other reports about homelessness is a definition of homelessness that includes doubled-up populations. This definition is consistent with other federal agencies such as the Department of Education, and with A Home for Everyone, the inter-jurisdictional initiative to address homelessness within Multnomah County.

Population Experiencing Homelessness in 2017

In order to estimate the costs of providing housing to the population experiencing homelessness, we estimate the size of that population in the tri-county region. This estimate utilizes several data sources discussed in the previous section of this report, including the biennial Point-in-Time (PIT) counts, annual homelessness assessment reports (AHAR) along with related reports provided by each Continuum of Care (CoC) to HUD, and annual Oregon Department of Education counts of homeless children and youth. Table 2.3 below summarizes the various homeless population counts from these data sources in calendar year 2017 or fiscal year 2017.

Table 2.3: Homeless Population Data Summary, 2017

	2017 Point-in-Time (PIT)			2017 PIT		
	Unsheltered	**Sheltered**	**Doubled Up**	**Chronically Homeless**	**FY 2017 Annual Homelessness Assessment Report[1]**	**2016-2017 Oregon Dept of Education Homeless Children & Youth[2]**
Clackamas	746	192	1295[3]	294	723	1789
Multnomah	1668	2509	9522[4]	1290	11648	4960
Washington	369	175	5778[5]	150	764	2465

[1] Annual Homelessness Assessment Reports (AHAR) are reports to HUD and include unduplicated individuals served in emergency shelters (ES) or transitional housing (TH) between 10/1/2016-09/30/2017.
[2] Oregon Dept of Education counts includes both Pre-K and K-12 homeless populations. Within the K-12 homeless population, the number is further broken down into sheltered, doubled up, hotel/motel and unsheltered counts.
[3] Clackamas County doubled up population includes 385 people counted as living in doubled up or unstable housing, and 910 children in the same situation (counted by Homeless School Liaisons).
[4] Multnomah County doubled up population (reported in the 2017 Multnomah County PIT Report) is based on the Dept of Education doubled up population and household size assumptions (by school district).
[5] The Washington County doubled up population was not reported in its 2017 PIT report. We estimate this number by using the Dept of Education Pre-K homeless, K-12 doubled up and K-12 hotel/motel (equal to 2,140), and assuming an average household size of 2.7 (2017 ACS 5-year averages for Washington County).

We used these data sources to help calculate the total homeless population for the purpose of estimating the range of costs to provide housing for the entire population, including all unsheltered homeless, sheltered homeless (in emergency shelters or transitional housing), and all doubled-up individuals. The AHAR counts of individuals served in emergency shelters (ES) and transitional housing (TH) and the doubled-up population estimates are annualized estimates (accounting for all individuals who might have experienced homelessness during the year), while the PIT Counts are snapshot estimates. Two main adjustments are applied to the data as follows:

- An annual extrapolation factor of 1.9[15] was applied to convert the snapshot unsheltered homeless PIT Counts into an annualized unsheltered estimate. This is a low extrapolation factor, selected because of its use by the Multnomah County Joint Office of Homeless Services. A 2001 attempt arrived at extrapolation factors ranging from 2.5 up to as high as 10.2, meaning that our numbers may be low (although it is important to note that the level of services available is an important determinant; in areas with more awareness and services a lower number is more appropriate).[16]

- Clackamas County and Multnomah County utilized different estimation methodologies to calculate the total doubled-up population reported in their PIT reports. To be consistent across the tri-county region, we use the Department of Education Pre-K homeless, K-12 doubled-up and K-12 hotel/motel counts (last column of Table 3.1 above) for each county,

[15] This factor was used in JOHS's calculations to annualize street PIT Counts, and is the factor used in the Rapid Results Institute program.
[16] Metraux, S., Culhane, D., Raphael, S., White, M., Pearson, C., Hirsch, E. & Cleghorn, J. S. (2016). Assessing homeless population size through the use of emergency and transitional shelter services in 1998: Results from the analysis of administrative data from nine US jurisdictions. *Public Health Reports.*

multiplied with the county average household size (2017 ACS 5-year averages) to estimate the doubled-up population for the purposes of our cost estimates.[17]

Because our doubled-up data is derived from schools, it does not include doubled-up individuals who are adults, aside from those with children. Adults who are temporarily cohabiting with friends and family due to financial hardship are not represented in our data at all, and it is known that the size of this population is fairly significant: the 2011 American Housing Survey found 25 million individuals living with relatives who were not their spouses or children, 11.5 million living with nonrelatives, and 3.6 million households with more than one family in them (541,000 of which were not related) nationwide.[18] We assume not all of these are voluntary arrangements, and the AHS may not be including adults who are not able to live on their own but whose friends and families decide not to turn them out. The best data available at the time of writing was that from schools, and it seems likely that families with children are more likely to cohabit out of necessity rather than choice, so we use the referenced schools' data, but offer it with the caveat that it by definition represents a subsection of the actual doubled-up population.

These homeless population estimates are summarized in Table 2.4, totaling 38,263 homeless individuals in the tri-county region.

Table 2.4: Homeless Population Estimates, 2017

	FY2017 AHAR Count (ES & TH)	2017 Unsheltered PIT x Annual Extrapolation Factor	FY2017 Doubled-Up Estimate	Total Estimated Homeless Population
Clackamas	723	1,417	3,788	5,928
Multnomah	11,648	3,169	10,274	25,091
Washington	764	701	5,778	7,243
Total	**13,135**	**5,287**	**19,840**	**38,263**

Homeless Individuals with Permanent Supportive Housing (PSH) Need

We further break down the estimate of the total population experiencing homelessness into two categories—those who need permanent supportive housing (PSH), and those who do not need PSH. The Corporation for Supportive Housing (CSH)'s 2018[19] report to the Multnomah County Board of Commissioners and Portland City Council estimates that 90% of individuals

[17] People can sometimes inexpensive lodging at low cost motels. Motels usually do not include access to a kitchen, and are not considered permanent housing.

[18] U.S. Department of Housing and Urban Development [HUD]. (2011). American housing survey reveals rise in up households during recession. *PD&R Edge.* Retrieved from: https://www.huduser.gov/portal/pdredge/pdr_edge_research_012714.html

[19] CSH. (2018). *Scaling smart resources, doing what works: A system-level path to producing 2,000 units of supportive housing in Portland and Multnomah County* [PDF file]. Retrieved from: http://ahomeforeveryone.net/s/CSH-Supportive-Housing-Report_Sept7_FINAL.pdf

experiencing chronic homelessness and 10% of all households experiencing homelessness will need permanent supportive housing (pg. 11).

Following consultation with local experts, we received conflicting advice about whether these estimates for PSH could be applied to the doubled-up population. Some stated that this rate would be lower for doubled-up populations based on a belief that many people who require PSH do not cohabit successfully. However, others countered that because we actually know so little about the doubled-up population we have no idea how many people may be able to survive doubled-up and have families and friends taking risks to house them.

We reviewed the available academic literature, of which there was little, consulted with a research psychologist, and examined national rates of disabilities that qualify for PSH (including mental illness, drug or alcohol use disorders, or physical and cognitive disabilities).[20, 21] We found no estimates about PSH rates for doubled-up populations, and decided that we would apply the ratios CSH identified for HUD defined homelessness to our broader definition that includes doubled-up populations.[22]

In the interest of simplicity we follow a similar methodology and estimate that the homeless population with PSH need is the sum of:

(i) Current homeless population with PSH need:
90% of chronically homeless population (2017 PIT Counts) = 1,561
10% of total estimated homeless population (Table 2.4) = 3,653[23]

To estimate the population of those who returned to homelessness after being in permanent supportive housing, we examine retention rates for this population. The rate of return to homelessness after exiting from permanent supportive housing within two years is reported at 3% in Clackamas County, 26% in Multnomah County and 9% in Washington County (HUD SPM 2017 reports). A Home for Everyone's (AHFE) FY2017 report cites 26% who are not confirmed still in housing after 12 months of their permanent housing placement. Because these retention

[20] National Institute of Mental Health. (2019). Mental illness. Retrieved from https://www.nimh.nih.gov/health/statistics/mental-illness.shtml

[21] Estimates for people who have disabilities that qualify for PSH are difficult to find as eligibility requires both a medical diagnosis and that people demonstrate that the "disability must also be of long and continuing duration, substantially impede the program participant's ability to live independently, and be improved by the provision of more suitable housing conditions." NIMH estimates that 4.5% of the adult population has a serious mental illness (https://www.nimh.nih.gov/health/statistics/mental-illness.shtml). Estimates of drug or alcohol use disorders vary. One study, funded by NIH, found that 10% of adults had a drug disorder in their lifetime, and 30% had an alcohol disorder (https://www.nih.gov/news-events/news-releases/10-percent-us-adults-have-drug-use-disorder-some-point-their-lives). National estimates for physical, intellectual, and emotional disabilities were not easily accessible, and where they were located, it was not possible to tell which might prevent independent living.

[22] We would like to note that CSH does not agree with this decision "because they do not have data nor have they done the analysis to support it" (personal note 8/5/2019).

[23] Ninety percent of the chronically homeless population (1,734) is equal to 1,561. Ten percent of the remaining homeless population is determined using the total number of homeless (38,263) less the chronically homeless (1,734), a tenth of which is 3,653 (rounded).

numbers may include both those served in PSH and RRH (rapid re-housing) and are highly dependent on the ability to establish contact with this population after a certain period of time, we further obtain annual performance reports (APRs) from the three counties to estimate more accurate retention rates. We find a weighted average retention rate[24] of approximately 92.15%, which means that 7.85% of those previously served in PSH return back to homelessness.

(ii) PSH inflow from reentry (estimated population of those who were previously served in PSH, but returned to homelessness) = 5,691 x 7.85% = 447

The estimated population lacking housing who need PSH in the tri-county region is equal to 5,661 individuals, about 15% of the total population experiencing homelessness.

Households Experiencing Homelessness

In order to estimate the costs of providing housing to the population experiencing homelessness, we estimate the number of homeless households, or amount of housing units needed, from the total homeless population estimate. We separately estimate the number of households for the homeless population with PSH need and the homeless population without PSH need.

Homeless Households with PSH Need

While FY2017 AHAR reports indicate that 38.7% of the chronically homeless population (which comprises a large component of the homeless population with PSH need) served in PSH were in families, the 2017 Multnomah County PIT Count showed that 3.9% of those chronically homeless are in families. This differential suggests that more PSH-related services are targeted toward families than individuals, meaning that the AHAR percentage may be biased to be higher than the actual number of families within this population. At the same time, expert consultation indicates that the PIT undercounts families. We concluded that it is reasonable to split the difference, and use 21.35% to estimate the number of family households with PSH need:

(i) Family households with PSH need = 5,661 x 21.35% / 2.5 = 483 family households
(ii) (Note: We assume an average household size of 2.5 persons in the tri-county region using the 2017 ACS 5-year estimates.)
(iii) Individual households with PSH need = 5,661 x 78.65% = 4,452 individual households (Note: an “individual household” is a household consisting of a single individual who resides alone.)

The estimated homeless households with PSH need in the tri-county region is equal to 483 family households and 4,452 individual households, totaling 4,936 households with PSH need.

[24] We utilized three alternative measures to calculate the retention rate using the APR data from each county (all of the following are calculated as a percentage of the total number of people served in PSH): (1) those who stayed in PSH; (2) those who stayed in PSH or exited to a permanent destination; (3) those who did not exist to a temporary or unknown destination. The weighted average retention rate is weighted by number of individuals served in PSH in each county.

Table 2.5: Number of People Served in PSH by Families/Non-families (Source: FY 2017 AHAR)

	FY 2017 AHAR Numbers Served in PSH		
	People in families[25]	People not in families	Family Percentage
Clackamas	163	178	47.8%
Multnomah	1888	2958	39.0%
Washington	154	350	30.6%

Homeless Households without PSH Need

The 2017 PIT reports from the three counties reported that 15% to 37.5% of the homeless population are in families. We use school data, where nearly all households are families (as the data points are children, typically accompanied by one or both parents). For simplicity we assume that all 19,840 doubled-up homeless are in families. We follow the CSH (2019) study in assuming that the 19% of the remainder of the homeless population are in family households (which is in line with the 15-37.5% range found in the PIT counts, here applied to the PIT and AHAR data). Recall that the 2017 AHAR report found 13,135 homeless individuals, and the 2017 PIT Count found 5,288. Therefore, the number of family and individual homeless households without PSH need can be found as follows:

(i) Doubled-up households= 19,840 individuals / 2.5 = 7,936 family households; Individuals in families (AHAR, PIT) = (13,135 individuals + 5,288 individuals) x 19% / 2.5 = 1,400 family households

(ii) Family households without PSH need (AHAR, PIT): 1,400 family households – 483 family households with PSH need = 917 family households

(iii) Total family households without PSH need = 7,936 family households (doubled up) + 917 family households (AHAR, PIT) = 8,853 family households

(iv) Individual households (AHAR, PIT) = (13,135 individuals + 5,288 individuals) x 81% = 14,923 individual households.

(v) Individual households without PSH need: 14,923 individual households (AHAR, PIT) – 4,452 individual households with PSH need = 10,471 individual households

The estimated homeless households without PSH need in the tri-county region is equal to 8,853 family households and 10,471 individual households. This totals 19,324 households without PSH need.

Cost Assumptions

The costs of providing housing to people experiencing homelessness can be divided into two essential categories: the cost of providing housing units (via development or acquisition) and the costs of services and administration.

[25] People in families = number of people in families.

Costs of Housing Provision

To meet the housing needs of those currently experiencing homelessness, public agencies and private organizations can choose to: build new housing units, acquire existing units, rehabilitate existing housing, or privately lease housing units on the rental market. Developing, acquiring, or rehabilitating housing units usually entails higher upfront capital costs, but have lower ongoing operating costs. The private lease of housing units entails costs that are more evenly spread through the analysis time periods (CSH, 2019).[26] However research has demonstrated that leasing units in the private market may lead to landlords charging more rent and lease units at higher rates than their quality warrants.[27]

Because rents vary considerably by neighborhood in the Portland region, we included a range of rents for consideration. Our goal here was to create estimates that would not imply the concentration of available units in just one area of the region (i.e., primarily in the outskirts of the region and lower-cost neighborhoods). A healthy community has a range of housing types and costs, and we used a range of rents to help encourage that.

Table 3.4 summarizes the housing cost assumptions below (page 76).

The costs of developing housing units, including new construction and rehabilitation, mainly follow the vetted assumptions from the CSH (2018 and 2019) reports (based on "actual costs reported by PHB and approved by stakeholder advisory groups"). The only adjustment comes from the Metro Affordable Housing Bond Program Work Plan (2019) and Regional Housing Bond Financial Modeling Summary Memorandum (2018). These sources peg the average construction cost of housing units at $215,000 (a weighted average for all housing unit sizes), and the cost of rehabilitation of existing units at $190,000 (including $150,000 building acquisition cost and $40,000 rehabilitation cost, all in 2018 dollars). CSH (2018) estimates that annual operating and maintenance costs run between $6,000 and $8,000 per unit. This range is similar to Portland area annual expenses reported by Multifamily NW's The Apartment Report (Spring 2019), which estimates a cost of $6.01 to $7.36 per square foot (a similar result when factoring in unit size). Note that these operating costs only pertain to the maintenance and operation of the buildings themselves, and do not include any additional support services that may be provided. Support service costs are estimated elsewhere.

We examined three main data sources to estimate market rents in the tri-county region: the FY 2017 HUD Fair Market Rent (FMR) for the Portland-Vancouver-Hillsboro, OR-WA MSA[28], 2017

[26] Per CSH 2019 p. 23: "Because the ongoing costs of providing rental assistance for private market units is greater than the annual operating costs of newly constructed supportive housing units, the total cost of leasing supportive housing units in the private rental market becomes significantly more expensive in the long run than building new units. Using the cost and inflation assumptions above, the ongoing cost of newly developed units becomes lower than the cost of leased units in year 30 for studio and one-bedroom units and in year 23 for two and three-bedroom units."

[27] Desmond, D, & Perkins, K. (2016). Are landlords overcharging housing voucher holders. *City and Community,* (15), 137-162.

[28] U.S. Department of Housing and Urban Development [HUD]. (2017). Fair market rents [web page]. Retrieved from https://www.huduser.gov/portal/datasets/fmr.html#2017_data

Portland State of Housing Report[29], and FY 2017 HUD Hypothetical Small Area Fair Market Rent[30] for all regional zip codes. To avoid underestimation of rental prices, we pulled out both average rents by bedroom for the City of Portland and the maximum rent by bedroom from the individual neighborhood estimates in the Portland State of Housing Report. We also identified the maximum fair market rent in all zip codes covered by the HUD Hypothetical Small Area FMR document. Table 2.7 summarizes these rental prices, which are also generally consistent with the overall average rents reported in the MultiFamily NW (Spring 2019) report.

The ranges of annual rent assistance specified in Table 2.6 are the average and maximum annual rents for individual housing units (0 to 1 bedroom)[31] and family units (2 to 4 bedrooms) calculated from prices in Table 2.7. (For example, cost ranges for individual units are estimated using the average value of $946 and the upper-end value of $1,580 per month, for annual costs of $11,352 to $18,960. The information in these tables assume that 100% of the cost is paid on behalf of the renter, unlike rent calculations for housing rent assistance later in the report.)

Table 2.6: Costs of Housing Provision (development vs. private lease), 2017

Development of Housing Units	
Individual Units (0-1 bedroom)	$215,000 - $218,000 one-time cost per unit
Family Units (2-4 bedrooms)	$338,000 one-time cost per unit
Rehabilitation of existing units	$190,000 one-time cost per unit
Operating Costs *(annual)*	$6,000–$8,000 per unit per year
Private Lease of Housing Units (rent assistance, annual)	
Individual units (0-1 bedroom)	$11,352–$18,960 per unit per year
Family units (2-4 bedrooms)	$14,904–$41,000 per unit per year

Table 2.7: 2017 Tri-county Region Rental Price Summary, monthly

	0 bed	**1 bed**	**2 bed**	**3 bed**	**4 bed**
2017 HUD FMR	$946	$1,053	$1,242	$1,808	$2,188

[29] Portland Housing Bureau. (2017). *State of housing in Portland.* Retrieved from https://www.portlandoregon.gov/phb/article/681253

[30] U.S. Department of Housing and Urban Development [HUD]. (2017). *Small area fair market rents: FY2017 hypothetical small area FMRs.* Retrieved from https://www.huduser.gov/portal/datasets/fmr/smallarea/index.html#2017

[31] 0 bedrooms is a studio.

2017 Portland State of Housing Report					
City Average	$1,130	$1,350	$1,599	$1,717	$1,975
Neighborhood Average Max	$1,271	$1,546	$2,431	$2,971	$3,417
2017 HUD Hypothetical Small Area FMR					
Zip Code Max	$1,420	$1,580	$1,860	$2,710	$3,280
Note that we estimated 4 bedroom units to cost 15% more than 3 bedroom units for the Portland State of Housing Report numbers as this report does not include averages for more than 3 bedroom units.					

Cost of Services and Administration

The cost of services can vary significantly depending on the challenges and conditions that each household encounters, and administrative costs also vary in relation. We identify five categories of costs for services and administration. Some of our estimates may include limited overlaps across categories as we drew from different data and estimate sources. We sought to avoid overlap as much as possible.

1. *Overall system support, employment services = $450 per year per household*
   We estimated this cost using costs spent in these two areas according to the Multnomah County Homeless Services System Program Spending Dashboard (FY 2014–FY 2017)[32] in Fiscal Year 2017 and divided by the number of people served. The system support category in this dashboard consists of "programs that support the entire homeless services system, including administrative costs, information and referral, research and evaluation and benefits recovery programs." Employment services, according to the dashboard, consists of "programs connecting employment and housing resources for individuals and families experiencing homelessness." While this cost category covers a wide range of general and employment services provided to homeless households, our discussions have highlighted that these services may not be provided at an adequate or efficient level due to funding or programmatic limitations.

2. *Services for homeless households <u>with</u> PSH need = $8,800 to $10,000 per year per household*
   CSH (2018 and 2019) estimated annual supportive service costs for homeless households with PSH need to be $10,000, which reflects "the cost of tenancy support services at a ratio of one case manager to 10 clients for scattered site and one case manager to 15 clients for single site. This figure also includes flexible service funding for people with specific needs not covered by community-based and Medicaid-paid services including additional mental health care, substance use treatment and children's services." Using the Multnomah Spending Dashboard expenses targeted toward the chronically homeless population (who often have PSH needs), we estimate the low-end value service costs to be approximately $8,800, including services categorized in the "Supportive Housing" and "Housing Placement and Retention" general program areas.

3. *Services for homeless households <u>without</u> PSH need = $5,700 per year per household*
   While higher levels of services are typically provided to households with PSH need, homeless households without PSH may also require services. This is estimated by taking

[32] A Home for Everyone. (2017). *Homeless services system program spending*. Retrieved from http://ahomeforeveryone.net/services-spending-dashboard

all costs categorized in "Supportive Housing" and "Housing Placement and Retention" divided by the number of people served (from the Multnomah County Spending Dashboard and internal county documents provided to NERC).

4. *Administration cost for system = 2.4% of all service costs*
   We estimated the administrative costs to oversee the system of providing PSH housing and non-PSH housing as well as associated services. In the absence of an operational system as described that covers the tri-county area, we utilized the administrative costs of the Joint Office of Homeless Services (JOHS) as a proxy. In FY 2017, the administrative costs of JOHS were $1.8 million, with a total service cost of $83.8 million. Note these administrative costs do not include the costs of individual programs, agencies or organizations that serve the homeless population, but rather the umbrella organization(s) that oversee and operate the system as a whole. Additionally, several stakeholders expressed concern that this number was an underestimation.

5. *Administration cost for rent assistance = $800 per household per year*
   Home Forward, Portland's housing authority, estimated that administrative costs were approximately $800 per household for their Short Term Rent Assistance (STRA) in FY 2017.

Cost Scenarios & Results

In order to estimate the total costs to provide housing to the homeless population, we make a few more financial and scenario assumptions:

- Annual inflation rate = 2%[33]
- Annual inflation for construction costs = 6% (CSH, 2019)
- Annual nominal discount rate = 3%
- Time frame for analysis = 2024 to 2033 (10 years)
- Capital costs for public development of housing units occur in 2024 and 2025 (50% in each year)[34]

We also assume that for each homeless household with PSH need, that these households are housed in a combination of public development, which may be new construction or acquisition and rehabilitation of existing units, and/or private lease of rental units. Public development is assumed to occur in years 2024 and 2025, and private lease of rental units are assumed to start in year 2024. We also assumed that these housing units are provided in conjunction with supportive services, which begin as soon as the households are housed.

For each homeless household without PSH need, we assume that these households would be housed through private lease of rental units on the market (via rent assistance) for an average

[33] Federal Reserve Bank of Philadelphia. (2019). Short-Term and Long-Term Inflation Forecasts: Survey of Professional Forecasters. Retrieved from https://www.philadelphiafed.org/research-and-data/real-time-center/survey-of-professional-forecasters/historical-data/inflation-forecasts

[34] While construction will not take place over two years, it makes essentially no difference to the final results of the cost modelling in this case. For that reason, and to make our process as simple and straightforward as possible, we assume two-year construction period. Similarly, any units constructed could be used for households that do or do not need PSH. Their designation as new units was only for simplicity, and consistently with other reports.

of two years with associated services.[35,36] Currently, data for federal or regional rental assistance programs do not provide appropriate guidance for the length of time that households may need rent assistance or supportive services, as many of these programs are limited by the amount of funding or other eligibility requirements.[37]

Table 2.8 details the high and low-cost estimates for housing and services as well as supports and administration costs used to create the cost scenarios. Table 2.9 shows the cost scenarios of providing housing to homeless populations at net present value. For example, Scenario 2 would include 70% public development (developed in 2024 and 2025) and 30% private lease for PSH households with supportive services through 2033, as well as two years of private lease and services for non-PSH households experiencing homelessness with high- and low-cost estimates.

Table 2.8: High and Low-Cost Estimates for Scenario Analysis

	Low	**High**
Development/Acquisition of housing units (one-time)		
● Individual units (0-1 bedroom) ● Family units (2-4 bedrooms)	$190,000	$218,000 $338,000
Operating costs (per year)	$6,000	$8,000
Private lease of housing units (rent assistance) (per year) ● Individual units (0-1 bedroom) ● Family units (2-4 bedrooms)	 $11,352 $14,904	 $18,960 $41,000
Service cost for homeless households with PSH need (per year)	$8,800	$10,000
Service cost for homeless households without PSH need (per year)	$5,700	
Other system support and employment services for all homeless households (per year)	$450	
Administrative costs[38] (per year) For all services For administration of rental assistance	 2.4% $800 per household	

[35] We make this assumption for simplicity. While the housing gap analysis portion of this report provides some insight into how many units of which types might need to be constructed, arriving at a value suitable for inclusion at this point requires analysis beyond the scope of this report.

[36] Gubits, D., Shinn, M., Wood, M., Brown, S. R., Dastrup, S. R., & Bell, S. H. (2018). What Interventions Work Best for Families Who Experience Homelessness? Impact Estimates from the Family Options Study. *Journal of Policy Analysis and Management,* 37(4), 835-866.

[37] Some programs with two-year end dates will allow for renewal; others are more stringent with the 24-month termination date. We chose to use a two-year funding period for the analysis to be consistent with HUD's short-term rent assistance program requirements. Each additional 24-month period would add approximately $1.5 billion - $1.6 billion to the NPV cost.

[38] Note that we received feedback that these rates were likely too low; however, we were not able to conduct additional research to produce a better estimate.

Table 2.9: Cost Scenarios for Housing Homeless Populations in Net Present Value (2019 dollars)

	Housing options (development vs. lease cost scenarios)	Additional costs	Low Cost	High Cost
Scenario 1	100% public development	services, rent assistance, operation, administration costs (2 years for non PSH and 10 years for PSH)	$2,975,323,364	$4,100,532,252.5
Scenario 2	70% public development and 30% private lease		$2,774,792,311	$ 4,092,731,516
Scenario 3	50% public development and 50% private lease		$2,589,051,959	$ 3,921,826,474

Table 2.10 (p. 78) provides additional details of all cost estimates by cost category, expressed in nominal dollars of the year that the expense is occurred. Note that the first two years of costs are high compared to ongoing costs due to the upfront capital costs associated with the public development of housing units, as well as due to the assumed two years of rent assistance and services that are provided to homeless households without PSH need. Because administrative costs are directly proportional to the service costs, they are also higher in the first two years of the cost analysis.

Additional Considerations

While the HUD homelessness definition includes individuals who will soon exit or have recently exited temporary institutions, such as those in the criminal justice and mental health system, our cost estimates do not include these populations. Data do exist for these groups, but they are small in terms of absolute size when compared to the overall homeless population. Additionally, concerns about overlap and likely demographic and household differences indicate that inclusion at this stage is not appropriate.

In addition, one major concern for homeless assistance programs is a low prevailing wage. Many individuals who work in necessary roles to assist with basic and social services (which are generally employed by non-profit organizations, contracted by local government agencies to provide direct services) earn a wage that cannot be considered a “living” or “housing” wage appropriate to the region in which they reside. NERC does not estimate costs for services that reflect an appropriate living wage, because while this is a very important issue, the analysis required would dramatically increase the cost of provision and would require an intensive survey of individual organizations to determine prevailing wages in different roles. Rather, the estimates in this report reflect current wages, as used by previous reports and currently available data. We encourage future projects to take the low prevailing wage into account, and develop better estimates for a living or housing wage in the region.

Major efforts to fund affordable and supportive housing are underway in the tri-county region. Some of these include the Portland Housing Bond passed by voters in 2017 which involves funding for a targeted 600 units affordable to households with 0–30% AMI (area median income), 300 of which will be permanent supportive housing units and 50% of all units will be family sized units. In addition, the Metro Affordable Housing Bond was passed at the end of 2018, creating a fund to build 3,900 affordable housing units, with 1,600 of those dedicated to households 0–30% AMI. The Metro bond includes funding only for the capital cost portions, but not operating or service costs associated with the housing, and will need to be leveraged with additional funding sources for those costs. As these programs are currently ongoing, we did not include the anticipated new units created through the bonds.

Another significant element not addressed by this report is the impact that providing housing assistance at a previously unprecedented level would have on the housing market. Obviously, a massive influx of government assistance into the rental market would have dynamic implications for pricing and supply. It is not possible at this stage to determine those impacts, and this report therefore takes a static approach to market analysis and assumes no change, rather than assuming an uncertain level of change.

Lastly, we have not calculated specific costs related to supporting communities of color. Addressing historic inequities associated with racism are essential in providing housing for people experiencing homelessness, because people of color are disproportionately represented in homelessness rates. These costs may include anti-racism training for service providers, capacity building in organizations that serve people of color but do not specialize in homelessness, more intensive healthcare services, etc. These additional or more intensive supports reflect the unequal treatment that people of color have received. Additional research is needed to understand the magnitude of additional costs which a homelessness services and housing system centered on the needs of people of color would cost.

Table 2.10: Detailed Cost Scenario Estimates by Cost Category (nominal dollars; not adjusted for inflation)

		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Scenario 1[LOW]											
Capital Cost		$665,148,521	$705,057,432	$0	$0	$0	$0	$0	$0	$0	$0
Operating Cost		$16,675,625	$34,018,275	$34,698,640	$35,392,613	$36,100,465	$36,822,475	$37,558,924	$38,310,103	$39,076,305	$39,857,831
Private Lease Cost		$288,104,039	$293,866,120	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (PSH)		$24,946,735	$50,891,339	$51,909,166	$52,947,349	$54,006,296	$55,086,422	$56,188,151	$57,311,914	$58,458,152	$59,627,315
Service Cost (non-PSH)		$126,524,050	$129,054,532	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (all)		$12,540,111	$12,790,914	$2,654,446	$2,707,535	$2,761,686	$2,816,919	$2,873,258	$2,930,723	$2,989,337	$3,049,124
Admin Cost		$21,694,023	$22,738,600	$1,309,527	$1,335,717	$1,362,432	$1,389,680	$1,417,474	$1,445,823	$1,474,740	$1,504,235
Scenario 1[HIGH]											
Capital Cost		$804,317,341	$852,576,381	$0	$0	$0	$0	$0	$0	$0	$0
Operating Cost		$22,234,167	$45,357,700	$46,264,854	$47,190,151	$48,133,954	$49,096,633	$50,078,566	$51,080,137	$52,101,740	$53,143,774
Private Lease Cost		$644,990,632	$657,890,445	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (PSH)		$28,348,562	$57,831,067	$58,987,689	$60,167,442	$61,370,791	$62,598,207	$63,850,171	$65,127,175	$66,429,718	$67,758,312
Service Cost (non-PSH)		$126,524,050	$129,054,532	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (all)		$12,540,111	$12,790,914	$2,654,446	$2,707,535	$2,761,686	$2,816,919	$2,873,258	$2,930,723	$2,989,337	$3,049,124
Admin Cost		$21,775,667	$22,905,153	$1,479,411	$1,508,999	$1,539,179	$1,569,963	$1,601,362	$1,633,390	$1,666,057	$1,699,378
Scenario 2[LOW]											
Capital Cost		$465,603,964	$493,540,202	$0	$0	$0	$0	$0	$0	$0	$0
Operating Cost		$11,672,937	$23,812,792	$24,289,048	$24,774,829	$25,270,326	$25,775,732	$26,291,247	$26,817,072	$27,353,413	$27,900,482
Private Lease Cost		$337,033,800	$343,774,476	$20,704,515	$21,118,606	$21,540,978	$21,971,797	$22,411,233	$22,859,458	$23,316,647	$23,782,980
Service Cost (PSH)		$32,430,755	$50,891,339	$51,909,166	$52,947,349	$54,006,296	$55,086,422	$56,188,151	$57,311,914	$58,458,152	$59,627,315
Service Cost (non-PSH)		$126,524,050	$129,054,532	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (all)		$12,540,111	$12,790,914	$2,654,446	$2,707,535	$2,761,686	$2,816,919	$2,873,258	$2,930,723	$2,989,337	$3,049,124

Admin Cost		$24,141,524	$25,051,842	$3,669,034	$3,742,415	$3,817,263	$3,893,608	$3,971,481	$4,050,910	$4,131,928	$4,214,567
Scenario 2[HIGH]											
Capital Cost		$603,517,184	$639,728,215	$0	$0	$0	$0	$0	$0	$0	$0
Operating Cost		$15,563,917	$31,750,390	$32,385,398	$33,033,106	$33,693,768	$34,367,643	$35,054,996	$35,756,096	$36,471,218	$37,200,642
Private Lease Cost		$740,971,797	$755,791,233	$38,283,093	$39,048,755	$39,829,730	$40,626,325	$41,438,851	$42,267,629	$43,112,981	$43,975,241
Service Cost (PSH)		$36,853,131	$57,831,067	$58,987,689	$60,167,442	$61,370,791	$62,598,207	$63,850,171	$65,127,175	$66,429,718	$67,758,312
Service Cost (non-PSH)		$126,524,050	$129,054,532	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (all)		$12,540,111	$12,790,914	$2,654,446	$2,707,535	$2,761,686	$2,816,919	$2,873,258	$2,930,723	$2,989,337	$3,049,124
Admin Cost		$24,247,661	$25,218,396	$3,838,919	$3,915,697	$3,994,011	$4,073,891	$4,155,369	$4,238,477	$4,323,246	$4,409,711
Scenario 3[LOW]											
Capital Cost		$332,574,260	$352,528,716	$0	$0	$0	$0	$0	$0	$0	$0
Operating Cost		$8,337,812	$17,009,137	$17,349,320	$17,696,307	$18,050,233	$18,411,237	$18,779,462	$19,155,051	$19,538,152	$19,928,915
Private Lease Cost		$350,300,823	$357,306,839	$34,507,526	$35,197,676	$35,901,630	$36,619,662	$37,352,056	$38,099,097	$38,861,079	$39,638,300
Service Cost (PSH)		$37,420,102	$50,891,339	$51,909,166	$52,947,349	$54,006,296	$55,086,422	$56,188,151	$57,311,914	$58,458,152	$59,627,315
Service Cost (non-PSH)		$126,524,050	$129,054,532	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (all)		$12,540,111	$12,790,914	$2,654,446	$2,707,535	$2,761,686	$2,816,919	$2,873,258	$2,930,723	$2,989,337	$3,049,124
Admin Cost		$24,261,269	$25,051,842	$3,669,034	$3,742,415	$3,817,263	$3,893,608	$3,971,481	$4,050,910	$4,131,928	$4,214,567
Scenario 3[HIGH]											
Capital Cost		$431,083,703	$456,948,725	$0	$0	$0	$0	$0	$0	$0	$0
Operating Cost		$11,117,083	$22,678,850	$23,132,427	$23,595,075	$24,066,977	$24,548,316	$25,039,283	$25,540,068	$26,050,870	$26,571,887
Private Lease Cost		$765,502,807	$780,812,863	$63,805,156	$65,081,259	$66,382,884	$67,710,542	$69,064,752	$70,446,048	$71,854,968	$73,292,068
Service Cost (PSH)		$42,522,844	$57,831,067	$58,987,689	$60,167,442	$61,370,791	$62,598,207	$63,850,171	$65,127,175	$66,429,718	$67,758,312
Service Cost (non-PSH)		$126,524,050	$129,054,532	$0	$0	$0	$0	$0	$0	$0	$0
Service Cost (all)		$12,540,111	$12,790,914	$2,654,446	$2,707,535	$2,761,686	$2,816,919	$2,873,258	$2,930,723	$2,989,337	$3,049,124
Admin Cost		$24,383,735	$25,218,396	$3,838,919	$3,915,697	$3,994,011	$4,073,891	$4,155,369	$4,238,477	$4,323,246	$4,409,711

Preventing homelessness and stabilizing housing

In this section, we estimate the potential cost to prevent homelessness and stabilize housing by identifying households who are most susceptible or most at-risk of losing their housing due to their low wages, high housing costs, and rental costs. We estimate the cost of providing universal rent assistance to all low-income renter households (between 0–80% MFI) who are cost burdened (>30% of income spent on rent[39]) or severely cost burdened (>50% of income spent on rent), and the administrative costs for such a program. We then conduct an affordable housing gap analysis that estimates the gap between the supply of housing units (units with rents below 30% of MFI) and demand of housing units (households with income between 0–80% MFI) for affordable housing.[40] We then estimate the availability of rental housing units with rents between 30–80% MFI for this potential rent assistance program.

Median Income

Median income identifies the point where 50% of people make over that amount and 50% make less than that amount. Median income can be calculated for different groupings of people such as different geographies, family size, household size, race, etc. In this report, we use median family income (MFI) in our calculations. Determining who is described as low income depends on what part of the income spectrum a family falls. If you make less than 80% MFI, you would be considered low- or moderate-income.

Background Context

We provide background information here to help illustrate the state of housing (in 2017) in the tri-county area. While the majority of households in the tri-county area own homes, there is a sizeable minority that are renters, as shown in Figure 2.4 for each of the three counties in Metro areas. Multnomah County, where homes are more expensive, displays the highest proportion of renters at 45.7%, while Clackamas County (the least urban of the three) displays the lowest, with less than a third renting.

Certain groups are represented disproportionately in the renting population. On average, the renting population is lower income than the home-owning population (Figure 2.5). Looking at race, households with Black, Native, and Hispanic heads earn a median income lower than the average, as shown in Figure 2.6. The median salary for Black households in the Portland area is half that of the overall median—a significant disparity, and a sign of the current and historic systemic issues faced by this population in the region. Given the lower median incomes for these communities of color, we are not surprised to see higher averages of renters for communities of color; see Figure 2.7. Because of these racial disparities, renters' issues are racial equity issues. This means that strategies to assist renters have impacts that increase

[39] While HUD's definition of "cost burdened" is that the entire cost of housing (including utilities) exceeds 30% of monthly income, we use the term here to mean that only rent exceeds 30%. This is due to the format of the available data: the decision was made to prioritize incorporating unit and family size, over including utility cost. If utilities were included, the impact would be a slightly larger affordability gap.
[40] Because of time constraints and data availability, we only look at gross rent and do not include other common housing cost data, such as utilities.

racial equity within the metro area because non-white groups are more heavily represented in the renting population.

Figure 2.4: Distribution of Owner vs Renter Occupied Households in the tri-county region (Source: 2013-2017 ACS 5-year estimate)[41]

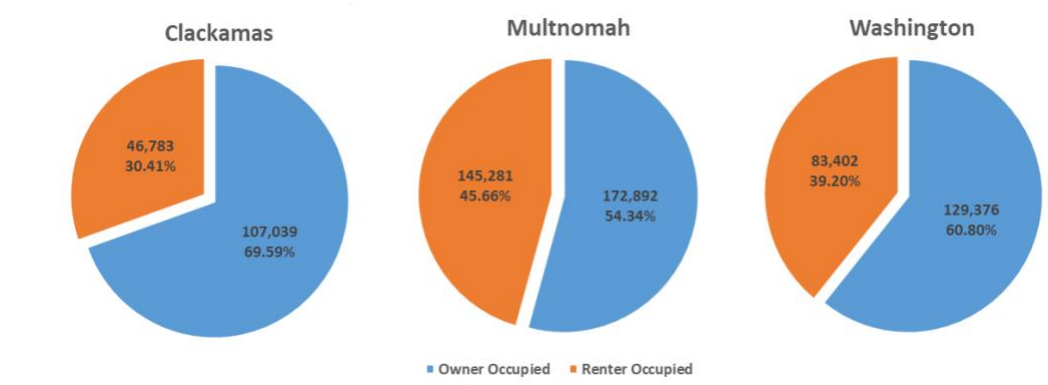
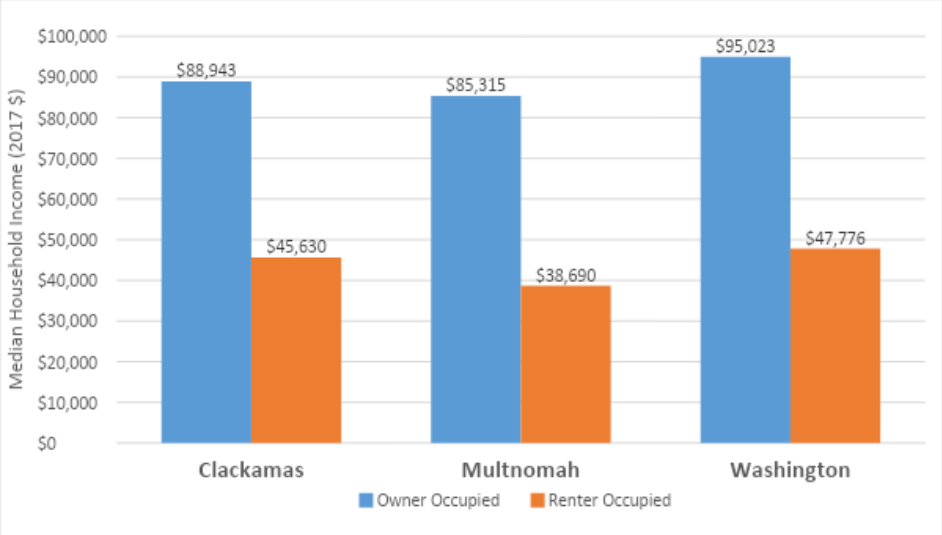


Figure 2.5: Owner vs Renter Occupied Household by Median Household Income in the tri-county region (Source: 2013-2017 ACS 5-year estimate)[42]



[41] U.S. Census Bureau. (2018). *2013-2017 ACS 5-year estimates.* Retrieved from https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2017/5-year.html

[42] U.S. Census Bureau. (2018). *2013-2017 ACS 5-year estimates.* Retrieved from https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2017/5-year.html

Figure 2.6: Median Household Income by Race (Source: 2013-2017 ACS 5-year estimate)[43]

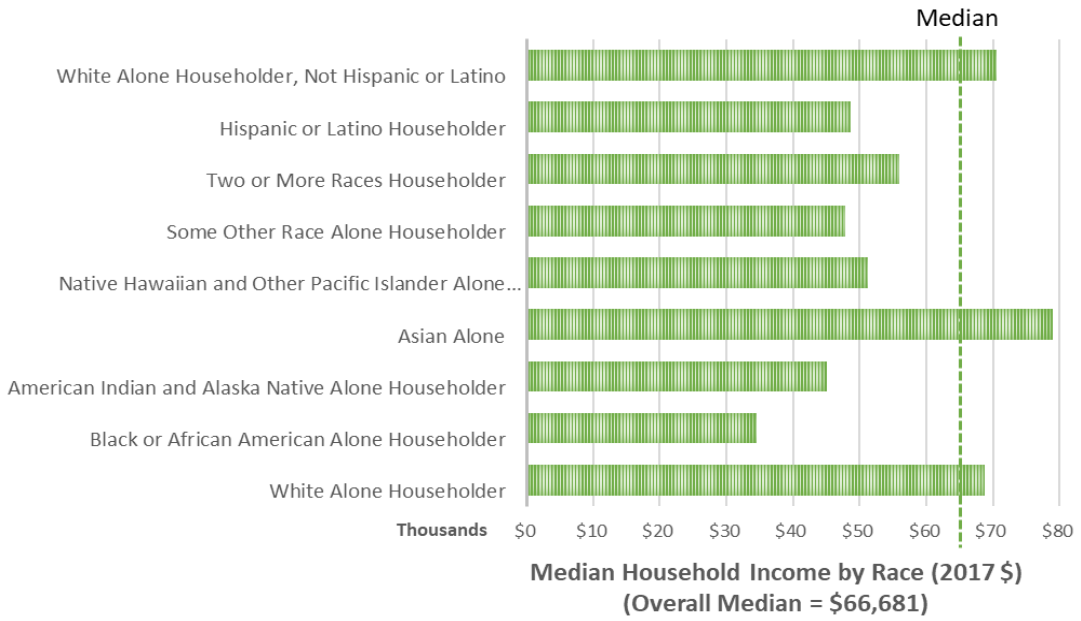
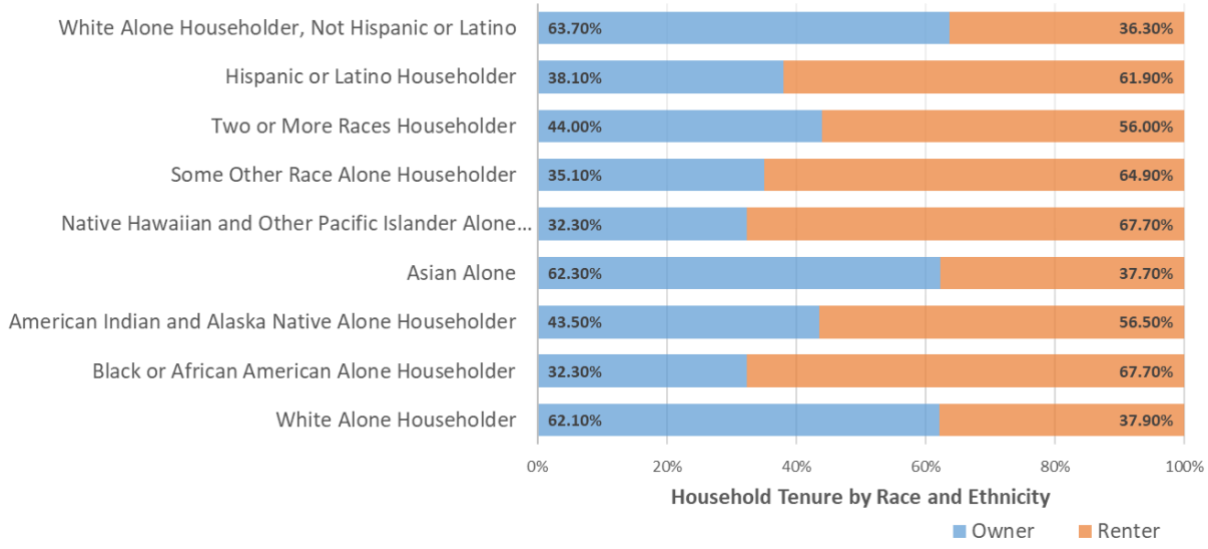


Figure 2.7: Household Tenure (Owner vs Renter) by Race (Source: 2013-2017 ACS 5-year estimates)[44]



[43] U.S. Census Bureau. (2018). *2013-2017 ACS 5-year estimates.* Retrieved from https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2017/5-year.html

[44] Ibid

Costs of Universal Rent Assistance Program

Long-term rent assistance has proven to reduce homelessness as well as provide better health outcomes for community members.[45] In order to estimate the cost of a universal rent assistance program to prevent those households who are most susceptible or most at-risk of losing their housing, we utilized the 2017 ACS 5-year estimates to identify the number of renter households who are *cost burdened* (paying more than 30% of household income in the past 12 months in gross rent and other housing costs) or *severely cost burdened* (paying more than 50% of household income in the past 12 months in gross rent and other housing costs) in each income bracket[46] in the tri-county region (Clackamas, Multnomah and Washington Counties). Severely cost burdened households are a subset of the cost burdened households.

Within each income bracket, we assume that the household size distribution is equivalent to the household size distribution for all renter-occupied housing units in the region[47] and assume that the household income level is equal to the midpoint of the income bracket. Next, we calculate the maximum annual rent (including utilities) that households would be responsible for (30% of their household income). Then, for each income bracket and household size, we estimate the difference between the maximum annual rent and the market rental price (using rent levels shown in Table 2.1 in the *Costs* section, page 56) for the specified housing unit size, which is the estimated amount of rent assistance per household. Table 2.11 summarizes the number of cost burdened and severely cost burdened households within different income levels, and estimates the costs of universal rent assistance, administrative costs and eviction prevention program costs. These costs are expressed in nominal 2017 dollars on an annual basis. The total costs for such a universal rent assistance program include the cost of rent assistance, administrative costs, and eviction prevention program costs. We do not take into account any households already receiving assistance, as the ECONorthwest report did. We have no way of knowing if those supports are adequate, or at what level they will continue.

Table 2.12 summarizes the total costs of a universal rent assistance program for years 2024 to 2033, the same analysis timeframe as the previous sections of this report. We take the highest and lowest estimates of rent assistance costs from Table 2.11 to construct Table 2.12, which includes nominal costs for each year (incorporates inflation) and net present values for each year in 2019 dollars. The estimates indicate that this type of program would cost between $10.7 billion and $21 billion (2019$) to address all cost burdened households, and between $8.7 billion and $16.6 billion for all severely cost burdened households for the years of 2024 to 2033 (the severely cost burdened group is a subset of the cost burdened group). While this cost encompasses all households earning from 0–80% MFI, it is useful to consider how this money is distributed between the income tiers: see Table 2.13 for a summary of NPV estimates over ten

[45] Fleary, S.A., Joseph, P., Zhang, E. & Quirion, C. (2019). “They give you back that dignity”: Understanding the intangible resources that make a transitional house a home for homeless families, *Journal of Social Distress and the Homeless*, 13(1), 835-866.
[46] U.S. Census Bureau. (2018). *2013-2017 ACS 5-year estimates.* Retrieved from https://www.census.gov/programs-surveys/acs/technical-documentation/table-and-geography-changes/2017/5-year.html
[47] Ibid

years for 0–30% MFI and 0–60% AMI, in addition to the 0–80% MFI estimates repeated from Table 2.12.

Table 2.11: Cost of Universal Rent Assistance Program (2017 dollars) by Income Level and Cost Burden, 2017

	0-30% MFI	30-60% MFI	60-80% MFI	Total (0-80% MFI)
Number of **severely cost burdened** renter households (>50% of income on rent)	44,953	24,073	13,551	82,576
Cost of universal rent assistance (2017 $)				
HUD FMR (2017)	$ 508,634,283	$ 187,090,274	$ 3,091,894	$ 698,816,451
Portland State of Housing (2017) city avg	$ 604,426,818	$ 235,114,342	$ 39,427,039	$ 878,968,199
Portland State of Housing (2017) neighborhood avg high	$ 862,560,407	$ 437,303,469	$ 89,172,775	$ 1,389,036,652
Cost of administering rent assistance program (2017)	$ 35,962,148	$ 19,258,271	$ 10,840,454	$ 66,060,873
	0-30% MFI	**30-60% MFI**	**60-80% MFI**	**Total (0-80% MFI)**
Number of **cost burdened** renter households (>30% of income on rent)	51,650	31,514	23,875	107,039
Cost of universal rent assistance (2017 $)				
HUD FMR (2017) Rents	$ 586,347,728	$ 249,359,111	$ 22,098,684	$ 857,805,523
Portland State of Housing (2017) City Avg Rents	$ 693,119,557	$ 311,599,075	$ 82,216,186	$ 1,086,934,818
Portland State of Housing (2017) Neighborhood High Rents	$ 997,824,502	$ 583,603,877	$ 177,792,823	$ 1,759,221,203
Cost of administering rent assistance program	$ 41,319,994	$ 25,210,856	$ 19,100,248	$ 85,631,098

Table 2.12: Detailed Costs of Universal Rent Assistance Program in Nominal and Net Present Value (2024–2033), 0–80% AMI

			2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total NPV
Severely Cost Burdened	LOW	(nominal)	$ 875,656,983	$ 893,170,123	$ 911,033,525	$ 929,254,196	$ 947,839,280	$ 966,796,065	$ 986,131,987	$ 1,005,854,626	$ 1,025,971,719	$ 1,046,491,153	
	HIGH		$ 1,668,503,035	$ 1,701,873,096	$ 1,735,910,558	$ 1,770,628,769	$ 1,806,041,345	$ 1,842,162,172	$ 1,879,005,415	$ 1,916,585,523	$ 1,954,917,234	$ 1,994,015,578	
	NPV-LOW	(2019 $)	$ 833,157,574	$ 841,406,658	$ 849,737,417	$ 858,150,659	$ 866,647,200	$ 875,227,866	$ 883,893,488	$ 892,644,909	$ 901,482,977	$ 910,408,551	**$ 8,712,757,300**
	NPV-HIGH		$ 1,587,523,388	$ 1,603,241,441	$ 1,619,115,119	$ 1,635,145,962	$ 1,651,335,526	$ 1,667,685,382	$ 1,684,197,119	$ 1,700,872,338	$ 1,717,712,658	$ 1,734,719,714	**$ 16,601,548,646**
Cost Burdened	LOW	(nominal)	$ 1,079,892,562	$ 1,101,490,413	$ 1,123,520,221	$ 1,145,990,625	$ 1,168,910,438	$ 1,192,288,647	$ 1,216,134,420	$ 1,240,457,108	$ 1,265,266,250	$ 1,290,571,575	
	HIGH		$ 2,115,335,833	$ 2,157,642,549	$ 2,200,795,400	$ 2,244,811,308	$ 2,289,707,535	$ 2,335,501,685	$ 2,382,211,719	$ 2,429,855,953	$ 2,478,453,072	$ 2,528,022,134	
	NPV-LOW	(2019 $)	$ 1,027,480,719	$ 1,037,653,795	$ 1,047,927,595	$ 1,058,303,116	$ 1,068,781,364	$ 1,079,363,358	$ 1,090,050,124	$ 1,100,842,700	$ 1,111,742,132	$ 1,122,749,480	**$ 10,744,894,383**
	NPV-HIGH		$ 2,012,669,463	$ 2,032,596,883	$ 2,052,721,605	$ 2,073,045,581	$ 2,093,570,785	$ 2,114,299,208	$ 2,135,232,864	$ 2,156,373,783	$ 2,177,724,019	$ 2,199,285,643	**$ 21,047,519,834**

Table 2.13: NPV of Rent Assistance from 2024 to 2033 for 0–30%, 0–60%, and 0–80% AMI

Burden Level	Income Level	Low	High
Severely Cost Burdened	0-30% AMI	$ 6,224,401,436	$ 10,269,558,832
	0-60% AMI	$ 8,582,838,082	$ 15,487,778,030
	0-80% AMI	$ 8,712,757,300	$ 16,601,548,646
Cost Burdened	0-30% AMI	$ 7,173,855,077	$ 11,876,780,908
	0-60% AMI	$ 10,312,020,516	$ 18,835,157,950
	0-80% AMI	$ 10,744,894,383	$ 21,047,519,834

Affordable Housing Gap Analysis

Based on recent data, we identified a gap that exists between the demand for affordable housing units and the supply available. This means that there are not enough housing units available for people to pay 30% or less of their income to housing. People paying 30% or less of their income on housing costs is considered the best way to promote housing security and stability along with better health outcomes.[48, 49] Adding a further squeeze on the supply of affordable housing, some housing units at the lower end of the housing market may be rented by people who could afford to pay more and are instead paying substantially less than 30% of their income, further decreasing supply at lower-income levels.

The affordability housing gap analysis for this report was constructed using federal data sources: the US Department of Housing and Urban Development's Comprehensive Housing Affordability Strategy (HUD CHAS) dataset for 2015 in the Portland tri-county area (Clackamas, Multnomah, and Washington counties)[50], and American Community Survey (ACS) data from the five-year averages for 2013–2017 for the same counties.[51] Additionally, we used HUD median family income information for the Portland-Vancouver-Hillsboro MSA for 2017 to establish income brackets equal to 0–30%, 30–50%, and 50–80% MFI.[52]

Housing Supply and Demand

In order to determine the affordable housing gap, we first estimate the supply by using the HUD CHAS dataset from 2015 (specifically, questions 15C and 14B) to arrive at the number of housing units in the tri-county area at various levels of cost burden, including the income level of the renter (in terms of percent of AMI) and number of bedrooms. These data include both units that are occupied, and units that are not, and these are summed to arrive at a value for supply.

Demand is determined using ACS five-year average data: first, household sizes within various income brackets are assumed to match overall household size distribution. Next, household incomes are assumed to fall at the midpoint of each income bracket, so households earning, for example, $20,000–$24,999 are included at $22,500. Using these values, the number of households at 0–30%, 30–50%,[53] and 50–80% MFI are estimated using HUD MFI values for

48 Bailey, K. T., Cook, J. T., Ettinger de Cuba, S., Casey, P. H., Chilton, M., Coleman, S. M., & Frank, D. A. (2016). Development of an index of subsidized housing availability and its relationship to housing insecurity. *Housing Policy Debate*, *26*(1), 172-187.

49 Meltzer, M., & Schwartz, A. (2016) Housing affordability and health: Evidence from New York City. *Housing Policy Debate*, (26:1), 80-104.

50 HUD Office of Policy Development and Research. (2019). Consolidated planning/CHAS data. Retrieved from https://www.huduser.gov/portal/datasets/cp.html

51 2013-2017 ACS 5-year average tables SE:A14003B – Household Income in the Past 12 Months (in 2017 Inflation-Adjusted Dollars) (Renter-Occupied Housing Units) and SE:A100002B – Household Size (Renter-Occupied Housing Units).

52 Portland Housing Bureau. (n.d.). *2017 Median income for a family of four in the Portland-Vancouver-Hillsboro MSA*. Retrieved from https://www.portlandoregon.gov/phb/article/651806

53 Note that here the range is 30-50% AMI, while elsewhere this report uses 30-60% MFIas a bracket. This is due to differences in data format from various sources: the data obtained from the ACS questions breaks at 50% rather than 60%.

different household sizes. Finally, we assume that households with one to two members will require a studio or one-bedroom unit, households with three members will require two-bedroom units, and households with four or greater members will require greater than two bedrooms.

Based on these figures, identifying the gap is a matter of finding the differences in supply and demand at said levels and sizes. Additionally, we conduct spatial analysis to find gaps by income level and unit size by area.

These housing unit shortages are not distributed evenly across income levels, or in geographic terms. Households are free to rent units that do not amount to 30% of their income as well. That means that better-off households may choose units that cost less than that. Adding additional challenges for low-income households, wealthier households are more likely to obtain units by virtue of the rental approval process. All of these factors mean that identifying the shortage is a complicated and uncertain process.

Understanding spatial aspects for housing markets are important. While one area might have more affordable units at a given price level, they may not be appropriate locations for people who are transit-dependent or reliant on services that are not evenly dispersed around the region. Further out locations may not be opportunity-rich neighborhoods, where ample green space and health care are typically located.

The table below (Table 2.14) estimates the change in affordable units by county over the two-year period following the data year used, which is 2015. Despite adding 2,243 affordable housing units over two years, the affordable housing gap remains. This is partially due to uneven geographic distribution of added units and varying demand for different sizes of units. Per our analysis, Clackamas County appears to have lost affordable units between 2015 and 2017. Recently described slow-downs in the housing market are unlikely to create an increased supply of affordable housing. Bates (2017) found that vacancy rates in high quality ("five stars") apartments was much higher than naturally occurring affordable housing.[54]

Table 2.14: Regulated Affordable Housing Units (Source: 2017 Regional Inventory of Regulated Affordable Rental Housing[55])

	Regulated Affordable Housing Units			
	2015	**2017**	**Change**	**% Change**
Clackamas	3,937	3,804	(133)	-3.38%
Multnomah	24,989	26,625	1,636	6.55%
Washington	7,307	8,047	740	10.13%
Total	36,233	38,476	2,243	6.19%

[54] Seyoung, S. & Bates, L. (2017). Preserving housing choice and opportunity: A study of apartment building sales and rents. Urban Studies and Planning Faculty Publications and Presentations. Retrieved from https://pdxscholar.library.pdx.edu/cgi/viewcontent.cgi?article=1203&context=usp_fac

[55] Oregon Metro. (2019). *Regional inventory of regulated affordable rental housing*. Retrieved from https://www.oregonmetro.gov/regional-inventory-regulated-affordable-housing

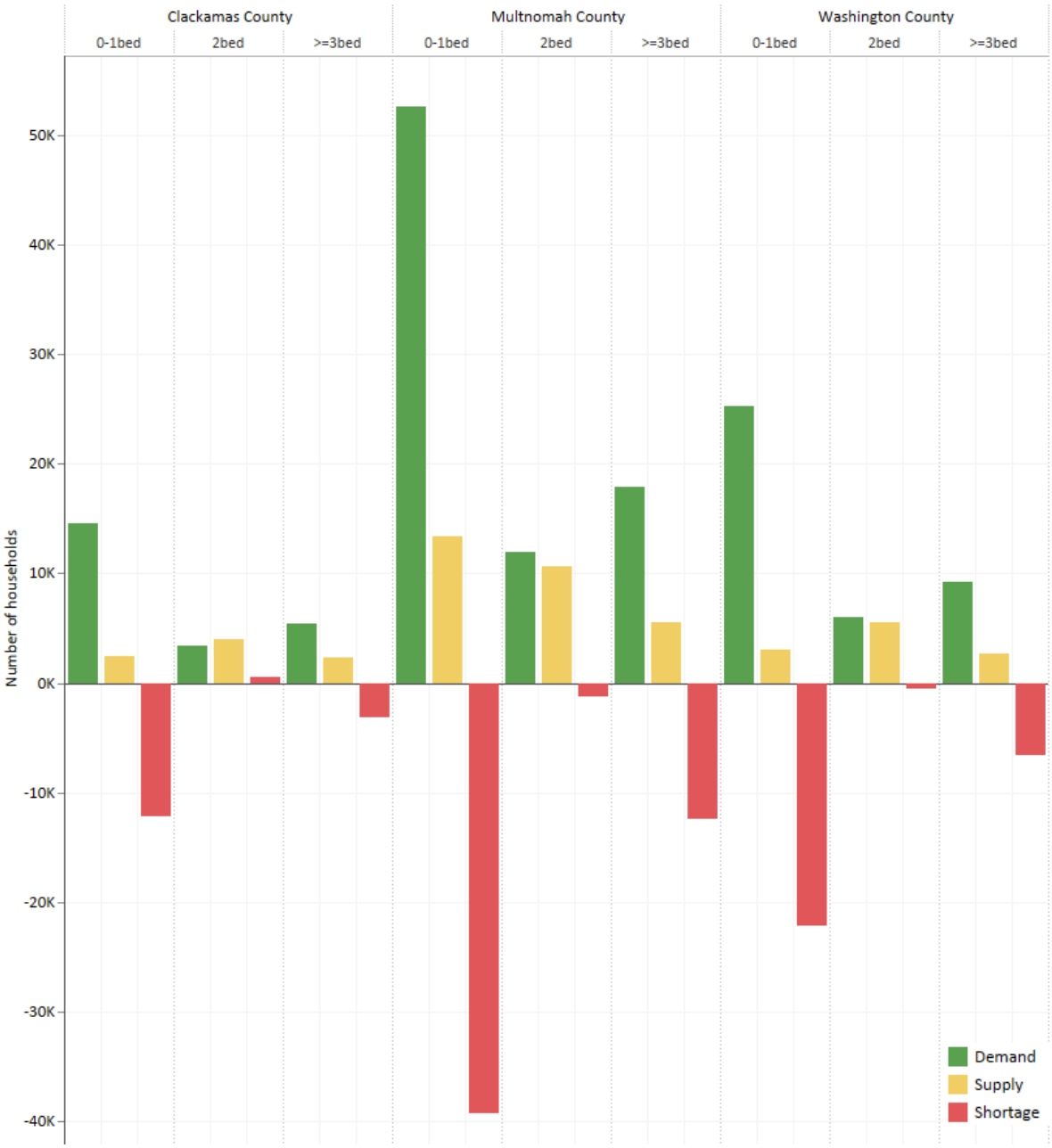
Figure 2.8 shows the estimated shortages at various income levels in each county, and Figure 2.9 shows estimated shortages by unit size (relying on the family size assumptions described above) and county. While the shortage for Multnomah County appears to signify a unique problem in that area, this is due to the larger number of households and units within this densely urban area, and the housing shortage on a per capita basis is comparable in the other counties.

Figure 2.8: Affordable Housing Gap by County and by Household Income[56]

[56] Assumes households will not pay more than 30 percent of their income.

Demand	8,414	5,704	9,277	39,790	16,930	25,797	15,049	9,723	15,672
Supply	3,727	2,656	2,258	16,785	6,831	5,871	5,057	3,617	2,609
Shortage	-4,687	-3,048	-7,019	-23,005	-10,099	-19,926	-9,992	-6,106	-13,063

Figure 2.9: Affordable Housing Gap, Estimated Shortages by Unit Size by County

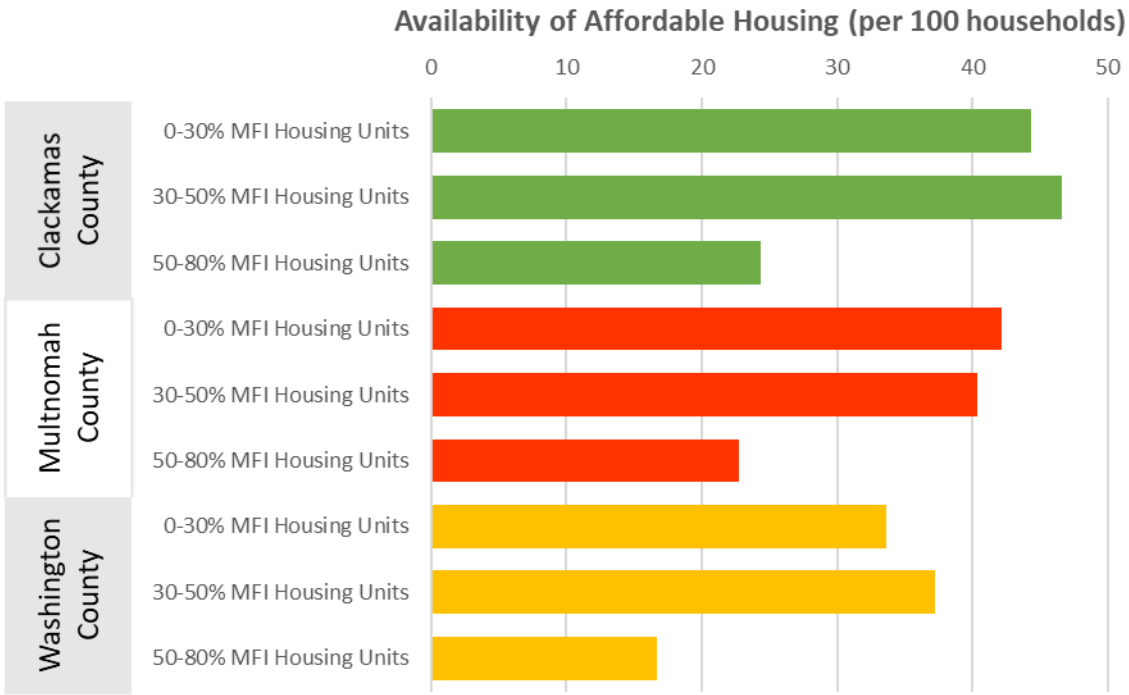


Demand	14,521	3,453	5,421	52,629	11,970	17,918	25,220	5,975	9,249

Supply	2,389	3,949	2,303	13,329	10,676	5,482	3,083	5,498	2,702
Shortage	-12,132	496	-3,118	-39,300	-1,294	-12,436	-22,137	-477	-6,547

Figure 2.10 breaks the shortage down by showing how many units are available at different income levels per hundred households and by county. All counties are suffering comparable shortages. Washington County has a more severe shortage than Multnomah at 0-50% MFI

Figure 2.10: Availability of Affordable Housing (per 100 households) by County and by Household Income



Figures 2.11 and 2.12 show mapped availability of affordable housing by census tract. Redder areas have fewer affordable units, while pink or blue areas have a lower shortage of affordable units are various income levels. Note that households may move from one census tract to another (although it is likely that jobs and schools make large moves difficult and undesirable). These maps serve as a static image of the situation a few years ago (based as they are in data from the 2015 HUD CHAS, and 2013-2017 five-year average ACS data). Some areas showing little to no shortage may actually have low population.

Figure 2.11: Spatial distribution of available rental housing units for 0–80% MFI Households by Census tract (per household)

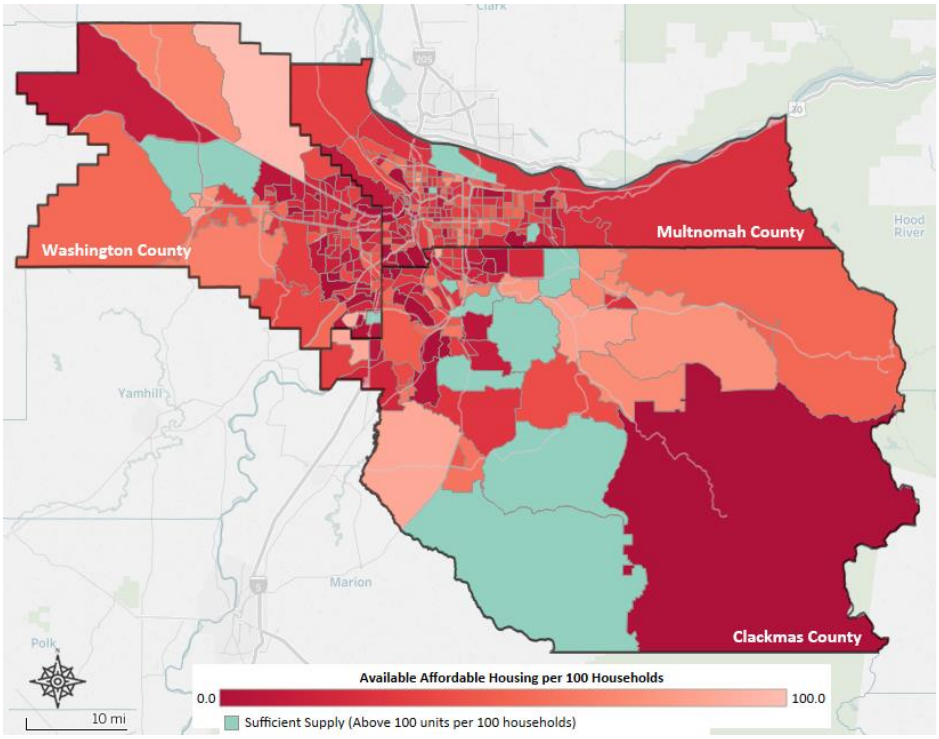
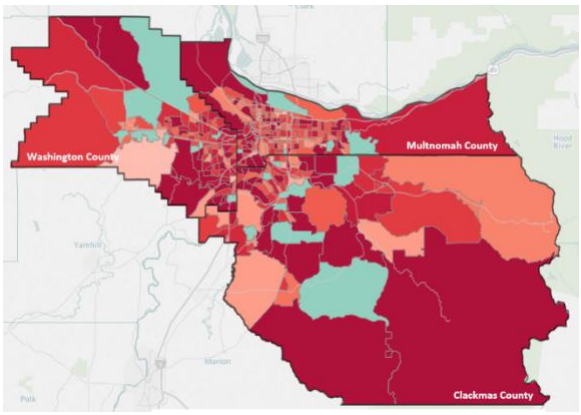
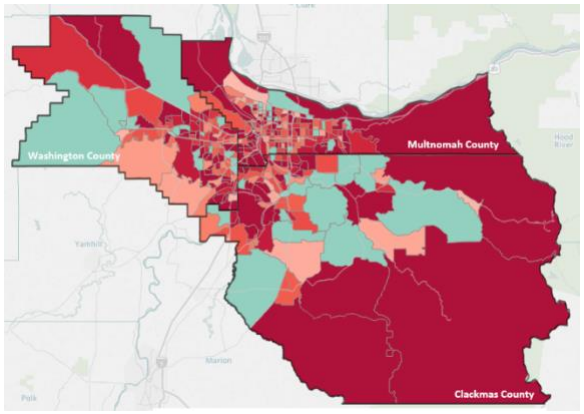


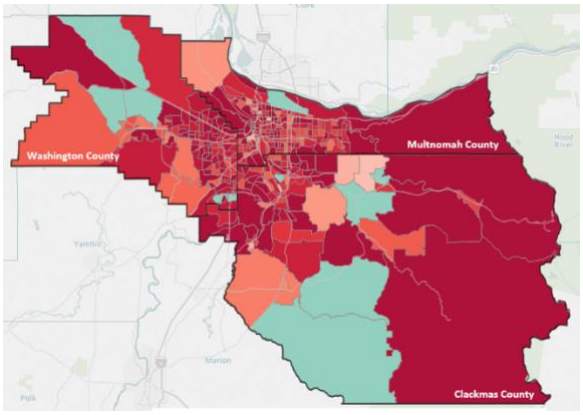
Figure 2.12: Spatial distribution of available affordable rental housing units by Census tract and by household income



(a) Affordable housing for 0-30% MFI households



(b) Affordable housing for 30-50% MFI households



(c) Affordable housing for 50-80% MFI households

Note: Legend is based on number of affordable housing per 100 households between 0 and 100 (any shade of red indicates a shortage, while census tracts with sufficient supply of affordable housing are designated in green),

Affordable Housing Gap with Rent Assistance Program

To help understand how to support the number of households needing support to avoid homelessness or obtain housing security, we examined how a large, long-term rent assistance program would help close the gap for households living in deep housing insecurity. To conduct this analysis, we assumed that fair market rents would not change, even with the introduction of a large number of vouchers. This is unlikely to happen, but we chose to conduct this exercise to give a sense of the shortage of affordable units. Remember that we only included gross rent, and no other housing costs, in this part of the analysis. This means that there may be even fewer units available, and that people from low-income backgrounds experience more difficulty accessing available housing for a range of reasons.

After establishing the shortage of affordable rental housing units in the tri-county region, we identified available rental housing units for a potential rent assistance program, i.e., units that are not affordable at their lease rate to people who are low-income. To do this, we utilized the same procedure as the affordable housing gap analysis described above (identifying the mismatch between supply and demand). This time, we focused on available rental housing units for people who are 30–80% cost burdened and vacant units. In this scenario, a housing assistance voucher has been applied, meaning that they can now afford units they could not previously afford without this rent assistance. Table 2.20 compares the unmet demand for rental units to the available rental units that are unaffordable at state lease rates, by income level and by number of bedrooms. The final section of the table shows the percentage of unmet demand that can be fulfilled by the available rental units currently at 30-80% cost burden (not including vacant units). In other words, it shows the amount of housing stock that exists and does not need to be constructed if a voucher program is implemented, again assuming no changes in market rates, and landlords and developers work with government entities and community development corporations to accept all tenants.

If a universal rent assistance program to help prevent homelessness were implemented, these estimates provide a look at whether households might be able to find rental units with the provided assistance. In most income levels and housing unit sizes, we find that there are sufficient rental units to be subsidized through such a program. However, in terms of available units, even after making housing vouchers available, shortages still exist in the 0-1 bedroom category for 0-30% and 50-80% MFI levels, and in the >3 bedroom category for households that earn 30-50% MFI. However, these shortages could be corrected by, for example, allowing individual households to use vouchers on two-bedroom units.

Table 2.15: Housing Unit Shortage, Post Universal Housing Voucher

	0-30% AMI	30-50% AMI	50-80% AMI	Vacant
Unmet Demand for Affordable Rental Units				
0-1 bedrooms	(29,439)	(11,163)	(22,895)	
2 bedrooms	(5,295)	(6,087)	(5,178)	
>3 bedrooms	(10,131)	(8,093)	(5,045)	
Available Rental Units (Unaffordable, 30-80% Cost Burden)				
0-1 bedrooms	15,420	15,970	7,180	1,885
2 bedrooms	11,165	16,055	21,340	3,200
>3 bedrooms	11,060	6,545	10,720	1,470
Ratio of Available Rental Units to Unmet Demand				
0-1 bedrooms	52.38% (14,019 units short)	143.07% (4,807 unit surplus)	31.36% (15,715 units short)	
2 bedrooms	210.85% (5,870 unit surplus)	263.76% (9,968 unit surplus)	412.12% (16,162 unit surplus)	
>3 bedrooms	109.17% (929 unit surplus)	80.87% (1,548 units short)	212.49% (5,675 unit surplus)	

There are some important issues to consider about Table 2.20. The available rental units may also not be located evenly throughout the region. Where an adequate supply of larger housing units might exist (e.g., two bedrooms), assistance could be provided to put single adults into that housing. Note that the data used here produces static estimates. Our analyses provide guidance for the general magnitude of affordable housing shortages and available rental units, but should not be taken as an accurate depiction of the extremely dynamic housing market. Further, these calculations are based only on gross rent and do not include other housing costs, such as utilities. Perhaps most importantly, households are not always able to use rent vouchers for a range of reasons—not enough housing available, too far from mass transit, racial discrimination, prior eviction, landlord screening practices, etc.[57]

Limitations and Considerations

There are also multiple caveats to the findings here beyond the general data reliability issues common with ACS and other data sets. Housing markets have submarkets that function differently than traditional supply and demand models might explain. Some submarkets are unlikely to ever be produced by a traditional market (e.g., why would a developer build housing that they could not at least recover the costs of) without some type of government intervention. Earlier, we discussed spatial limitations of some of these analyses. For instance, considering where we want different types of housing must be considered when reviewing findings like those presented in Table 2.20. A simple interpretation of the table might mean that people think we have an adequate supply of housing for people who are 30–80% cost burdened for certain unit sizes once rent assistance is made available. However, further analyses must be conducted to determine if this housing is located in opportunity rich areas. Clustering all affordable units on the outskirts of the region away from mass transit is not an equitable solution. The City of Portland PHB provides detailed analyses of housing unit available by neighborhood to emphasize the importance of this spatial view.[58]

Our analyses also do not take into account the quality of available affordable housing. It is not enough to provide housing, as we should be providing quality and safe affordable housing. Providing quality, affordable housing appropriately located to services and opportunities will likely increase costs from what we provide next. Between spatial distribution and housing quality, we may have less available or vacant affordable housing than it seems.

We focus on renter households because they are typically the most precariously housed. Further research should examine the precariousness of homeowners in a burgeoning housing market, especially as we ask more from taxpayers in helping to address the negative repercussions of escalating real estate values to moderate and low-income community members.

[57] Turner, M. (2003). Strengths and weaknesses of the housing voucher program. *Urban Institute.* Retrieved from https://www.urban.org/sites/default/files/publication/64536/900635-Strengths-and-Weaknesses-of-the-Housing-Voucher-Program.pdf

[58] Portland Housing Bureau. (2017). *State of Housing in Portland.* Retrieved from https://www.portlandoregon.gov/phb/article/681253.

We do not estimate the cost (or need) of households that are discussed in the homeless prevention section that may need some type of temporary or permanent supportive services. We focus only on the cost of providing housing, and administering these housing programs.

Lastly, we do not estimate the cost of creating new units to meet demand after rent assistance is made available. The estimates for developing or acquiring new units discussed earlier in this section could be used to estimate those costs.

Why Don't Our Numbers Match Other Reports?

Numbers related to homelessness do not share consistent definitions and sometimes rely on weak data sources and collection procedures. In addition, more robust data sources such as those put out by the US Census have estimates and counts that vary from year to year. Further, with US Census data in particular, when we talk about the housing needed for homelessness, we are talking about a small portion of the total housing data for the region. When using US Census data estimates (instead of the raw count data gathered every 10 years), the data become more unreliable as you disaggregate it. But, the primary reason for major differences in number of households or cost estimates between reports is which populations are identified for support and their size.

For instance, HUD homelessness counts for 2017 Point-in-Time count (PIT) for the three counties was about 6,000 people, and is just for one night during the year. Our count includes an annualized PIT count for people living unsheltered, and annualized shelter data. Our estimates also include an estimate for doubled-up families and unaccompanied youth. This means that our 38,000 person estimate for 2017 is for people who have experienced homelessness across the year, and includes a broader definition than other reports driven by HUD reporting.

Turning to households that are housing insecure or at risk of homelessness, ECONorthwest estimates 56,000 households are at risk of homelessness, and that it would cost about $550 million annually to serve them. ECONorthwest includes Clark County in Washington State in their calculations, while we limit ours to the 3 counties on the Oregon side. Most importantly, they only included households up to 50% MFI and more than 50% rent burdened who were not receiving rent assistance, a classification that HUD describes as worst-case housing needs. We instead included households making up to 80% MFI, and more than 30% rent burdened. We also opted to be more conservative and not assume existing service levels continue forward. Our additional concern here was that we had no way of knowing how many households were receiving adequate support. Several stakeholders pointed out that just because someone was receiving assistance, it may not be an adequate amount of assistance. Further, research consistently demonstrates that households at above 30% of housing costs are at risk of homelessness and displacement.

Providing emergency shelters

Emergency shelters are defined by HUD as places for homeless individuals to inhabit temporarily, that do not require said individuals to sign any kind of lease or rental agreement. There are generally three essential types: conventional shelters, which provide a bed to sleep in and access to services; day centers, where individuals can spend time and receive services during daytime hours but may not sleep overnight; and severe weather shelters, which operate as extensions of the previous two types in the event of weather that endangers those on the streets and necessitates increased capacity.

Of course, if all homeless families and individuals or at risk of becoming homeless are permanently housed, the need for emergency shelters will be dramatically reduced. This report does not undertake the task of assuming exactly how much the need would decrease.

In the fiscal year of 2017, over 9,000 individuals (29.5% are in families) were served in emergency shelters in Multnomah County, for a total of $15,368,395 in services. The largest portion of spending ($12,668,477) was on conventional shelters, with $1,302,011 going to day centers and $182,586 to severe weather shelter provision. While detailed spending data is not available for Clackamas and Washington County, if we assume that it costs the same amount to serve individuals in those counties, we can estimate total and per capita spending in each. In Clackamas County, according to data provided for the Annual Homeless Assessment report (AHAR) to Congress over the year between October 1st 2016 and September 30th 2017, 619 persons (17% are in families) were served in emergency shelters, implying an expense of $1,056,633. In Washington County over the same time period, data collected for the same purpose identifies 480 individuals served (85% are in families), for an estimated total expense of $819,360. Summing for the tri-county region, the estimated total spending on emergency shelters is $17,244,388. This number can be considered low, as it does not include the cost of capital: i.e., the actual costs of shelter construction. Multnomah County budgeted an additional $7.4M for shelter construction expenses in 2017 alone, and this expense and others like it from various sources are not included in the above estimates.

While we utilize Multnomah County spending on emergency shelters as a proxy to extrapolate per capita costs in Clackamas and Washington Counties, it is important to note that the household composition of those served in emergency shelters ranges widely across geographic areas, and can impact the costs of providing emergency shelters and services. These differences may be attributed to pre-existing differences in the overall homeless population household composition in each of the three counties. Other contributing factors may include the specific type of shelter that is available, whether there is programming specifically targeting families, or a potential self-selection among those who are more likely to seek shelter and assistance.

Conclusions

This section has laid out potential costs for massive social programs, for the purpose of enhancing public discourse and providing initial benchmarks for the consideration of policies like these. A secondary purpose of this document is to emphasize the considerable uncertainties faced when dealing with data related to the constantly shifting population experiencing homelessness or housing insecurity at any given time. For that reason, all numbers provided here are, of course, estimates. Without knowing the size of the true population, costs are unknown. Additionally, there are few reports of this kind that approach hypothetical scenarios with the goal of addressing the fullest possible scope of the target population, and a high level of assistance, rather than focusing on a certain amount of feasible revenue or policy change.

By using the most straightforward and replicable approach possible, based on previous local work in the field and expert consultation, this section first estimates that there are over 38,000 homeless individuals in the Portland tri-county area, including those who are doubled up in housing situations that are not intended to hold multiple households. Additionally, it is estimated that over 5,600 of those individuals suffer from disabilities that require permanent supportive housing.

The section estimates a cost of $2.6 billion to $4.1 billion to house all homeless individuals who require permanent supportive housing for ten years, and to provide complete rent assistance and services to those who do not require permanent supportive housing for two years.

Next, the potential costs of issuing universal housing vouchers in order to assist those at risk of becoming homeless are assessed. A framework based on ACS and HUD data is implemented to estimate the costs to providing said vouchers (which cover all housing expenses in excess of 30% of a household's income) at varying levels of income and rent burden. Administrative costs for the rent assistance program are included as well. The final estimates range from $6.2 billion over ten years, if only those earning lower than 30% of the MFI and paying greater than 50% of their rent are included; up to $21 billion, if the hypothetical rent assistance includes all households earning up to 80% MFI and paying more than 30% of their income to rent.

Finally, the supply and demand of affordable rental housing in the tri-county area are determined, in order to locate specific areas of shortage and surplus based on income level and housing type and size. All of these elements provide a large-scale, top-end set of costs and economic estimates that can be used to inform public discourse and prioritization.

In the next section we examine revenue-raising options for the local region.