DAS
DEPARTMENT OF ADMINISTRATIVE SERVICES

Oregon Housing Needs Analysis Draft Methodology

September 2024

Table of Contents

AMI: Area Median Income: Every year the U.S. Housing and Urban Development (HUD) produces a median family income to determine affordability thresholds for a given area (some geographies are HUD-specific). Affordable housing projects' income limits, rent limits, loans, and other characteristics will be based on this income limit. This term is synonymous with Median Family Income or MFI.[1]

Cost Burdening / Severe Cost Burdening: The term "cost burdening" refers to households who pay more than 30% of their income on housing costs. The term "severe cost burdening" is used for households paying more than 50% of their income on housing. These terms come from HUD, and include mortgage payments and interest, or rent, utilities, and insurance.

DAS: Department of Administrative Services

DLCD: Department of Land Conservation and Development

Goal 10 (Housing): One of Oregon's 19 statewide land use planning requirements relating to planning for 20 years of housing need. Cities with populations larger than 10,000 people (as well as all cities and certain urban, unincorporated communities in Tillamook County) must abide by Goal 10 planning requirements.

Goal 14 (Urbanization): One of Oregon's 19 statewide land use planning requirements relating to planning for 20 years of land need inside an urban growth boundary (see term below). Jurisdictions with populations larger than 10,000 people must abide by Goal 14 planning requirements.

HB: House Bill (year)

Housing Affordability: Housing is considered "affordable" to a household if it spends less than 30% of its pre-tax income on housing costs (see Cost Burdening).

HSC: Housing Stability Council: The advisory body overseeing the Oregon Department of Housing and Community Services.

HUD: U.S. Department of Housing and Urban Development

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[1] A note on AMI vs MFI from HUD: "HUD estimates Median Family Income (MFI) annually for each metropolitan area and non-metropolitan county. The metropolitan area definitions are the same ones HUD uses for Fair Market Rents (except where statute requires a different configuration). HUD calculates Income Limits as a function of the area's Median Family Income (MFI). The basis for HUD's median family incomes is data from the American Community Survey, table B19113 - MEDIAN FAMILY INCOME IN THE PAST 12 MONTHS. The term Area Median Income is the term used more generally in the industry. If the term Area Median Income (AMI) is used in an unqualified manor, this reference is synonymous with HUD's MFI. However, if the term AMI is qualified in some way - generally percentages of AMI, or AMI adjusted for family size, then this is a reference to HUD's income limits, which are calculated as percentages of median incomes and include adjustments for families of different sizes." Source: HUD. 2018. "FY 2018 Income Limits Frequently Asked Questions." https://www.huduser.gov/portal/datasets/il/il18/FAQs-18r.pdf

LCDC: Land Conservation and Development Commission: The governing body overseeing the Oregon Department of Land Conservation and Development.

OEA: Oregon Office of Economic Analysis

OHNA: Oregon Housing Needs Analysis

OHCS: Oregon Housing and Community Services Department

PUMA: Public Use Microdata Area: a geographic area defined by the U.S. Census Bureau to have roughly 100,000 people and to (typically) align with County boundaries. PUMA sizes vary depending on the population density. Oregon has 31 PUMAs, with most PUMAs located in the more densely populated western part of the state.

PUMS: Public Use Microdata Sample: Data files produced by the U.S. Census Bureau that allow users to create custom analyses that are not available through pre-tabulated data tables. These data are produced for PUMA geographies.

Regulated Affordable Housing: Housing that is rent- or income-restricted to be affordable to households earning certain incomes. These units typically have public support (funding) in exchange for affordability requirements. Housing is considered "affordable" to a household if it spends less than 30% of its pre-tax income on housing costs (see Cost Burdening above). Regulations are set according to the types of funding used to develop the housing, such as the Low-Income Housing Tax Credit, or U.S. Housing and Urban Development (HUD) funding. Most regulated affordable housing is affordable for households earning under 60% MFI, but restrictions vary.

UGB: Urban Growth Boundary: Cities in Oregon are surrounded by urban growth boundaries (UGBs) which designate where they expect to grow over a 20-year period.

The Oregon Housing Needs Analysis and its Implementation

The Oregon Housing Needs Analysis (OHNA) is a new component to Oregon's statewide land use planning system with the intent to facilitate housing production, affordability, and choice to meet housing needs for Oregonians statewide. The OHNA articulates new responsibilities for state agencies and local governments to reorient the implementation of statewide land use planning goals 10 (Housing) and 14 (Urbanization) to produce more housing, ensure equitable access to housing, and ensure state and local governments take action to address need. It affects the way all communities plan for housing and urban lands, and cities with populations of 10,000 or greater are now required to regularly plan and take action to address needs. Under House Bill 2001 and 2889 (2023 Session) The OHNA created the following new components to Oregon's Housing Planning Program:

Methodology	Dashboard	Program
• A methodology that estimates the total number of **Needed Housing** units over a 20-year period for all of Oregon, divided into geographic regions, components of need, and income levels. • An allocation of need from each region to each local government in a region. • This allocation at the local government level forms the basis for the statewide development of **Housing Production Targets** for cities with over 10,000 people. • The methodology will be run annually by the Oregon Office of Economic Development inside DAS.	• A publicly available **Housing Production Dashboard** that will track progress toward housing production target goals by city. • A set of **Housing Equity Indicators** that will monitor equitable housing outcomes by city. • The dashboard and equity indicators will be published annually by OHCS.	• A **Housing Acceleration Program** that supports cities who are falling behind on their Housing Production Targets. • The Housing Acceleration Program requires action, partnership, and investment to identify barriers to production within the control of local governments. • The Housing Acceleration Program and OHNA integration into Oregon's other Land Use Planning Goals will be managed by DLCD and aligned with cities' Housing Production Strategy Deadlines.

OHNA Implementation

1) **The OHNA Methodology** will be finalized by January 1, 2025. See the next section for more information. DAS is responsible for finalizing the methodology with input from OHCS and DLCD.

2) **The OHNA Housing Production Dashboard and Housing Equity Indicators** will be published by January 1, 2025. OHCS is responsible for preparing and publishing these items, with input from DAS and DLCD.

3) **The OHNA Program** is writing administrative rules through January 1, 2026. To integrate the OHNA into the existing statewide land use planning system, the Land Conservation and Development Commission (LCDC) must adopt new and revised Oregon Administrative Rules surrounding three topics:

    a) **Housing Needs and Production** rules will be adopted by January 1, 2025.
    b) **Housing Accountability** rules will be adopted by January 1, 2025.
    c) **Housing Capacity and Urbanization** rules will be adopted by January 1, 2026.

More information on the OHNA Implementation Process can be found on DLCD's Rulemaking Website.

This Report: The OHNA Draft Methodology

This report describes the OHNA Draft Methodology and how it has changed from the Pilot Methodology published in 2020.[2] It describes the steps of the Draft Methodology, including how different components were calculated and the data sources used. It also provides preliminary state and regional results by housing need component and by income level and preliminary local (city) results by income level.

Preliminary results published in this Draft Methodology report **are draft and will continue to change until the methodology is finalized on January 1, 2025.** There are two reasons why the results will continue to change:

1. Publicly available data used to calculate the results will be updated between now and January 1, 2025, which will change the results. See page 38 for a description of public data used, sources, and information on when they are typically updated.

2. The Draft Methodology may continue to change between now and January 1, 2025. The Final Methodology will incorporate public comments on this Draft Methodology and will include several known methodological changes that will not be available until the Final is published.

While the final results will differ from the preliminary results shared herein, the preliminary results demonstrate the outcomes of the OHNA methodology utilizing most current data and provide readers a sense of what the Final Methodology will produce.

Public Input and Finalizing the OHNA Methodology

The law (ORS 184.451) requires DAS to finalize and run the OHNA methodology by January 1, 2025. OHCS and DLCD are making recommendations to DAS on the Final methodology in fall 2024, informed by public input. Figure 1 outlines the process to finalize the OHNA Methodology, including specific opportunities for public comment and testimony.

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[2] This report does not describe changes between the Interim Methodology, which was published in July 2024 and this Draft Methodology.

Figure 1. OHNA Methodology Finalization Process (2024)

- **May 2024: Statewide and Metro-specific webinars hosted by DAS, DLCD, and OHCS** *(Completed)*
- **July 2024: Publish Interim Methodology Report** *(Completed)*
- **July-August 2024: Public comment period on Interim Methodology** *(Completed)*
- **August 2024: Respond to public comments and revise methodology** *(Completed)*
- **September 2024: Publish Draft Methodology Report** *(Completed)***, LCDC meeting and public testimony on Draft Methodology**
- **October 2024: Housing Stability Council Presentation on Draft Methodology Report**
- **October-November 2024: Respond to public comments and revise methodology**
- **December 2024: DAS publishes Final Methodology**

The public can provide feedback on the Draft Methodology through October 4, 2024. The Report will be discussed at the [September 26-27, 2024, LCDC meeting](#) and the public can submit written testimony or sign up to provide virtual or in-person oral testimony. The Report will also be discussed at the October 4, 2024, [OHCS Housing Stability Council Meeting](#).

In addition, written comments can be emailed to [HCS.OHNA@hcs.oregon.gov](#) or [housing.dlcd@dlcd.oregon.gov](#) through October 4, 2024 with the subject line: "Public Comment - OHNA Draft Methodology."

After October 4, 2024, DAS, OHCS, and DLCD will incorporate comments and publish the Final Methodology by January 1, 2025.

Legislative History

The OHNA has been under development for several years (see Figure 2). Under [2019's House Bill 2003,](#) OHCS completed a Pilot Methodology and published a [technical report](#) that describes a recommended methodology and the analytical choices that were ruled out. Many of the data limitations identified and discussed in the Pilot Methodology technical report are relevant in this Draft Methodology and are not revisited herein.

In February 2021, OHCS produced a [companion report](#) that summarizes the Pilot Methodology and provides an overview of the policy choices. And in March 2021, DLCD conducted a review of the pilot methodology and [submitted an evaluation](#) of the methodology along with legislative recommendations.

Under subsequent direction from the Legislature (2021's [House Bill 5006](#)), OHCS and DLCD refined the methodology in 2022 to better account for specific functions and components and provided a [Recommendations Report](#) on how to implement the OHNA into Oregon's existing Land Use Planning System. For a detailed technical explanation of the OHNA methodology and changes recommended last year, see the technical appendix to the OHNA Recommendations Report.

In the 2023 Legislative Session, [House Bills 2001](#) and [2889](#) codified the OHNA into law advancing these recommendations and directing OHCS, DLCD, and DAS to begin implementation.

In summer 2023, DLCD began rulemaking and implementation which will continue through June 30, 2026, and in early 2024 OHCS and DAS began implementing the OHNA into their programs and systems. The Office of Economic Analysis at DAS will be finalizing the OHNA methodology throughout 2024 so it can be run by January 1, 2025.

Figure 2. OHNA Legislative History

2018	2019	2020	2021	2022	2023
HB4006 Housing production reporting required	HB2001 legalizes middle housing

HB2003 requires local housing production strategies

Pilot OHNA method | OHCS pilots OHNA methodology and DLCD completes Housing Production Strategy Rulemaking | HB5006 directs DLCD to create recommendations to implement the OHNA statewide | HB5202 directs DLCD to manage Housing Capacity Work Group | HB2001 and 2889 make the OHNA law and direct DAS, DLCD, and OHCS to implement it into programs |

The OHNA methodology focuses on the affordability and geographic distribution of newly produced housing, not the characteristics of the existing housing stock across the state. This is a methodological choice that has implications for policymaking and tracking the overall affordability of the entire housing stock.

Methodological changes between the Pilot and the Draft Methodologies have been made to improve the OHNA and to better account for different types of demand on current and future housing need. The Draft Methodology adjusts how some components of the Pilot Methodology are calculated and introduces new concepts. The OHNA Draft Methodology has six steps:

1. **Determine Regions**
2. **Determine Income Categories**
3. **Determine Components of Housing Need**
4. **Allocate Needed Housing to Income Categories**
5. **Allocate Needed Housing to Cities and UGBs**
6. **Set Housing Production Targets**

Step 1: Determine Regions

The first step in completing the OHNA is to define the regions for the analysis. The regions affect the entire analysis, from the ability to develop the analysis based on available data to the interpretation of the findings about regional housing needs for individual cities. Since each possible dataset that could be used to define regions has its own level of geographic specificity, choices about regions are integrally tied to choices about data.

Defining regions for this analysis required identifying the source of data that would be used throughout the analysis. The source of data needs to be consistently available statewide, available at an appropriate geographic level, updated annually, have acceptable margins of error for the variables of interest for the methodology, and be flexible enough to allow for comparisons necessary to deliver the analysis required by the statute.

Regions

The OHNA regions are built from Census Public Use Microdata Areas (PUMA) regions. This has not changed from the Pilot Methodology, but the regions themselves have changed due to the Census Bureau adjusting the PUMA boundaries.

The 2019 legislation enabling the Pilot Methodology directed OHCS to develop regions based on those used by the Governor's Regional Solutions Teams, unless it was more appropriate to define regions differently based on ease or cost of collection and/or analysis of data. The law also directed OHCS to consider commuting, employment, and housing markets when defining regions. Ultimately the Pilot Methodology used the regions in Figure 3, rather than the Regional Solutions Team's map as (1) the analysis relies on Public Use Microdata Samples (PUMS) data which align with these regions; (2) with

multiple PUMAs in each region, the margin of error on the range of variables used in the analysis is smaller; and (3) discussions with stakeholders suggested that larger geographies are generally preferable to smaller regions.

Figure 3. Pilot Methodology Regions
See Exhibit 11, page 19 in the 2020 OHCS Technical Report
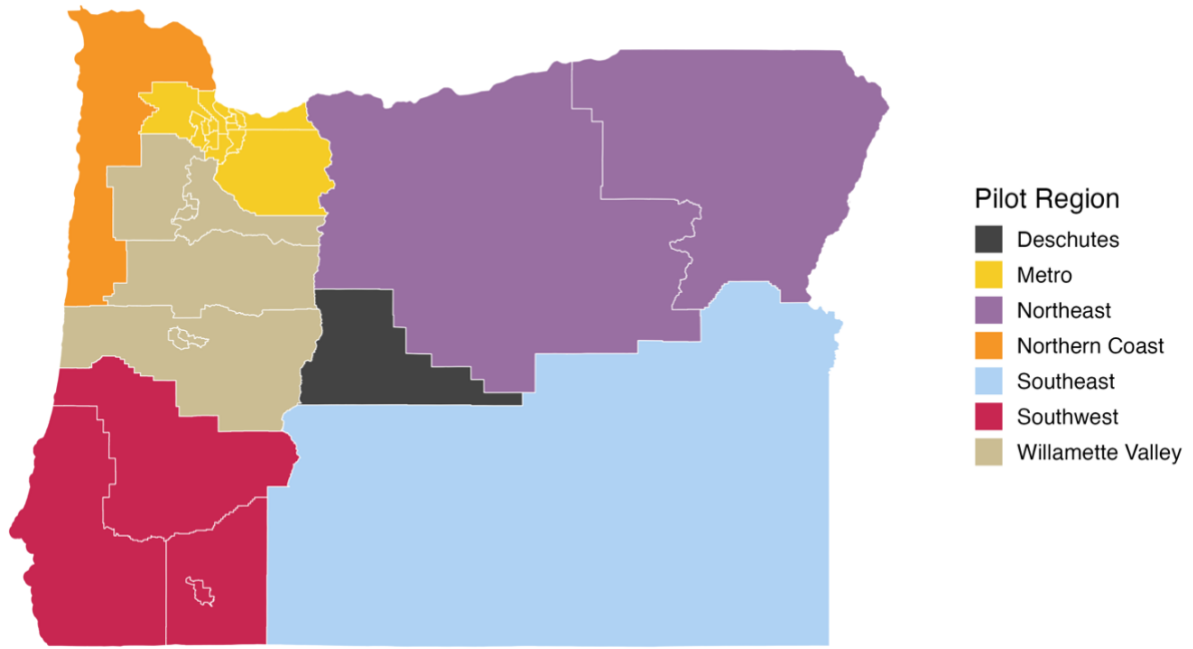
The Pilot Methodology used PUMAs from 2018. The U.S. Census Bureau updates PUMAs every 10 years following the Decennial Census. The most recent change occurred with the 2022 dataset, following the completion of the 2020 Census. In the OHNA, PUMAs are aggregated up to regions, therefore not all changes in the PUMA geographies impact each region.

In the Draft Methodology, four regions differ from the Pilot Methodology: Central, Northeast, North Coast, and Willamette Valley. The 2022 update of PUMA regions affected how Yamhill and Polk Counties were grouped, which affected the Northern Coast region. The Central region also changed; it is now larger as it contains the entirety of Crook, Deschutes, and Jefferson Counties.

Changes to PUMA boundaries will happen every ten years and may affect the OHNA regions in the future. Figure 4 shows the regions in the Draft Methodology, and Figure 5 shows the changes.

Figure 4. Draft Methodology Regions
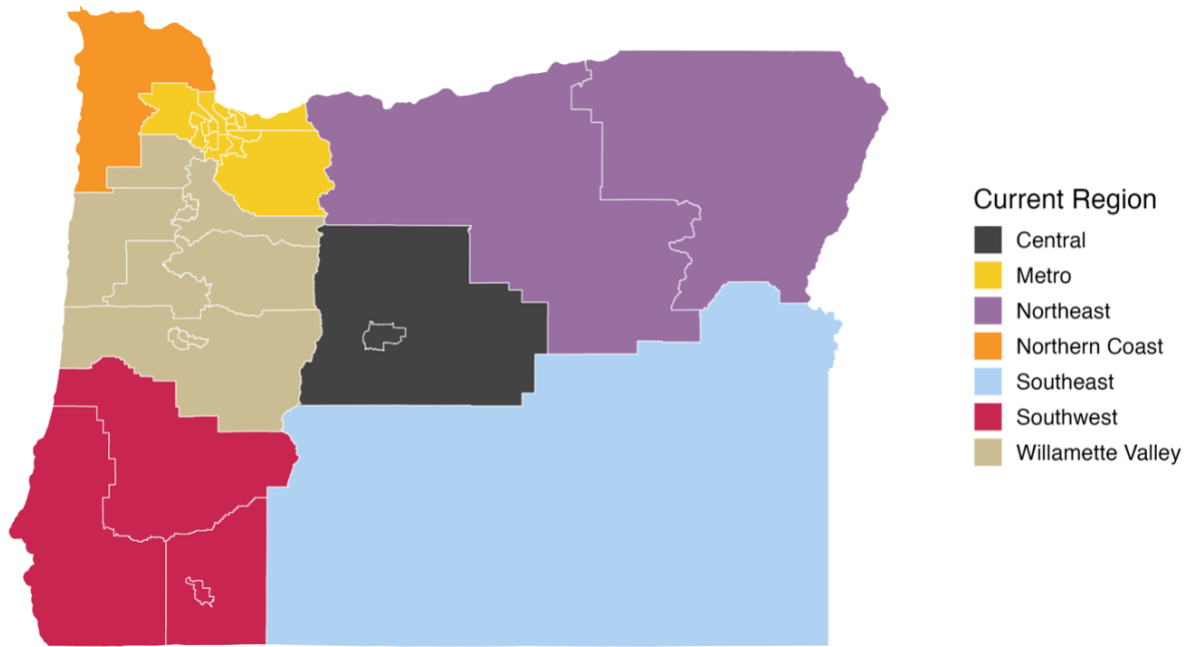
Figure 5. Changes to Regions from Pilot to Draft Methodology
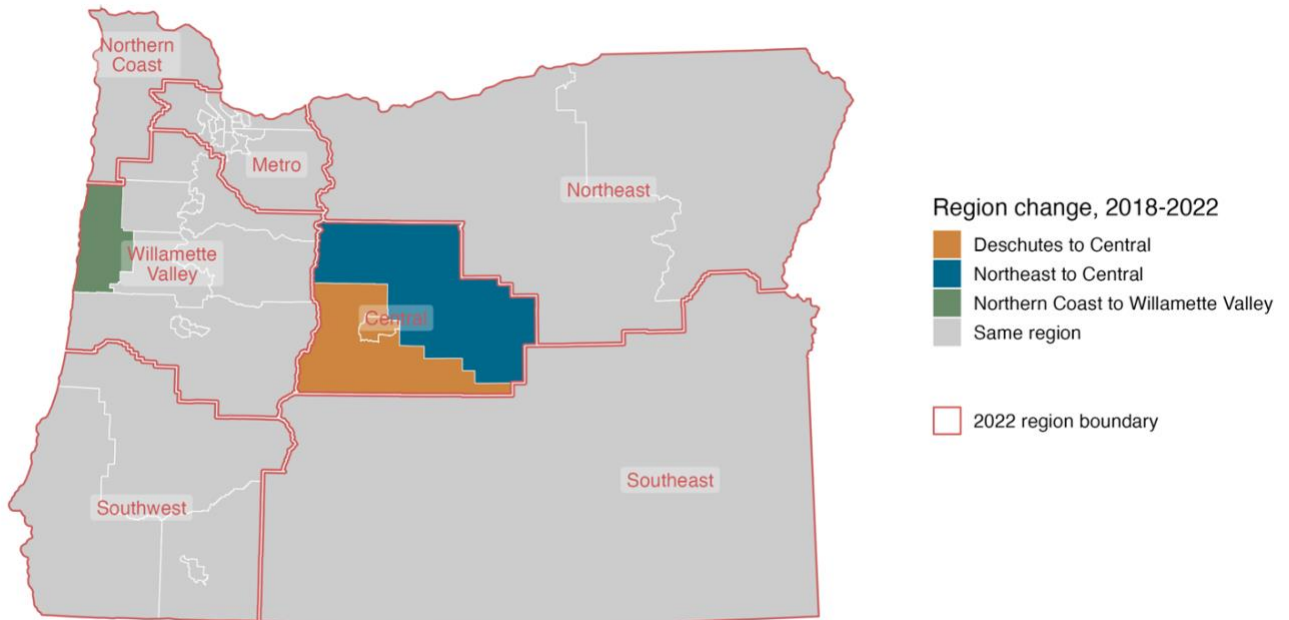
Step 2: Determine Income Categories

The second step in completing the OHNA is to define the income categories that are used to distribute needed housing across the income spectrum. The methodology requires jurisdictions to use regional incomes to allocate housing need. This is an important change from prior Goal 10 planning

requirements in which cities used their own city-level income distributions to allocate housing need by income level.

Income categories translate into housing affordability. Income categories are expressed as a percent of the Area Median Family Income (AMI), which is determined by the U.S. Department of Housing and Urban Development (HUD) and takes into account household size and the number of bedrooms. A housing unit is determined to be affordable to a household if it accounts for less than 30% of that household's gross income.

Across the Draft Methodology, all income categories are adjusted to account for household size. This has not changed from the Pilot Methodology. HUD provides regional AMIs based on a four-person household and provides guidance to allow practitioners to adjust for household size and number of bedrooms in a unit.[3] OHCS follows the HUD guidance, which is as follows:

Household Size Income Adjustment
- 1-person household: 70% of AMI
- 2-person household: 80% of AMI
- 3-person household: 90% of AMI
- 4-person household: 100% of AMI
- 5-person household: 108% of AMI

Apartment Unit Size Income Adjustment
- Studio unit: 70% of AMI
- 1-bedroom unit: 75% of AMI
- 2-bedroom unit: 90% of AMI
- 3-bedroom unit: 104% of AMI

Changes from Pilot Methodology

House Bill 2003 (2019) specifically directed the Pilot Methodology to identify housing need in the following income categories:

1. Very low income (<50% of AMI)
2. Low income (50-80% of AMI)
3. Moderate income (80-120% of AMI)
4. High income (120% of AMI or greater)

However, when developing the Pilot Methodology, the project team identified the need for extremely low-income households earning 0-30% of AMI and very low-income households earning 30-50% of AMI. The Pilot Methodology ultimately used the following income levels (see Exhibit 13, page 21 in the 2020 OHCS Technical Report):

1. 0-30% AMI
2. 31-50% AMI
3. 51-80% AMI

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[3] Portland Housing Bureau Median Income Percentages 2024. https://www.portland.gov/phb/documents/2024-income-and-rent-limits-phb/download

4. 81-120% AMI
5. 120%+ AMI

For the Draft Methodology, OHCS and DLCD recommended changes to the Pilot Methodology to more closely align with OHCS-regulated affordable housing programs, because developers seeking OHCS funding to build regulated affordable housing will be tied to these income limits. These changes adjust the second-lowest income category to a range of 31-60% of AMI, and the middle-income category to 61-80% of AMI. These changes were made in statute, requiring the OHNA to use the following income limits:

1) Less than 30%
2) 30% or more and less than 60%
3) 60% or more and less than 80%
4) 80% or more and less than 120%
5) 120% or more

Step 3: Determine Components of Need

The third step of the OHNA is to determine the different components of housing need. The OHNA is an estimate of total housing needed statewide over a 20-year horizon and includes housing units that are needed now to house the existing population (Current Need) as well as units needed in the future to accommodate household growth (Future Need).

- **Current Need** includes housing underproduction and housing units for people experiencing homelessness (who are not captured in the Census data on total population).
- **Future Need** includes units for expected population growth, expected housing units that will be lost to second and vacation homes, and units to accommodate expected demographic change.

By including an estimate of current housing need in planning requirements, the OHNA departs from historic Goal 10 planning requirements which only required jurisdictions to look forward at the 20-year population forecast. In designing the OHNA, state leaders recognize that Oregon has been underbuilding housing for several decades and that a narrow focus solely on future population growth will not help communities relieve the pressures created in housing markets by low vacancy rates and high prices.

This section steps through each component of the Draft Methodology and discusses changes from the Pilot Methodology.

Current Need

The OHNA is an estimate of total housing needed statewide over a 20-year planning horizon, including an estimate of how many units the state, regions, and cities need currently to adequately house their existing populations. Current need takes into account housing underproduction and units needed for people experiencing homelessness.

Housing Underproduction

Underproduction was included in the Pilot Methodology and has been adjusted in the Draft Methodology to provide a more nuanced approach to calculating the current need for housing. Underproduction was calculated in the Pilot Methodology using a target ratio of housing units per household. Regions with ratios that were lower than the target were experiencing housing underproduction. The target ratios were set different depending on if the region had above the national percentage of second and vacation homes. So, while it provided some regional variation, it was acknowledged as an overcount, and did not provide more insight into the causes of underproduction in any region.

The Draft Methodology adopts an approach used by Up for Growth, a housing policy research nonprofit in Washington, D.C., that has been vetted by housing industry experts.[4] This is a more nuanced approach than using a standard target ratio (as the Pilot Methodology did, discussed below) and is considered a national best practice. This new approach calculates the target number of housing units a market should have (demand) and compares that against the actual number of units that market has available for year-round occupancy (supply). These steps are broken down below. Regions where the demand exceeds supply are experiencing housing underproduction.

Figure 6. Up for Growth Housing Underproduction Methodology

Target Number of Housing Units

The estimate of the target number of housing units starts with the Census Bureau's estimate of total households and then estimates the number of "missing households" that have not formed in a market compared to historical formation rates in 2000.

Household formation is influenced by the housing stock available—when a market does not build sufficient housing, prices rise and vacancy falls, affecting the likelihood of households to form (roommates splitting up, children moving out, etc.). This measure estimates the number of households that are expected to form in less constrained housing market conditions, and as such are a component of current demand.

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[4] Up for Growth, Housing Underproduction in the U.S. 2023. https://upforgrowth.org/apply-the-vision/2023-housing-underproduction/

The Draft Methodology calculates "missing households" based on changes in the headship rate (the percentage of people who are heads of households, or householders) for different age cohorts between 18 and 44. The lack of housing availability and affordability is not the only reason that explains reduced household formation rates, therefore including all age cohorts would be an overcount of household formation primarily caused by housing market constraints. Age cohorts are therefore limited to head of households between 18 and 44 as the most likely ages where this occurs—effectively excluding households over 44 is one way to limit the impact of the overcount. Limiting the age cohorts helps compensate for the nature of the overcount—essentially that housing isn't the only factor contributing to decreased household formation rates.

The Draft Methodology uses a baseline headship rate in the year 2000 for all cohorts. This year was chosen because 2000 Decennial Census data affords us the most recent statistically reliable estimate of a housing market that was more in balance. Headship rates were also generally stable between 1980 and 2000, so going back further would not have a large impact on the baseline headship rate. The Draft Methodology compares the most recent headship rate (based on 2022 PUMS data) against the 2000 baseline for each age cohort. If a cohort has a lower headship rate in the most recent year compared to the baseline, it indicates that fewer households formed. The total estimate of "missing households" is the sum of reduced household formation from cohorts aged 44 years and younger. Should there be negative missing households (more households formed compared to the baseline rate), they are netted out to zero because they are not contributing to excess demand beyond what is already captured in the households formed data observation.

The estimate of missing households is added to the current total number of households to approximate the total number of households that would be seeking housing in unconstrained market conditions. The model then applies a 5% target vacancy rate to estimate the total number of housing units a region should have to accommodate current need and have a healthy level of vacancy. Five percent vacancy is the 75th percentile of the national vacancy rate between 1980 and 2000 and is meant to represent unconstrained market conditions. It is backed by industry stakeholder outreach and research and is used in other methodologies of estimating housing need and underproduction.

Actual Units Available for Year-Round Occupancy

The estimate of the actual number of units available for year-round occupancy starts with the Census Bureau's estimate of total housing units and removes uninhabitable units and second and vacation homes that are not available for year-round occupancy from the stock. Uninhabitable units are identified in the Census PUMS data as those that lack indoor plumbing and complete kitchens, and that have been vacant for at least a year. Second and vacation homes are identified in the Census Bureau as those that are vacant and used for "seasonal or recreational purposes."

By removing uninhabitable units and second and vacation homes from the estimate of the current housing stock, the Draft Methodology attempts to calculate each region's total housing stock available for year-round occupancy as a more accurate reflection of housing supply. When compared to the total number of households each region would have in unconstrained market conditions, the Draft Methodology can capture current housing underproduction and incorporate current housing need into future planning purposes. This change pushes Oregon's statewide housing planning system toward one that more accurately measures total housing need; planning for future housing need without

accounting for current need will continue to yield insufficient housing production relative to demand across the state.

Changes from Pilot Methodology

The Pilot Methodology estimated underproduction in each region relative to a target ratio of households to housing units. Units lost to second and vacation homes were not estimated as their own component; they were included as part of the target ratio for underproduction. Regions with a lower share of second and vacation homes than the national average (4%) were calculated by excluding second and vacation homes, and benchmarking against a ratio of 1.10 unit per household.[5] When a region's ratio was less than the target of 1.10 excluding second and vacation homes, it was considered to have housing underproduction. For regions with above the national average of second and vacation homes, a ratio of 1.14 was used as the target to calculate underproduction (see page 19 in the 2020 OHCS Technical Report).

Housing Units Needed for People Experiencing Homelessness

The Draft Methodology makes a small adjustment to the calculation for this component.

Determining the number of units a region needs to house people experiencing homelessness requires careful attention, because available datasets have many known limitations including undercounting populations. Populations experiencing homelessness are generally not captured in foundational datasets derived from the Census, so they are not included in the projections of current (or future) need. This methodological choice was made under the assumption that if jurisdictions can plan for current need as the sum of underproduction and housing for people experiencing homelessness, while planning for enough housing units to meet future need, then homelessness would become "functionally zero," and would be rare and brief.[6]

The Pilot and Draft Methodologies rely heavily on the limited research available on this topic, as well as discussion and feedback from stakeholders with expertise in research and service provision for those experiencing homelessness in Oregon. The state continues to explore new research and better data to continually improve this portion of the OHNA methodology.[7]

To calculate each region's target number of housing units needed to accommodate households experiencing homelessness, the Draft Methodology uses the Point-In-Time (PIT) Count data of sheltered households and the PIT estimate of the unsheltered population, scaled by a factor of 1.60 to

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[5] 1.10 is the national average ratio of housing units to households formed from 1960 to 2015. The national average share of housing units that are used as second and vacation homes is 0.04. Taking these together creates a ratio of 1.14 that is used as a benchmark for sufficient "cushion" in the market to allow for vacancy, obsolescence, demolition, and second and vacation homes.
[6] Functional Zero Homelessness occurs "when the number of people experiencing homelessness at any time does not exceed the community's proven record of housing at least that many people in a month." https://community.solutions/built-for-zero/functional-zero
[7] Recommendations for improving data are included in Chapter 7 of the OHCS RHNA Technical Report and Appendix B describes the key analytical issues in estimating the amount of housing need to accommodate the population of people experiencing homelessness in Oregon.

address known undercounting issues in the data.[8] The 1.60 scalar for the unsheltered population is at the higher end of other estimates of PIT undercounting.[9]

The model then adds the adjusted PIT count to an estimate of homeless households that are not in the PIT nor Census Data, which is derived from the McKinney-Vento statewide survey of doubled-up students by county. This data on doubled-up students is converted to households by dividing by the average number of children per household by region. The McKinney-Vento data comes from the U.S. Department of Education which works with state coordinators and local liaisons to collect performance data on students experiencing homelessness. The data records the number of school-aged children who live in shelters or hotels/motels and those who are doubled up, unsheltered, or unaccompanied. Sheltered, unsheltered, and accompanied students are assumed to be captured by the PIT counts, and so only doubled up student counts from the McKinney-Vento data are used.

In summary, the methodology looks like this for each OHNA region:

Sum of PIT Count of Sheltered Households for the region
+   Sum of PIT Count of Unsheltered Households * 1.6 scalar for each region
+   <u>Sum of Region's Doubled Up Students / Regional Average Children per Household</u>
= OHNA Estimate of Units Needed to Accommodate Households Experiencing Homelessness

Changes from Pilot Methodology

This step has changed from the Pilot Methodology to correct for an over-adjustment. The Pilot Methodology scaled both the unsheltered and sheltered PIT counts of homelessness by the 1.60 multiplier. Because shelters have a certain number of beds available, the sheltered population experiencing homelessness is not undercounted to the same extent as the unsheltered population. The change to the Draft Methodology improves the accuracy of this component of the OHNA by only scaling the unsheltered population by the 1.60 scalar (see page 20 in the 2020 OHCS Technical Report).

Future Methodological Changes

OHCS is working with researchers at the Homelessness Research and Action Collaborative (HRAC) at Portland State University (PSU) to improve its understanding of how to more accurately count people experiencing homelessness. The work will revisit best practices in measuring the population of people doubled up and will revisit the scalar applied to people

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[8] Wilder Research, Homelessness in Minnesota - Findings from the 2015 Minnesota Homeless Study (2016). http://mnhomeless.org/minnesota-homeless-study/reports-and-fact-sheets/2015/2015-homelessness-in-minnesota-11-16.pdf

[9] The estimate of a 130% undercount in the PIT is based on: Kim Hopper, Marybeth Shinn, Eugene Laska, Morris Meisner, and Joseph Wanderling, 2008: Estimating Numbers of Unsheltered Homeless People Through Plant-Capture and Postcount Survey Methods. American Journal of Public Health 98, 1438_1442, https://doi.org/10.2105/AJPH.2005.083600.

experiencing unsheltered homelessness. HRAC conducted a literature review, reached out to other researchers working on similar methodologies, and engaged with Continuums of Care in Oregon to come up with a new proposal for this estimation. This work was completed in September 2024 and the proposal from HRAC including draft numbers is included in Appendix A on page 38. This methodology will be incorporated into the Final Methodology published on January 1, 2025. Appendix A41

Future Need

The OHNA is an estimate of total housing needed statewide over a 20-year planning horizon. Future need takes into account the housing units needed for population growth, housing units lost to second and vacation home demand, and housing units needed to accommodate demographic change.

Housing Units for Population Growth

To estimate 20-year future housing needs, forecasted population growth must be translated into future households and then translated into future needed housing units.

PSU's Population Research Center (PRC) produces the official population estimates for the State of Oregon. The Draft Methodology converts the PRC population forecast to households using the most recent regional average household size estimated with the most recent PUMS data. As with past Goal 10 housing planning requirements, the future population forecast excludes the estimate of people living in group quarters because they are not considered part of the household population, and their needs are planned for separately. Each region's base-year population estimates are reduced by the 2022 PUMS-derived share of population in group quarters, before converting population to households. For the horizon year forecasts, we use 2022 PUMS to calculate a group quarters rate by age cohort and apply it to regions' 2045 age cohort forecasts to arrive at an overall regional group quarters rate. Since most regions' forecast a greater share of older cohorts in 2045, the OHNA currently models slight increases in overall group quarter rates for all regions in the horizon year.

The loss of units to second and vacation homes in the future is calculated as a separate component of need (see next section), therefore the Draft Methodology assumes that each future household will occupy one housing unit, while also planning for the target vacancy rate. Once total future needed housing units are determined, the Draft Methodology applies the same 5% vacancy factor to estimate the future housing stock that cities and regions should plan for (see page 13).

Changes from Pilot Methodology

The Pilot Methodology used the same PRC population forecasts and PUMS estimates of average household size to convert population to households. To translate households into housing units, the Pilot Methodology used the national ratio of housing units per household (1.14), which was intended to account for a vacancy rate, demolition, and future units lost to second and vacation homes. By pulling second and vacation homes into its own component of need, the future need due to population growth

can be modeled more accurately by accounting for the varied rate of second and vacation home growth across the state (see page 19 in the OHCS [Technical Report](#)).

Housing Units Lost to Second and Vacation Home Demand

Estimating second and vacation homes as its own component allows cities to better account for demand for these housing units in the future and improves the State's understanding of the role that second and vacation homes play in each region's housing market. In many outdoor recreation- and tourist-heavy communities, particularly along the coast, in the Gorge, and in central Oregon, the presence of second and vacation homes removes units of the existing housing stock from year-round occupants at a different rate than in other parts of the state. This contributes to underproduction of needed housing by reducing the number of units available to full-time renters and owners, thereby decreasing vacancy rates and putting upward pressure on housing costs. As the stock of second and vacation homes grows in the future, it effectively takes away from housing production, as fewer units are available for year-round occupancy.

Figure 7. Summary of Process to Identify Second and Vacation Homes

1. Calculate change in the number of second and vacation homes per region
2. Determine how much housing is needed to offset this expected future loss in units
3. Apply the ratio to forecasted housing unit growth

The current share of second and vacation homes varies by region, as does the pace at which these shares are changing over time. First, the model calculates the change in the number of second and vacation homes for each region between the years 2000 and 2020. The growth in second and vacation homes is then contextualized by the number of all housing units added for each region between 2000 and 2020. The ratio of second and vacation homes added compared to the total housing production is calculated for each region. This ratio is effectively an approximation of how much additional production would be required to offset the loss in units to second and vacation home demand over the 20-year planning period. In practice, a jurisdiction could implement policies to reduce the growth of second and vacation homes or target the production the additional units to offset the loss of units available for year-round occupancy.

Example Calculation for Second and Vacation Home Demand

If a city produced 1,000 housing units between 2000 and 2020 but saw the number of second and vacation homes in the same time period grow from 100 to 200 units (either through new construction or conversion of an existing home), then it would have a ratio of 0.1 ((200-100)/1000). If this city was estimated to grow by 2,500 new households over twenty years, the additional production to account for units lost to second and vacation home need would be 0.1 * 2,500 or 250 units.

Changes from Pilot Methodology

As described, the Pilot Methodology captured housing units used as second and vacation homes in underproduction and population growth when those components used a static household-to-housing-unit ratio. By applying a ratio to the number of households in a region, the Pilot Methodology was attempting to capture the "cushion" of extra housing units that a balanced market would need to properly account for second and vacation home demand and market vacancy.

The Draft Methodology only calculates second and vacation homes as part of determining future housing need. These units are no longer available for year-round occupancy, and as units are purpose-built or converted into second and vacation homes, they need to be replaced in order to achieve the desired number of units per household or target vacancy rate. Units identified as being currently occupied as second and vacation homes are captured as part of the underproduction calculation (current need).

Housing Units for Demographic Change

The number of housing units needed to account for demographic change is a new component of the Draft Methodology and was not captured in the Pilot Methodology. This helps to account for changing household demographic composition (aging and reduced birth rate) as the population of Oregon changes.

Like many states, Oregon is aging, and seniors typically have smaller household sizes; according to Census data, the average household size (persons per household) headed by a person aged 60 to 69 is only 1.9 people, compared to 2.9 people for households headed by a person aged 30-39. As population forecasts expect a larger share of the population to be 65 and older, and as the fertility rate continues to remain below replacement rate, more housing units will be needed to house Oregon's older total future population. An example below depicts how demographic change is handled in the model.

First, the Draft Methodology uses PUMS data to calculate the current persons per household (PPH) for each major age cohort by region. It then joins the age cohort-based PPH figures to the 2025 and 2045 population forecasts by age cohort, and then calculates a total PPH for each region for 2025 and 2045. Average household sizes for each region are forecast to be smaller due to changing demographics.

The PRC-forecasted populations in each region in 2025 and 2045 are then converted into households by dividing by the average household size in each region. This differs from the population change component, where the PPH is held constant between the baseline and horizon years (using 2025 PPH).

The final step in the process is to convert the added number of households in each region into needed housing units. Following the methodology for the other components, the Draft Methodology also applies the target 5% vacancy factor to the estimated number of needed housing units in the future (see page 13).

The demographic change component is effectively capturing the change in household size for existing households (starting in 2025) as well as the marginal new households added between 2025 and 2045. This is a deviation from other components in that it considers housing need for existing and future households. It is included in the future need category because it captures future demand for housing from existing households (rather than underproduction and homelessness, which are current demand).

Step 4: Allocate Needed Housing to Income Categories

Once total housing units needed are estimated for each component and each region, the next step is to distribute housing need to income categories. Allocation processes differ by component.

Current Need: Housing Underproduction

Underproduced units are allocated to income categories based on the rate of cost burdened renter households in each region. Cost burdening is a good proxy to estimate the income levels where current housing is in most need. Underproduction in a market leads to increased cost burdening by limiting choice and reducing overall affordability, and these impacts are most acutely experienced by lower-income renter households who have the highest rates of cost burdening. Underproduced units are therefore distributed proportionate to rates of regional cost burdening to approximate the income levels with the most acute need. For example, if 50% of all renter households who are cost burdened earn 0-30% of AMI, then 50% of the underproduction units should be targeted for households earning 0-30% of AMI. The model uses 2022 PUMS to first isolate cost-burdened renter households in each region, and from there, calculate the proportion of these cost-burdened households in each AMI household income bracket. This has not changed from the Pilot Methodology.

Current Need: Housing Units Needed for People Experiencing Homelessness

Housing units needed for people experiencing homelessness are distributed by income based on information provided from OHCS. This distribution has not changed since the Pilot Methodology. There is no existing, high-quality dataset with information about the incomes of people who are experiencing homelessness, but many households that are experiencing homelessness have incomes and still cannot find a home that is affordable to them.

To provide a starting place for understanding the distribution of households experiencing homelessness by income, the Draft Methodology uses OHCS administrative data from Community

Action Agencies that receive state Emergency Housing Assistance (EHA) and State Housing Assistance Program (SHAP) funds. Statewide, of households whose income is captured in the EHA / SHAP administrative data, a large portion (89%) are in the lowest income categories.

- 3% of units are allocated to the 61-80% AMI Category
- 8% of units are allocated to 31-60% AMI Category
- 89% of needed units are allocated to the 0-30% AMI Category

This does not vary regionally. OHCS began receiving EHA and SHAP data in fiscal year 2020. This distribution is based on the first three quarters of fiscal year 2020 only. OHCS recommends revisiting and refining these data in the future.

Future Need: Housing Units for Population Growth

Units needed to accommodate population growth are allocated based on each region's current income distribution. The state's income distribution and that of each region are shown in Figure 8 below. This has not changed from the Pilot Methodology.

Figure 8. Income Distributions for Oregon and Each OHNA Region, 2022

Region	0-30% AMI	31-60% AMI	61-80% AMI	81-120% AMI	120%+ AMI
Central	9%	15%	14%	21%	41%
Metro	12%	16%	11%	19%	42%
Northeast	12%	14%	12%	21%	41%
Northern Coast	12%	21%	9%	22%	36%
Southeast	13%	17%	10%	19%	41%
Southwest	10%	18%	11%	17%	44%
Willamette Valley	14%	18%	11%	21%	36%
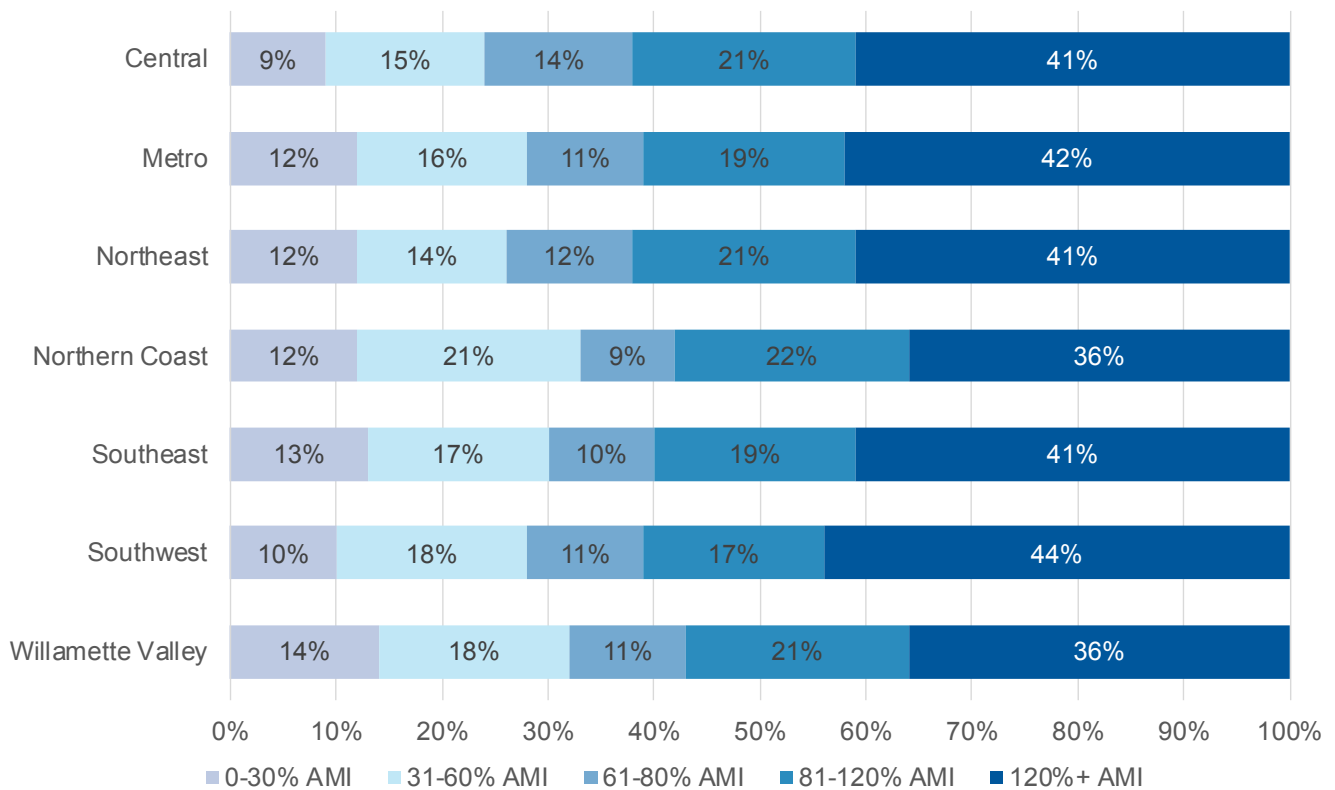
Future Need: Housing Units Lost to Second and Vacation Home Demand

PUMS data does not provide rent or valuation data for units identified as second and vacation homes, but data on the year built are available and are used as a proxy for valuation with the assumption that newer units are more expensive and should be allocated to the highest income categories. The OHNA

methodology allocates units identified as second and vacation homes that were built prior to 1990 to the 80-120% AMI income category while those built after 1990 are allocated to the 120%+ AMI income category. This distribution was determined based on separate analyses of regional patterns of affordability of occupied homes by year built. This is a change from the Pilot Methodology since this component was not calculated individually.

Future Need: Housing Units Needed for Demographic Change

Given the similarities between units needed for population growth and units needed for demographic change, units needed for demographic changes are also allocated to income categories based on each region's income distribution. This component was not part of the Pilot Methodology.

Summary of Needed Units by Income Level

Generally, the Draft Methodology results suggest that needed housing units in the future are skewed toward higher incomes while current needed housing units are skewed toward lower incomes. Figure 9 below shows an example distribution of housing unit need by income level for current and future need categories.

Figure 9. Example Income Target Distribution by Category of Need for the Metro Region
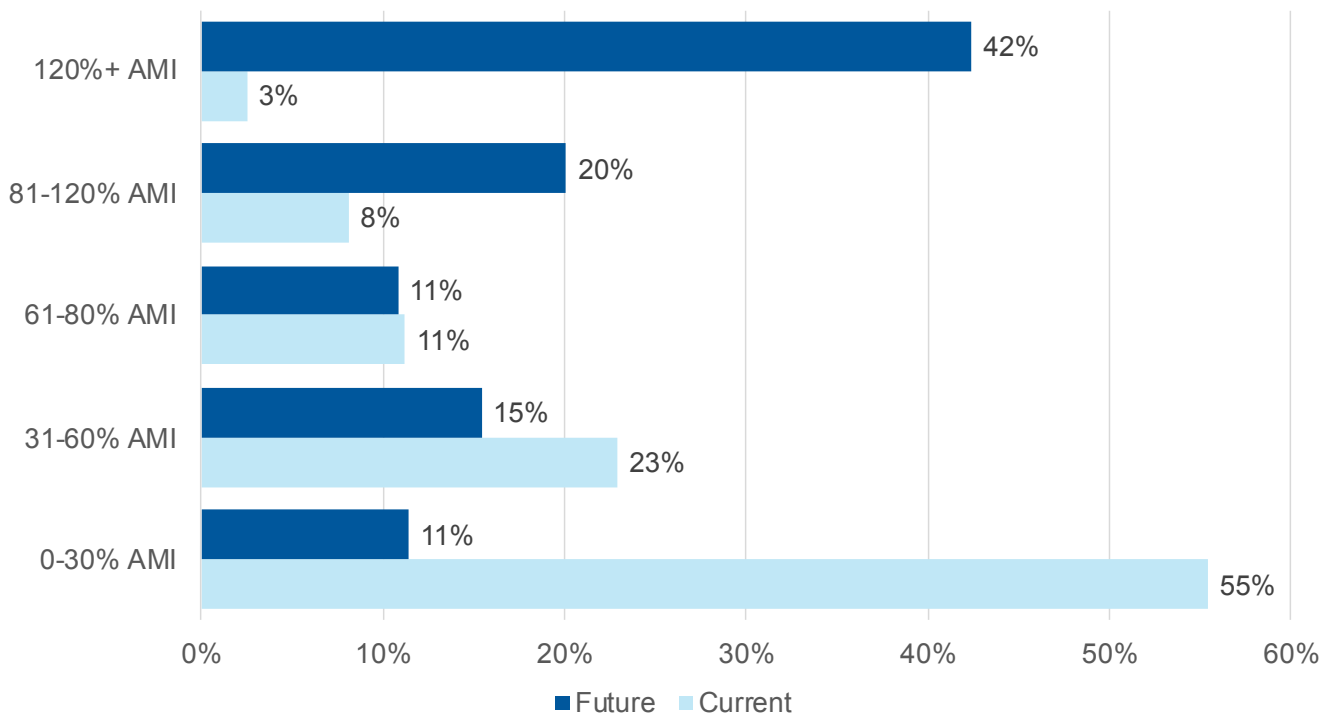
Step 5: Allocate Needed Housing to Cities and UGBs

After the total housing units needed over 20 years is calculated, the fifth step in the methodology is to determine what needed housing should be allocated to areas inside or outside of Urban Growth Boundaries. The Portland Metro region has a different allocation methodology (see page 27). While the

Salem-Keizer area has two cities within one UGB, the PRC provides city-level population projections for both Salem and Keizer, preventing the need to create a separate allocation process for this UGB.

Step A. Determine Regional Need Inside vs. Outside UGBs

First, the 20-year future population growth outside of UGBs is determined for each region. This is based on PRC forecasts which report outside-UGB subtotals for every county. This step recognizes that not all Oregonians live inside UGBs, and not all Oregonians will live inside UGBs in the future. Lands outside a UGB receive a future housing estimate to reflect projected demand, but do not receive any current need allocations. Current need is primarily a symptom of a lack of enough housing units. Areas outside of UGBs are rural and resource lands and generally do not plan for housing growth under the statewide land use system; therefore, the responsibility for providing additional housing units to meet current need is accommodated inside of UGBs.

Second, units reflecting population growth, demographic change, and demand for second and vacation homes outside UGBs are removed from the regional total. The remaining units are then allocated to UGBs inside the region.

Step B. Allocating Regional Need to Urban Growth Boundaries

Next, each component of need is allocated from the adjusted regional total (excluding areas outside of UGBs) to each of the UGBs in the region using a set of policy variables and weights in the following combinations. These allocation weights attempt to balance where people currently live, where the PSU population forecasts expect people to live, and where the region's jobs are located. Second and vacation home allocations are intended to focus those housing units where the housing markets are most directly impacted today. Including an area's share of jobs as a weight in the allocation is a policy choice driven by Oregon's desire to create compact livable communities with access to jobs and amenities. It also helps to ensure that Oregon will meet its climate and emissions reductions goals.

- Housing Underproduction
    - 50% from UGB's share of its region's current population
    - 50% from UGB's share of its region's current employment (derived from current Census Longitudinal Employer-Household Dynamics (LEHD) block-level counts of jobs within all geographies)
- Housing Units for People Experiencing Homelessness
    - 50% from UGB's share of its region's current population
    - 50% from UGB's share of its region's current employment
- Housing Units for Population Growth:
    - 50% from UGB's share of its region's population growth
    - 50% from UGB's share of its region's current employment
- Housing Units for Demographic Change
    - 50% from UGB's share of its region's current population
    - 50% from UGB's share of its region's current employment
- Housing Units Lost to Second and Vacation Home Demand

- ○ 100% from UGB's share of its regions current second and vacation home stock (as determined by 2020 Decennial Census block-level counts of second and vacation homes spatially joined to UGB boundaries)

Step C. Distribute from Urban Growth Boundaries to Cities

This is only applicable in the Portland Metro UGB, which contains multiple jurisdictions (see page 27).

Changes from Pilot Methodology

The Draft Methodology differs from the Pilot Methodology with the addition of separating out the demographic change and second and vacation home components and with the allocation processes from the population growth component. The allocation of underproduction and units needed to accommodate homelessness are unchanged from the Pilot.

Step 6: Set Housing Production Targets

Once the total housing need is determined, the sixth step of the OHNA Draft Methodology is to set statewide and regional targets for housing production. In early 2023, Governor Tina Kotek issued Executive Order 23-04 to establish an annual statewide housing production goal. Based on this policy objective and using the same formula as the Governor's housing production goal, the OHNA Draft Methodology prioritizes and front-loads the current need target over 10 years and spreads the future need target over the 20-year OHNA planning horizon. An example calculation of an annual production target is shown below. The same calculations apply for calculating the production targets at each income level.

Example Annual Production Target Calculation

Total Need: 50,000 units
Current Need: 10,000 units
Future Need: 40,000 units

Annual Production Target:
    [Current Need / 10 years] + [Future Need / 20 years]
    [10,000 units / 10 years] + [40,000 units / 20 years]
    = 1,000 units + 2,000 units
    = 3,000 units per year

Changes from Pilot Methodology

The Pilot Methodology did not contemplate target setting, so this is an addition to the Draft Methodology in alignment with policy direction and legislative intent.

Peer Cities

While not a statutorily designated part of the OHNA *methodology* under DAS, the Housing Production Dashboard that OHCS is producing must include, for each city with a population of 10,000 or greater, "a comparative analysis of progress in comparison to the region and other local governments with similar market types" which are referred to as "peer cities."[10] The Oregon Administrative Rules that are being written for the OHNA Housing Acceleration Program may also reference a city's progress toward housing production targets compared to its region or peers.

Peer cities were explored in the [Technical Appendix](#) (pdf page 32) to the [2022 OHNA Legislative Recommendations Report](#) and the idea was carried into the OHNA law. The peer cities analysis was not part of the Pilot Methodology but is included here. To group cities, the OHNA project team identified the following housing market attributes that can indicate similarity:

1. Current population size (static)
2. Share of households with incomes >$150,000 (static)
3. Share of housing used as second and vacation homes (static)
4. Share of housing that is single unit detached (static)
5. Share of housing that is owner-occupied (static)
6. Population growth 2011-2022 (change)
7. Annualized OHNA allocation as a percent of current housing units (static)

The project team conducted a statistical analysis called a K-Nearest Neighbor (KNN) to group each city with seven other peers based on their shared conditions across the seven variables listed above (see Figure 10 for the draft list of peers). The KNN algorithm uses place-level ACS and Decennial Census population estimates data as inputs, and each input is equally weighted. This approach allows for each city to be compared to its seven closest peers. This approach offers several advantages including a consistent number of peer cities, and for each city to be grouped with its best fitting peers. Other contemplated methodologies result in peer groups of different sizes, for example one group of peers might have 5 cities, while another might have 15.

KNN works by calculating a matrix of Euclidean distances between each pair of cities (the square root of the sum of squared differences for every variable). Some city pairs are socioeconomically and demographically "closer," or more similar, to each other than others. As Euclidean distance increases, the potential fit as a peer decreases. A common rule of thumb for KNN is to limit neighbor groupings to the square root of the total number of samples in the set. In this case, the draft KNN model contains 55 cities that are over 10,000 population in Oregon, meaning that the choice of 7 nearest neighbors is adequate for the OHNA purposes.

The draft peer city list in Figure 10 does not include urban unincorporated county areas, nor does it include Tillamook County. Data limitations do not allow for a reasonable use case for the unincorporated parts of a county. The best identified comparable approach is to use each of the other counties in a region as the appropriate peers. For example, the peers for unincorporated Multnomah

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[10] "City" is used as shorthand for the jurisdictions that will receive peers. See ORS 456.601(3)b: https://www.oregonlegislature.gov/bills_laws/ors/ors456.html

County are the other unincorporated counties in the Metro Region, in this case unincorporated Clackamas and unincorporated Washington County. Final peer groupings will be determined by January 1, 2025, based on updated data and any other methodological updates.

Figure 10. Draft Peer Cities List

City	Peer 1	Peer 2	Peer 3	Peer 4	Peer 5	Peer 6	Peer 7
Albany	McMinnville	Keizer	Hermiston	Newberg	Medford	Silverton	Grants Pass
Ashland	Astoria	Pendleton	North Bend	Newport	The Dalles	Newberg	Milwaukie
Astoria	Ashland	Pendleton	Newport	Roseburg	Monmouth	Newberg	Grants Pass
Baker City	North Bend	Pendleton	The Dalles	Central Point	Coos Bay	Keizer	Molalla
Beaverton	Hillsboro	Eugene	Gresham	Corvallis	Tualatin	Tigard	Wilsonville
Bend	Redmond	Medford	Newberg	Grants Pass	Roseburg	Salem	Lake Oswego
Canby	Gladstone	Oregon City	Central Point	Dallas	Silverton	Keizer	Cornelius
Central Point	Silverton	Oregon City	Keizer	Canby	Cornelius	Dallas	Milwaukie
Coos Bay	Pendleton	La Grande	McMinnville	Springfield	Newport	North Bend	Ashland
Cornelius	Troutdale	Central Point	Gladstone	Sandy	Canby	Sherwood	Oregon City
Corvallis	Beaverton	Eugene	Hillsboro	Monmouth	Gresham	Tualatin	Springfield
Cottage Grove	Woodburn	Lebanon	Central Point	Keizer	Silverton	Troutdale	St. Helens
Dallas	St. Helens	Hermiston	Woodburn	Canby	Central Point	Silverton	Albany
Eugene	Salem	Gresham	Hillsboro	Beaverton	Corvallis	Medford	Springfield
Fairview	Wilsonville	Lebanon	Forest Grove	Hillsboro	Beaverton	Corvallis	Hermiston
Forest Grove	Molalla	Keizer	Oregon City	The Dalles	Silverton	Canby	Tigard
Gladstone	Troutdale	Canby	Milwaukie	Central Point	Cornelius	Silverton	Keizer
Grants Pass	Roseburg	Medford	Newberg	Albany	Prineville	The Dalles	McMinnville
Gresham	Eugene	Beaverton	Springfield	Hillsboro	Keizer	Albany	McMinnville
Happy Valley	Redmond	Sandy	Bend	West Linn	Dallas	Lake Oswego	Sherwood
Hermiston	Dallas	Woodburn	Albany	Lebanon	McMinnville	St. Helens	Canby
Hillsboro	Beaverton	Eugene	Tigard	Tualatin	Gresham	Corvallis	Wilsonville
Keizer	McMinnville	Milwaukie	Albany	Central Point	Oregon City	Silverton	Forest Grove
Klamath Falls	Roseburg	Grants Pass	Monmouth	Prineville	Astoria	Medford	Pendleton
La Grande	Coos Bay	Pendleton	Springfield	Ontario	Milwaukie	McMinnville	North Bend
Lake Oswego	Tigard	Sherwood	Newberg	Oregon City	Tualatin	Milwaukie	West Linn
Lebanon	Hermiston	Cottage Grove	Albany	Fairview	McMinnville	Woodburn	Springfield
McMinnville	Albany	Keizer	Newberg	Silverton	Springfield	The Dalles	Woodburn
Medford	Salem	Grants Pass	Albany	Roseburg	McMinnville	Newberg	Eugene
Milwaukie	Keizer	North Bend	Silverton	Gladstone	Central Point	McMinnville	Oregon City
Molalla	The Dalles	Silverton	Forest Grove	North Bend	Newberg	Central Point	Keizer
Monmouth	Roseburg	Corvallis	Astoria	Klamath Falls	Grants Pass	Ashland	Pendleton

City	Peer 1	Peer 2	Peer 3	Peer 4	Peer 5	Peer 6	Peer 7
Newberg	Silverton	McMinnville	Albany	The Dalles	Grants Pass	Central Point	Tigard
Newport	Astoria	Ashland	Pendleton	Coos Bay	North Bend	Baker City	Newberg
North Bend	The Dalles	Milwaukie	Silverton	Pendleton	Keizer	Central Point	Molalla
Ontario	Hermiston	Springfield	Woodburn	Roseburg	Klamath Falls	McMinnville	Prineville
Oregon City	Central Point	Canby	Keizer	Silverton	Sherwood	Tigard	Milwaukie
Pendleton	North Bend	Coos Bay	McMinnville	Ashland	The Dalles	Springfield	Astoria
Portland	Eugene	Gresham	Hillsboro	Beaverton	Salem	Tigard	Albany
Prineville	Roseburg	Grants Pass	Redmond	Hermiston	Klamath Falls	Newberg	St. Helens
Redmond	Grants Pass	Prineville	Roseburg	Bend	Medford	Newberg	Dallas
Roseburg	Grants Pass	Prineville	Klamath Falls	Medford	Newberg	McMinnville	Albany
St. Helens	Dallas	Woodburn	Hermiston	Central Point	Silverton	Gladstone	Cornelius
Salem	Medford	Eugene	Albany	Hillsboro	Gresham	Grants Pass	Tigard
Sandy	Cornelius	Sherwood	Oregon City	Canby	Central Point	Dallas	Silverton
Sherwood	Oregon City	Cornelius	Central Point	Sandy	Lake Oswego	Canby	Milwaukie
Silverton	The Dalles	Central Point	Newberg	Molalla	North Bend	McMinnville	Milwaukie
Springfield	McMinnville	Albany	Pendleton	Gresham	Keizer	Lebanon	Coos Bay
The Dalles	Molalla	Silverton	North Bend	Newberg	McMinnville	Keizer	Central Point
Tigard	Tualatin	Oregon City	Lake Oswego	Albany	Newberg	Keizer	Canby
Troutdale	Gladstone	Cornelius	Central Point	Milwaukie	Canby	Keizer	Woodburn
Tualatin	Tigard	Beaverton	Hillsboro	Newberg	McMinnville	Albany	Corvallis
West Linn	Sherwood	Lake Oswego	Cornelius	Central Point	Sandy	Oregon City	Newberg
Wilsonville	Fairview	Hillsboro	Forest Grove	Beaverton	Corvallis	Gresham	Tualatin
Woodburn	St. Helens	Dallas	Hermiston	Cottage Grove	McMinnville	Albany	Central Point

Future Methodological Steps

Once the OHNA Methodology is finalized and run each year, DAS expects to smooth the regional totals using 2-3 years of historic data. The intention is to prevent OHNA targets from jumping around significantly from year to year due to data volatility, so local jurisdictions can have consistent information for planning purposes. The smoothing process may be challenging when PUMA boundaries change. The process has not yet been determined. By January 1, 2025, DAS will determine whether the initial housing needs and targets will be based on one or two years of data. By December 31, 2025, DAS will determine whether the subsequent years' housing needs and target will be based on one, two, or three years of data.

In addition, after the OHNA Methodology is finalized and run each year, DAS expects to revisit the methodology over time. A schedule for revisiting the methodology, potential data changes, or potential catalysts that would trigger a methodology update have not yet been determined. The law also allows OHCS and DLCD to recommend changes to the OHNA Methodology.

The law codifying the OHNA into the statewide land use planning system treats the Portland Metro UGB differently from the rest of the state. Under House Bill 2889 (2023 Session), The Metro Regional Government is required to plan for growth for all the jurisdictions within its UGB, while DAS is responsible for allocating that need to individual cities and urban, unincorporated lands (UULs) within the Metro UGB.

OHNA Draft Metro UGB Suballocation Methodology Steps

Determining Need for Metro UGB

Planning for future need in the Metro UGB is determined separately from the rest of the Metro Region. To begin with, the Metro Region future and current need is calculated in the same manner as all other regions. Current need is determined using the same methodology as all other regions and UGBs. Future growth is then determined for the non-Metro UGBs and the county areas outside of all UGBs. The estimate of future need within the Metro UGB will be obtained from the Metro's Urban Growth Report (UGR), which will not be finalized until later this year.

To provide the preliminary results in this Draft Methodology report, the Metro Chief Operating Officer (COO) recommended UGR estimate of total future need from household growth (population growth and demographic change combined) for was used.[11] This total number is distributed into demographic change and population growth, and across household income brackets using the pre-existing distributions from the rest of the Metro Region as those are not included in the UGR report. The final methodology will utilize Metro adopted UGR as inputs to the allocation methodology.

Figure 11. Distribution by Component of Need for Metro Region
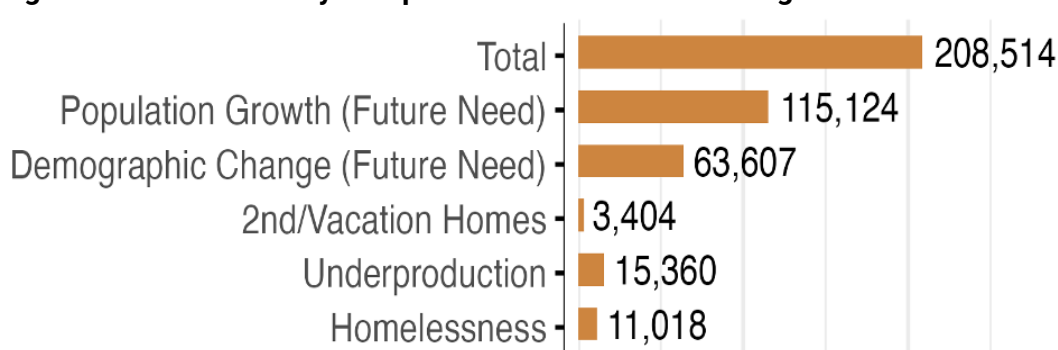
Allocation of Need from UGBs to Cities and Urban Unincorporated Lands

The allocation of future and current need to the non-Metro UGBs within the Metro Region mirrors the methodology used in all other regions. The allocation of units to cities and unincorporated areas within the Metro UGB uses a different allocation methodology that is unique to the Metro UGB. This unique allocation methodology reflects the fact that the Metro UGB functions as a single housing market with

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[11] See Metro COO/Staff Recommendations to Metro Council. Accessed via:
https://www.oregonmetro.gov/sites/default/files/2024/08/26/2024-UGM-COO-staff-recommendation.pdf

many different jurisdictions; there is also better data availability for the Metro UGB that allows for more nuanced indicators. Unique elements of the allocation methodology for the Metro UGB include a more refined measure that captures access to jobs and taking existing housing affordability and recent housing production into consideration when allocating existing, unmet housing needs. Each component of the methodology is allocated using the following indicators and weights:

- Units needed for underproduction:
  - **Production:** 50% from the city's rate of housing unit production relative to the UGB-wide average as calculated RLIS's parcel-based Housing Layer, which provides unit counts and year built for parcels. Units built within the last five years of the model run are calculated as a share of total units within each jurisdiction and UUL **(Inverse weight – see below)**
  - **Affordability**: 50% from the percentage of a city's housing units that are rental 0-50% AMI units, relative to the UGB-wide average, using 2020 CHAS 5-year data **(Inverse weight).** Urban unincorporated lands within the UGB have their affordability level calculated using tract-level CHAS data for tracts with at least 30% of their area in the UUL. However, given that as of this run of the model CHAS is relatively out-of-date compared to the ACS/PUMS products, we try to correct for this by applying the affordability rate from CHAS to the much more accurate unit counts calculated with RLIS's Housing Layer.
- Units needed for people experiencing homelessness:
  - **Production:** 50% from the city's rate of housing unit production relative to the UGB-wide average as calculated RLIS's parcel-based Housing Layer, which provides unit counts and year built for parcels. Units built within the last five years of the model run are calculated as a share of total units within each jurisdiction and UUL **(Inverse weight – see below)**
  - **Affordability**: 50% from the percentage of a city's housing units that are rental 0-50% AMI units, relative to the UGB-wide average, using 2020 CHAS 5-year data **(Inverse weight).** Urban unincorporated lands within the UGB have their affordability level calculated using tract-level CHAS data for tracts with at least 30% of their area in the UUL. However, given that as of this run of the model CHAS is relatively out-of-date compared to the ACS/PUMS products, we try to correct for this by applying the affordability rate from CHAS to the much more accurate unit counts calculated with RLIS's Housing Layer.

Future need is allocated to cities (including the unincorporated urbanizable areas for which they have planning authority based on intergovernmental agreements) and UULs using the following indicators and weights:

- Units needed to accommodate population growth:
  - **Residential capacity**: 50% from the city's share of jurisdictional residential capacity, as calculated with Metro's UGR process, wherein capacity in Metro's unincorporated urbanizable areas has been assigned to their future responsible jurisdictions.
  - **Jobs access**: 50% from the city's share of UGB employed residents who live within areas with adequate transit or walking access to jobs, as calculated with TriMet and SMART's most recent transit schedule data and OpenStreetMap street grid data (see below)

- Units needed to accommodate demographic change:
  - **Current population:** 50% from the city's share of current (baseline) population, as calculated with 2020 block-level Decennial Census data. The choice to use Decennial Census is driven by the need to allocate population to the complex UUL boundaries as well as cities, which can only be done with granular geographies like census blocks
  - **Jobs access**: 50% from the city's share of UGB employed residents who live within areas with adequate transit or walking access to jobs, as calculated with TriMet and SMART's most recent transit schedule data and OpenStreetMap street grid data (see below)
- Units lost to second and vacation homes:
  - **Second and vacation homes**: 100% from the city's share of all current UGB second and vacation homes as calculated with 2020 Decennial Census place-level counts

Measuring Jobs Access

One of the weights used in allocating units for population growth to Metro cities is a measurement of transit access. The chosen approach uses current TriMet and SMART's schedule data, OpenStreetMap street grid data, and open-source trip-routing software to plot transit and walking trips from every Transit Analysis Zone (TAZ) in the Metro UGB to every other TAZ in the Metro UGB. Walk and transit access was chosen specifically to be most applicable to all households, regardless of income and access to private vehicles as a mode of transportation. Joining this with Longitudinal Employer-Household Dynamics (LEHD) job location data spatially allocated to the TAZs, we can calculate the number of jobs reachable by transit within a 60-minute journey, mid-week (two trips are routed from every TAZ, one at 8:00am and one at 8:00pm, and the weighted average of the two job totals is used). The UGBs' TAZs are rank ordered by job access, and a threshold is set at the 20th percentile to denote "transit access" zones. Each TAZ is assigned to a city based on Metro's TAZ forecast data, and where this information is missing, it is assigned based on which city has the largest overlap with any given TAZ. The number of residents living in these "transit access TAZs" is calculated for each jurisdiction, and the jurisdiction's share of the UGB's total is used as the final weight.

Figure 12. TAZ Transit Access Zones Used to Calculate the Jobs Access Weights
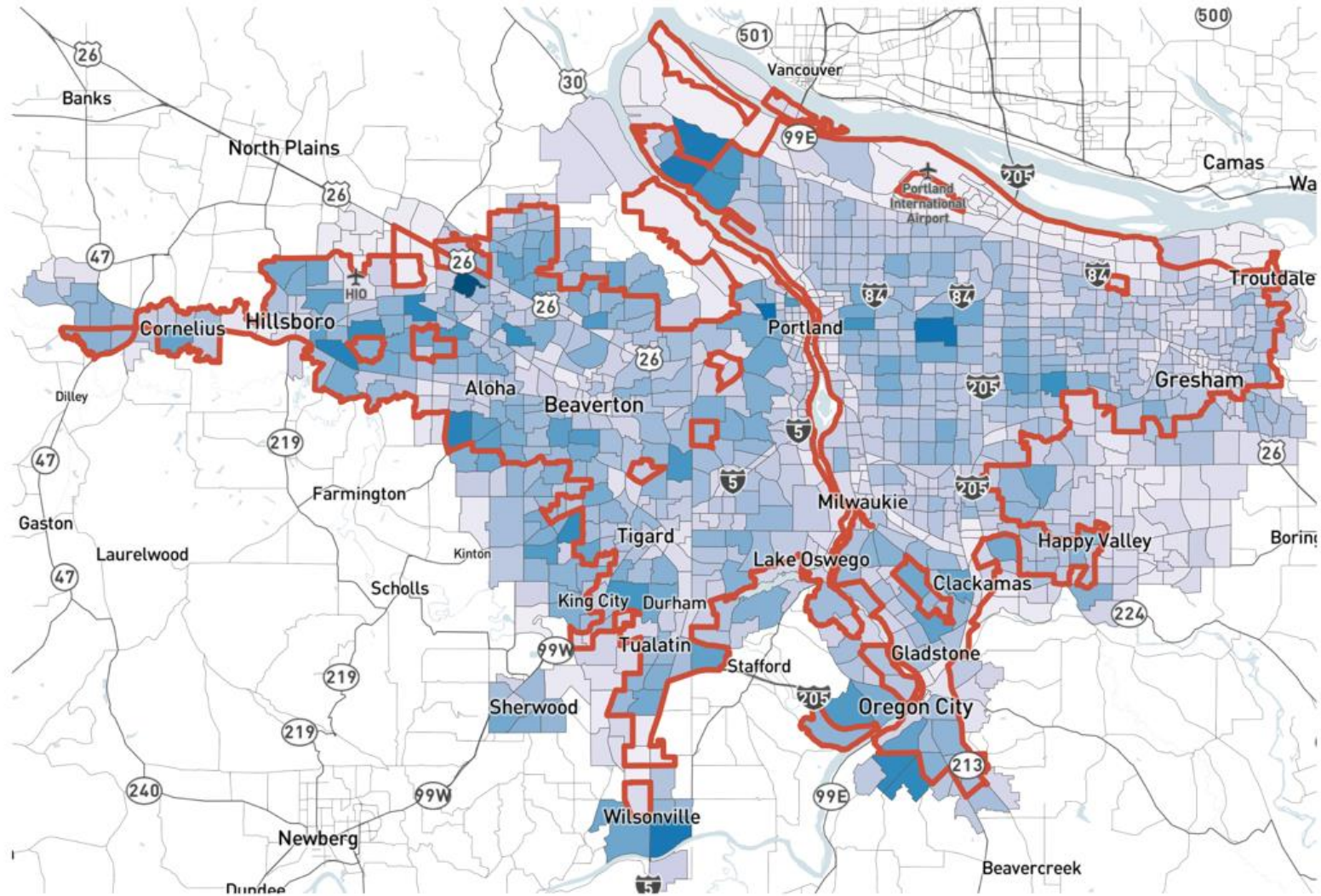
Inverse weighting

Several weights used in the Metro UGB Suballocation Methodology are termed "inverse weights." These weights are inverted so as to proportionally "credit" cities that have outperformed others in the recent past in terms of affordability and production. The intent behind this system is to ensure that no city becomes less affordable after receiving its allocation. The inverse weighting system works in the following manner, using the "Production" weight as an example:

- Each city's rate of housing unit production is calculated by taking the previous five years of total permits from HUD/Census Bureau's permit data (SOCDS) counts and converting them to a percentage of current total units sourced from ACS 2022 5-year place-level estimates.
- The UGB average is calculated from among all cities.
- The "delta," or nominal units needed for each city to match the UGB's average rate, is calculated. Cities above the rate receive a weight of 0.
- All the nominal deltas are converted to percent of the total delta. This percentage becomes half the weight used to allocate underproduction and units needed to accommodate homelessness.

Example Delta Calculation for Inverse Weights	
UGB average rate of housing unit production: 7% of current units (average of all cities)	
City X	**City Y**
City X's current units: 12,000 City X's actual production: 600 City X's production rate: 5% of current units To match the UGB rate of housing production, City X should have built 840 units (7% * 12,000) Its delta is 240 units (840 − 600) If the sum of all cities' deltas was 500, City X would have 240/500 or 48%. Because recent production is only half of the weight for the current need allocation, this 48% would be averaged with the weight calculated for affordability to arrive at a blended weight.	City Y's current units: 15,000 City Y's actual production: 1,500 City Y's production rate: 10% of current units To match the UGB rate of housing production, City Y only needed to build 1,050 units (7% * 15,000) Since it produced more than the average, it has no delta, and its weight would be zero.

Next, each component of housing need is distributed by household income using the same distributions as the Draft Methodology for all other regions. After the weighted suballocation process, the units allocated to each city are totaled up by income category and component, mirroring the allocations given to UGBs outside Metro. In the case of unincorporated lands, the suballocations are totaled up by the governing county into one suballocation total for each of the three counties in the Metro region. The following figure displays the range of current affordability of units affordable at 60% and less of AMI (blue bar) compared to the share that would be affordable at less than 60% if the production target were met.

Figure 13. Distribution of Units Affordable at Less Than 60% AMI by City– Current vs After Target Met
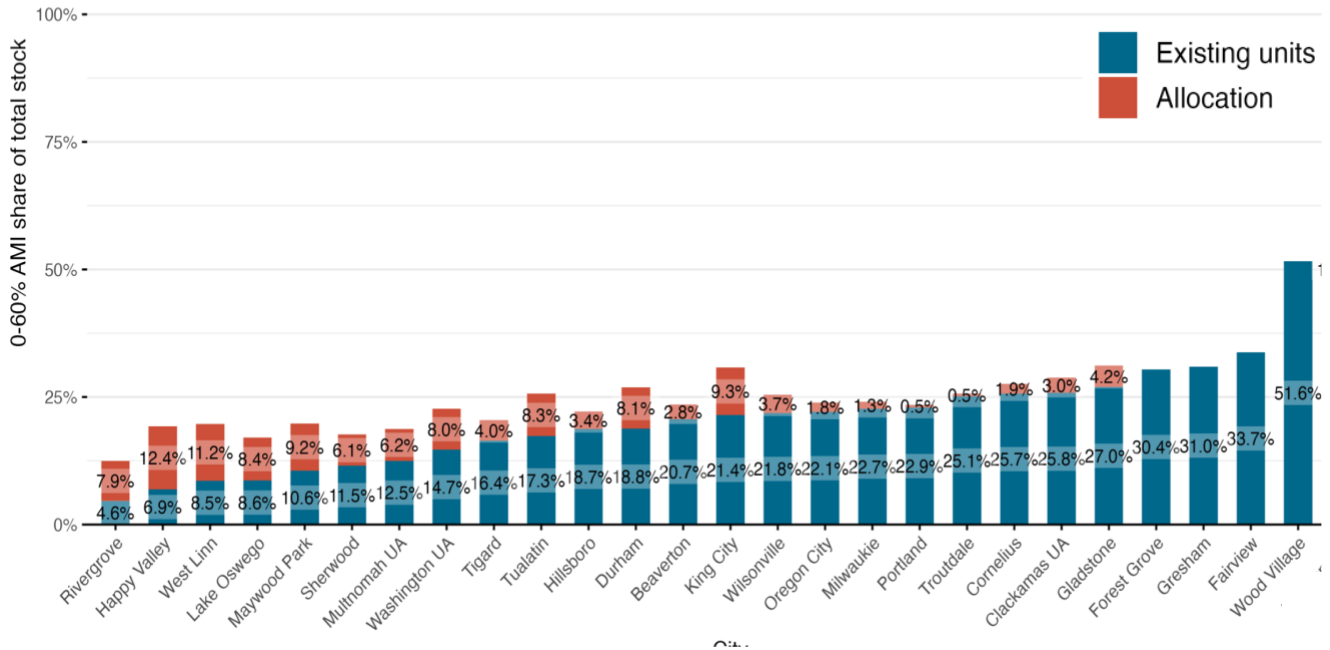
Future Methodological Changes

As noted, Metro's Urban Growth Report (UGR) will not be finalized until later in 2024. The OHNA Final Methodology will utilize Metro's adopted growth forecast trend line and capture rate consistent with state statutes.[12]

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[12] See ORS 184.453(3)(e) which requires DAS to consider Metro's projected housing needs and ORS 197A.348(2) which requires Metro to project housing need for the components of need that are included in the OHNA.

Draft Methodology Results

This section provides preliminary statewide and regional results of total 20-year housing need by income and need component based on the Draft Methodology. Local city-level results are provided by income level in Appendix B beginning on page 47.

Preliminary Statewide Results

Figure 14. Statewide and Regional 20-Year Total Housing Need by Income Level

Region	Income Level					Total Need
	0-30%	30-60%	60-80%	80-120%	120%+	
Central	6,692	8,262	7,352	12,055	20,680	55,042
Metro	32,486	31,190	20,499	35,035	69,600	188,810
Northeast	3,878	2,836	2,103	4,768	7,031	20,616
Northern Coast	3,731	2,972	1,236	3,436	3,678	15,053
Southeast	2,489	1,994	1,106	2,210	3,737	11,536
Southwest	9,658	10,202	5,823	9,841	21,791	57,314
Willamette Valley	28,090	27,173	14,962	29,966	44,740	144,931
Oregon	87,024	84,629	53,081	97,310	171,258	493,301

Figure 15. Statewide 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	13,456	26,349	-	17,179	30,040	87,024
31-60%	15,747	2,368	-	24,225	42,288	84,629
61-80%	7,255	888	-	16,109	28,828	53,081
81-120%	6,483	-	11,958	28,475	50,395	97,310
120%+	2,664	-	6,130	59,192	103,271	171,258
Oregon	45,606	29,606	18,088	145,180	254,822	493,301

Preliminary Regional Results

Figure 16. Draft Methodology Regions (from page 9)

Current Region
- Central
- Metro
- Northeast
- Northern Coast
- Southeast
- Southwest
- Willamette Valley
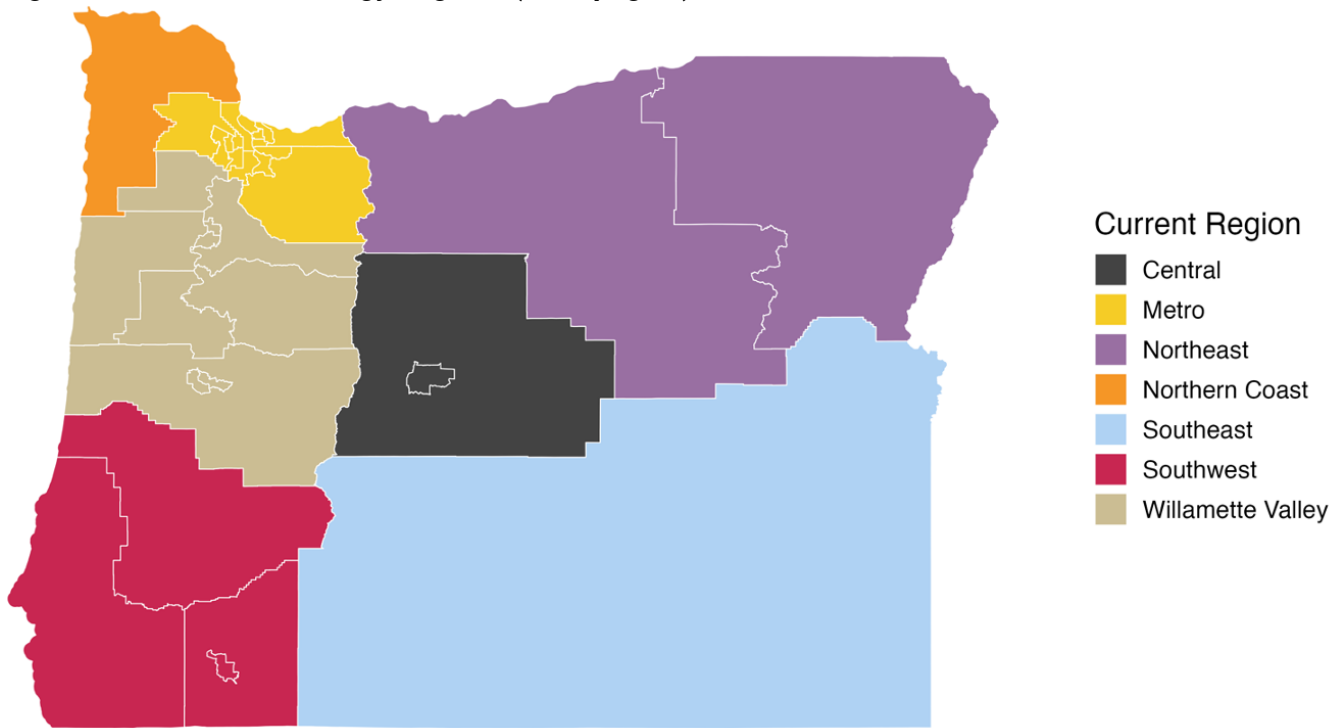
Figure 17. Central Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	707	1,923	-	958	3,104	6,692
31-60%	1,153	173	-	1,635	5,301	8,262
61-80%	921	65	-	1,501	4,866	7,352
81-120%	686	-	1,801	2,256	7,313	12,055
120%+	246	-	1,680	4,421	14,333	20,680
Central	3,713	2,161	3,481	10,771	34,917	55,042

Figure 18. Metro Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	4,274	9,806	-	6,569	11,837	32,486
31-60%	5,391	881	-	8,893	16,025	31,190
61-80%	2,738	331	-	6,221	11,210	20,499
81-120%	2,254	-	2,297	10,879	19,605	35,035
120%+	703	-	1,107	24,193	43,597	69,600
Metro	**15,360**	**11,018**	**3,404**	**56,754**	**102,273**	**188,810**

Figure 19. Northeast Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	859	1,251	-	943	825	3,878
31-60%	669	112	-	1,096	958	2,836
61-80%	299	42	-	940	822	2,103
81-120%	263	-	1,359	1,679	1,468	4,768
120%+	156	-	761	3,262	2,852	7,031
Northeast	**2,246**	**1,406**	**2,121**	**7,919**	**6,925**	**20,616**

Figure 20. Northern Coast Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	1,007	1,757	-	536	431	3,731
31-60%	1,125	158	-	936	753	2,972
61-80%	450	59	-	403	324	1,236
81-120%	357	-	1,284	995	800	3,436
120%+	159	-	636	1,598	1,285	3,678
Northern Coast	**3,098**	**1,974**	**1,919**	**4,468**	**3,593**	**15,053**

Figure 21. Southeast Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	643	815	-	676	354	2,489
31-60%	560	73	-	893	468	1,994
61-80%	253	27	-	542	284	1,106
81-120%	329	-	287	1,045	548	2,210
120%+	176	-	181	2,219	1,162	3,737
Southeast	**1,962**	**916**	**468**	**5,375**	**2,815**	**11,536**

Figure 22. Southwest Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	1,070	4,125	-	1,983	2,481	9,658
31-60%	1,604	371	-	3,654	4,573	10,202
61-80%	671	139	-	2,227	2,786	5,823
81-120%	592	-	1,581	3,406	4,262	9,841
120%+	414	-	616	9,222	11,540	21,791
Southwest	**4,350**	**4,635**	**2,197**	**20,491**	**25,642**	**57,314**

Figure 23. Willamette Valley Region 20-Year Needed Housing Units by Income Level and Component

Income Level	Current Need		Future Need			Total Need
	Underproduction	Units for Homelessness	Second & Vacation Homes	Demographic Units	Pop. Growth Units	
0-30%	4,897	6,672	-	5,514	11,008	28,090
31-60%	5,245	600	-	7,119	14,210	27,173
61-80%	1,923	225	-	4,277	8,537	14,962
81-120%	2,002	-	3,349	8,215	16,400	29,966
120%+	812	-	1,149	14,278	28,502	44,740
Willamette Valley	**14,877**	**7,496**	**4,498**	**39,402**	**78,657**	**144,931**

Preliminary Local Results

See Appendix B beginning on page 47.

Data Sources and Updates

The OHNA Draft Methodology relies on publicly available data, which are updated and released throughout the calendar year. Figure 24 below lists the variables used throughout the OHNA Draft Methodology, their sources, and when they are typically updated. The regional results shared in the prior chapter will be updated with the latest data identified in Figure 24 below before the OHNA Methodology is finalized by January 1, 2025.

Figure 24. Publicly Available Data Sources and Release Schedules

Category	Component	Data Input	Source	Area	Annual Release Schedule
Many	Regional Income Limits as a Percent of Area Median	AMI levels to allocate units to incomes	HUD	Region	April
Current Need	Underproduction	Total households	Census PUMS for American Community Service (ACS) 1-year estimates	Region	October
		Missing households			
		Total housing units			
		Second and vacation homes			
		Uninhabitable units			
		Rate of cost burdening (to allocate units to income levels)			
	Units Needed for Homelessness	Point-In-Time count	HUD / OHCS	Region	October
		McKinney-Vento data	Oregon Dept. of Education	Region	Varies
		EHA and SHAP data (to allocate units to income levels)	OHCS	Region	September

Category	Component	Data Input	Source	Area	Annual Release Schedule
Future Need	Units Needed for Population Growth	Population forecasts	PSU	Region	Rotating 4-year cycle for a set of counties and their UGBs
		Number of people living in group quarters	Census PUMS	Region	October
		Average household size			
		Regional income distribution (to allocate units to income levels)			
	Units Lost to Second and Vacation Home Demand	Total housing units	Census PUMS	Region	October
		Units identified as used for "seasonal or recreational purposes"			
		Year built for units identified as used for "seasonal or recreational purposes" (to allocate units to income levels)			
	Units Needed for Demographic Change	Population forecasts by age cohort, by region	PSU	Region	Rotating 4-year cycle for a set of counties and their UGBs
		Number of people living in group quarters	Census PUMS	Region	October
		Average household size			
		Regional income distribution (to allocate units to income levels)			

Category	Component	Data Input	Source	Area	Annual Release Schedule
Allocating Needed Housing	Local Allocation Factor	UGB's current share of regional population	PSU	UGB	Rotating 4-year cycle for a set of counties and their UGBs
		UGB's current share of regional jobs	Census LEHD-LODES	UGB	December
		UGB's current share of regional units identified as used for "seasonal or recreational purposes"	2020 Census	UGB	December
Metro	Metro UGB	Metro's UGR Future Need Totals	Metro	UGB	Variable
	Local allocation factor	City's share of UGB's jobs and residents in transit accessible areas	Census LEHD-LODES	City (Metro only)	Variable
	Local allocation factor	City's share of UGB's jobs and residents in transit accessible areas	TriMet GTFS	City (Metro only)	
	Local allocation factor	City's share of UGB's affordable units	HUD CHAS	City (Metro only)	September
	Local allocation factor	City's share of UGB's recent housing production	HUD SOCDS	City (Metro only)	Monthly
	Local allocation factor	City's share of UGB's future population growth	Metro Distributed Forecast	City (Metro only)	Variable

Notes: All references to Census PUMS are for 1-year ACS data.
PSU forecasts come from the Population Research Center: https://www.pdx.edu/population-research/population-forecasts
LEHD-LODES is the Longitudinal Employer Household Data Origin-Destination Employment Statistics: https://lehd.ces.census.gov/data/
TriMet GTFS is the General Transit Feed Specification: https://developer.trimet.org/GTFS.shtml
HUD CHAS is the Comprehensive Housing Affordability Survey: https://www.huduser.gov/portal/datasets/cp.html
HUD SOCDS is the State of the Cities Data Systems which is calculated from Census Data: https://www.huduser.gov/portal/datasets/socds.html

Appendix A: PSU Homeless Research & Action Collaborative Recommended Approach for Estimating Counts of Individuals Experiencing Homelessness

Memo begins on next page.

MEMO

TO: Megan Bolton, Oregon Housing & Community Services

FROM: Marisa A. Zapata, PhD, Portland State University
                  Franklin Spurbeck, Portland State University

DATE: September 10, 2024

SUBJECT: Homeless population and household estimates for OHNA

In 2020, the State of Oregon created its first regional housing needs analysis. As part of this new analytical and geographic approach, the state also included housing needs estimates for people experiencing homelessness. Housing needs assessments typically use US Census data, but the Census is known for not counting people experiencing homelessness well. This memo provides a recommendation on how to estimate the housing needs for people experiencing homelessness based on more relevant data sets. The proposed methodology uses an annualized point in time count of unsheltered households, the number of households served in shelter over a year, and households doubled-up based on K-12 student data and US Census data.

The draft OHNA methodology includes a recommendation about how to estimate the number of housing units needed for people experiencing homelessness. The homelessness estimates used for this approach had several limitations. To create a more robust methodology for estimating the number of housing units needed for people experiencing homelessness, PSU-HRAC reviewed additional literature, assessed various data sets, and met with continua of care for input. In this memo, we present a recommended methodology for the initial creation of OHNA numbers. We created estimates for two geographies to demonstrate how the methodology works. We then document future considerations when conducting OHNAs along with additional research that responds to those considerations.

Recommended Methodology & Data Sets

We recommend combining portions of four data sets to better estimate the number of people experiencing homelessness in an OHNA region.

Our approach uses CoC Point-In-Time Count (PITC) data and McKinney-Vento Student Data (MVSD) for children enrolled in K-12 public schools. We also utilize CoC Longitudinal Systems Analysis (LSA) data, By-Name Lists (BNL), and American Community Survey (ACS) data. Details on each data set follow.

Point-In-Time Count (PITC)

The PITC is a one-night count of people experiencing homelessness. The PITC includes a count of people living unsheltered (PITCu), and people living in shelter and transitional housing (PITCs). The sheltered and transitional housing numbers are submitted every year based on individuals sleeping in shelters that submit data into the CoC's Homeless Management Information System (HMIS). A count of people living unsheltered occurs a minimum of every other year. Some CoCs administer the unsheltered survey each year.

Longitudinal Systems Analysis (LSA)

The LSA is an annual report about the people served by a CoC. It includes the number of people who accessed emergency shelter and transitional housing in a year (LSAs).

By-Name Lists (BNL)

By-name lists are created by CoCs for a variety of purposes. Some are updated frequently and include information about where people are currently living. A BNL that includes people living unsheltered can augment or replace PITCu data (BNLu).

McKinney-Vento Student Data (MVSD)

The MVSD is a count of students enrolled in K-12 schools identified as experiencing homelessness. Unlike HUD, who oversees the PIT and LSA, schools count students who are living doubled-up as homeless. That means the count includes students living unsheltered (MVSDu), sheltered (MVSDs), or doubled-up (MVSDd). The MVSD is the only widely collected primary data set about homelessness that includes doubled-up people.

American Community Survey (ACS)

The ACS is administered by the US Census Department on a continual basis. Collected data is used to create detailed estimates of people and housing information. We use ACS data to estimate the population living doubled-up (ACSdu).

Methodology

Methodology Overview

We recommend the following formula for calculating the number of households that need housing. It combines:

- **Unsheltered data:** PITC unsheltered data that is annualized and converted to household numbers; or, the household count from BNL across one year;

- **Sheltered data:** Households served in shelter as reported per LSAs; and,

- **Doubled-up data:** MVSD for doubled-up student households plus ACS doubled-up households without children enrolled in K-12 schools.

All data are converted to households (HH), and annualized when the data set is not an annual count. We provide an example of the estimated housing need for two geographies here:

Table 1: Example of Estimated Housing Need

Region	Annualized PITCu (2023 or 2024)	LSA (2023)	MVSD (2022-23)	ACSdu (2022)	Total estimate
Metro	4,777	8,200[1]	2,750	4,301	20,028
Marion-Polk[2]	1,157	1,282	955	1,424	4,818

Detailed Methodology

All data were converted into households, and annualized based on a multiplier when an annual data set was not available.

$$[\, (PIT_{unsheltered} * PIT_{uannualizedrate} \, / \, PIT_{uhh}) \text{ or } (BNL_{hh}) \,] + LSA_{shelterhh}$$
$$+ \, [\, (MVSD_{unsheltered} + MVSD_{motel} + MVSD_{doubledup}) \, / \, ACS_{hhsize} \,] + (ACS_{doubleduphh} - ACS_{doubledup5\text{-}18hh})$$
$$= \textit{Total needed households for people experiencing homelessness}$$

where:

$PIT_{uannualizedrate}$ = an individual-level multiplier determined by how long an individual reports experiencing homelessness in the past year (Shinn et. al. 2024)

ACS_{hhsize} = Average number of children per family in a given OHNA region, derived from ACS data (same as draft OHNA methodology)

Unsheltered estimate

The unsheltered estimate can come from two data sources. One starts with the individual-level PIT count unsheltered data and applies an annualization rate derived from Shinn et. al. (2024). The other approach to estimating the number of unsheltered people living in the region is to use a current, deduplicated by-name list for one year. Details about each approach follow.

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[1] We were unable to get LSA data from Clackamas or Washington counties. Given that the majority of people experiencing homelessness in the Metro region live in Multnomah county, we expect this to be an underestimate but only slightly. This data comes from a JOHS dashboard.
[2] Marion-Polk CoC is not an OHNA region. However, we had complete data for the CoC, and included it for that reason.

Annualized PIT Count Unsheltered Data

We recommend beginning with each CoC's PITCu data, still at the individual level. Using a method developed by Shinn et. al. (2024), annualize the unsheltered PIT estimate by weighting each individual by the inverse of how long that person reports experiencing homelessness in the past year. Individuals for whom there is no length of time homeless data can either be weighted at one (representing only themselves), or can have a weight assigned to them based on the distribution of known lengths previously homeless from the rest of the PITCu. For categorical responses, such as "0 to 3 months," we assume the person has been experiencing homelessness for the time at the upper end of the range (in this example, 3 months), which results in a more conservative annualized estimate.

To go from annualized number of people to annual number of households, we multiply the annualized number by the share of unsheltered respondents who were in households, under the assumption that being in a household does not affect one's time spent homeless.

Table 2: Example of Annualized Unsheltered Rate

Client ID	How long have you been homeless this time?	Length homeless (integer)	Inverse (12 months/ integer months)	Weight
00001	0 - 3 months	3 months	12/3	4
00002	24 - 35 months	12 months	12/12	1
00003	No data	12 months	12/12	1

In the above example, we go from a PITCu of three people to an annual estimate of 6 people.

Unsheltered By-Name List

For counties that keep a well-maintained list of people experiencing unsheltered homelessness, we recommend using that list to reflect the number of people experiencing unsheltered homelessness. This number *should* be higher or close to the annualized PIT unsheltered count.

Sheltered estimate

We recommend using either an LSA or pulling an HMIS report of all people who have used housing services for the given year. As much as possible, deduplicate by household; for households with multiple stays, include the more recent stay. Exclude households served in PSH or RRH, who are already in housing units. Exclude households who have exited the homeless services system to permanent housing and have not re-entered homelessness.

Doubled-up estimate

McKinney-Vento Estimate

We recommend using the most recent McKinney-Vento numbers available. Use doubled-up, motel/hotel, and unsheltered student numbers, but do not use the sheltered student numbers. Publicly available McKinney-Vento data is redacted whenever the exact number of students in any instance is less than five. In those instances, replace the redaction with a 1. Once the number of students has been aggregated up to the OHNA region, divide by the average number of school-aged students per household in that OHNA region to move from an estimate of doubled-up students to doubled-up households.

ACS estimate

This estimate is based on a new method developed by Richard et. al. (2022), and uses census data to estimate the number of individuals who are doubled-up in a particular geography. We modified the method to estimate doubled-up households instead of doubled-up individuals. We then used this as the basis for estimating the number of households experiencing doubled-up homelessness. We further modified the Richard et. al. method by excluding from the estimate all doubled-up households that contain a child age 5-18, as we assume households with doubled-up children are accounted for by McKinney-Vento data.

We sum the McKinney-Vento estimate of households experiencing doubled-up homelessness and the ACS estimate of households experiencing doubled-up homelessness to create the overall estimate of doubled-up homelessness in each OHNA region.

Data Notes

We recommend using the most recent and/or valid data regardless of whether the data all come from the same year. The number of people experiencing homelessness can change rapidly based on local contexts. Data sets are also updated at different times. In this report we are using data from 2022 (ACS), 2023 (PITCu, MVSD, LSA), and 2024 (PITCu).

The selected data sets include a mix of one day and annual counts. We identified a method to annualize the PIT unsheltered data. CoCs that manage an updated BNL that includes people living unsheltered and can be deduplicated should use their BNL annual count instead. We classified the ACS as an annual count, even though it is best understood as something in between one day and an annual count.

Not all data sets include household counts. We use the household size calculations from the EcoNW work to calculate household size for the MVSD. EcoNW calculated the average number of school-aged children per household in each OHNA region, then divided the MVSD count by that number, thereby creating an estimate of doubled-up households from the MVSD count of doubled-up students. The ACS household calculation for people living doubled-up involved creating a flag for the head of household for each dwelling unit that contained individuals who

were flagged as being doubled-up. We then used this doubled-up head of household flag as the basis for estimating the number of doubled-up households in the population.

Each data set should be deduplicated within itself. We expect that some deduplication will happen across the data sets depending on the CoC. However, we recognize that there will be duplication. In particular, identifying people who are moving out of shelter and onto the street, or moving off the street onto someone's couch, can be challenging. Despite the likely probability of someone being reflected in multiple data sets, we also know that there are many people experiencing homelessness who are not counted at all.

The methodology and corresponding data should *not* be used beyond the purpose of the OHNA. For instance, some CoCs classify shelter versus unsheltered differently based on the data set. Or, a BNL may include people in shelter as well. The purpose of this methodology is to provide a robust process for estimating the needed housing units for people experiencing homelessness, regardless of their circumstances.

Future areas of improvement

- Duplication between lists. Many people experiencing homelessness move between emergency shelter, unsheltered homelessness, and being doubled-up. Without data that includes personally identifiable information, it will be difficult to de-duplicate across datasets.

- Better usage of BNL lists, such as Built for Zero lists or Coordinated Entry. At this time, there is little consistency across the state on how such by-name lists are created or maintained. However, such lists have the potential to be more accurate than extrapolating from other datasets.

- More finesse in estimating the share of annualized unsheltered count that is in a household.

Reference List

Joint Office of Homeless Services. (2024, August 15). *JOHS System Performance Quarterly Report - FY24 Q4.* Tableau Public.
https://public.tableau.com/app/profile/johs/viz/JOHSSystemPerformanceQuarterlyReport-FY24Q4/Report

Richard, M. K., Dworkin, J., Rule, K. G., Farooqi, S., Glendening, Z., & Carlson, S. (2022). Quantifying Doubled-Up Homelessness: Presenting a New Measure Using U.S. Census Microdata. *Housing Policy Debate, 32*, 1-22. https://doi.org/10.1080/10511482.2021.1981976

Shinn, M., Yu, H., Zoltowski, A. R., & Wu, H. (2024). Learning more from homeless Point-in-Time Counts. *Housing Policy Debate, 34*, 1-10. https://doi.org/10.1080/10511482.2024.2306607

Appendix B: Preliminary Local Results

Results begin on next page.

Central region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Bend UGB	1,780	3,962	4,738	4,201	7,074	11,858	31,833
Redmond UGB	526	1,231	1,489	1,321	1,901	3,441	9,384
Deschutes Outside UGB Area	187	309	528	484	865	1,555	3,741
Prineville UGB	161	391	444	391	576	1,005	2,806
Madras UGB	116	278	323	286	410	732	2,030
Crook Outside UGB Area	85	140	240	220	393	706	1,699
Sisters UGB	90	173	227	203	411	656	1,670
La Pine UGB	53	111	140	125	223	370	969
Jefferson Outside UGB Area	26	43	74	68	121	218	525
Culver UGB	14	33	36	32	52	85	239
Metolius UGB	8	20	24	21	29	53	147

Metro region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Portland	2,813	6,258	8,473	5,927	11,845	23,763	56,266
Washington UA	1,772	7,026	4,790	2,864	3,969	7,043	25,692
Hillsboro	724	2,089	2,149	1,434	2,408	5,011	13,090
Beaverton	724	2,091	2,150	1,434	2,402	5,007	13,084
Clackamas UA	751	2,604	2,122	1,340	2,055	4,003	12,124
Gresham	571	1,431	1,751	1,206	2,109	4,548	11,044
Tigard	420	1,178	1,256	843	1,429	3,000	7,706
Happy Valley	350	1,059	1,029	678	1,111	2,292	6,169
Lake Oswego	351	1,313	942	573	920	1,553	5,301
Oregon City	202	539	611	415	713	1,519	3,798
Tualatin	270	1,123	718	419	551	932	3,742
West Linn	248	1,105	631	353	451	633	3,173
Milwaukie	135	338	412	284	503	1,073	2,609
Wilsonville	145	529	393	242	389	678	2,231
Forest Grove	96	221	299	209	376	819	1,925
King City	115	433	313	191	283	509	1,729
Troutdale	77	182	236	164	299	636	1,518
Sherwood	102	395	279	169	238	433	1,514
Cornelius	74	221	219	145	233	492	1,310
Gladstone	86	348	230	136	188	324	1,227
Multnomah UA	66	196	192	127	217	436	1,169
Fairview	48	110	150	105	189	410	963
Wood Village	23	54	73	51	93	200	470
Johnson City	16	58	46	29	42	83	258
Durham	18	77	47	27	35	56	242
Maywood Park	12	44	34	21	30	58	187
Rivergrove	4	17	9	5	11	10	52
Clackamas Outside UGB Area	159	360	488	341	637	1,346	3,173
Canby UGB	121	354	355	235	397	814	2,154
Sandy UGB	82	234	244	163	275	574	1,491
Molalla UGB	62	177	184	123	205	431	1,121
Estacada UGB	39	110	116	78	133	276	713
North Plains UGB	38	99	115	78	133	287	712
Washington Outside UGB Area	33	74	101	70	132	278	655
Banks UGB	9	27	26	17	28	59	159
Gaston UGB	4	6	5	3	5	10	31
Barlow UGB	0	1	1	1	1	2	6
Multnomah Outside UGB Area	-	-	-	-	-	-	-

Northeast region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Hermiston UGB	170	578	430	322	554	984	2,868
Pendleton UGB	124	443	303	218	400	655	2,018
Hood River UGB	112	335	239	176	519	649	1,919
The Dalles UGB	116	421	284	203	362	601	1,870
La Grande UGB	98	357	243	175	300	514	1,590
Hood River Outside UGB Area	68	143	166	142	363	554	1,368
Baker City UGB	71	249	167	119	244	371	1,151
Umatilla UGB	53	188	132	96	170	290	875
Boardman UGB	45	157	113	84	141	251	746
Wasco Outside UGB Area	31	65	75	64	165	251	620
Milton-Freewater UGB	35	128	85	60	104	174	551
Umatilla Outside UGB Area	22	46	53	45	116	177	438
Enterprise UGB	23	78	53	38	83	123	374
Stanfield UGB	16	52	43	33	56	105	288
Sumpter UGB	13	4	3	2	162	96	267
John Day UGB	16	56	37	26	56	82	257
Cascade Locks UGB	11	33	27	21	48	72	200
Morrow Outside UGB Area	8	17	20	17	44	67	165
Heppner UGB	10	33	21	15	42	53	164
Island City UGB	10	35	25	18	31	54	163
Joseph UGB	9	24	16	12	53	53	158
Irrigon UGB	10	35	24	17	28	50	155
Union UGB	9	31	21	15	35	50	152
Weston UGB	9	28	22	16	29	51	146
Elgin UGB	9	34	21	15	30	45	144
Maupin UGB	7	12	9	7	57	46	131
Mosier UGB	6	10	7	6	45	37	105
Athena UGB	6	22	16	11	19	34	103
Pilot Rock UGB	6	21	13	9	26	32	101
Condon UGB	5	13	8	6	35	30	91
Prairie City UGB	5	17	11	8	24	28	88
Wallowa UGB	5	14	9	6	22	23	74
Dufur UGB	4	15	11	8	15	24	72
Arlington UGB	4	9	6	4	25	22	67
Halfway UGB	3	7	8	7	17	26	64
Gilliam Outside UGB Area	4	13	9	7	15	22	64
Canyon City UGB	4	14	9	6	14	19	62
Huntington UGB	4	13	9	7	11	20	61
Moro UGB	3	0	0	0	38	21	60
Granite UGB	3	9	5	4	22	20	60
Echo UGB	3	12	8	6	12	20	58

Northeast region (Continued) UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Fossil UGB	3	10	6	4	17	18	55
North Powder UGB	3	9	7	5	8	15	44
Richland UGB	2	4	2	2	19	14	41
Lostine UGB	2	2	1	1	21	13	39
Seneca UGB	2	4	3	2	16	13	38
Cove UGB	2	8	5	4	6	10	33
Ione UGB	2	6	4	3	8	11	33
Imbler UGB	2	2	1	1	16	11	32
Rufus UGB	2	6	4	3	8	10	31
Ukiah UGB	2	5	4	3	9	10	31
Mt. Vernon UGB	2	7	4	3	5	9	29
Adams UGB	2	5	3	2	8	9	28
Haines UGB	2	3	2	1	12	9	27
Spray UGB	2	5	3	2	7	8	26
Wasco UGB	2	6	4	3	5	9	26
Long Creek UGB	1	3	2	1	10	8	24
Mitchell UGB	1	3	2	1	10	8	24
Lonerock UGB	1	3	2	1	8	7	21
Lexington UGB	1	4	2	2	4	5	17
Grass Valley UGB	1	2	1	1	6	5	16
Dayville UGB	1	3	2	2	3	5	16
Helix UGB	1	4	2	2	3	5	15
Unity UGB	1	0	0	0	7	4	11
Sherman Outside UGB Area	0	1	1	1	3	4	10
Monument UGB	1	2	1	1	2	3	9
Summerville UGB	0	1	1	1	2	4	9
Wheeler Outside UGB Area	1	2	1	1	2	3	9
Antelope UGB	0	0	0	0	4	3	8
Shaniko UGB	0	0	0	0	4	2	7
Baker Outside UGB Area	-	-	-	-	-	-	-
Grant Outside UGB Area	-	-	-	-	-	-	-
Union Outside UGB Area	-	-	-	-	-	-	-
Wallowa Outside UGB Area	-	-	-	-	-	-	-

Northern Coast region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
St. Helens UGB	149	644	465	192	312	419	2,032
Astoria UGB	123	543	372	153	258	319	1,645
Seaside UGB	100	374	271	112	357	331	1,446
Tillamook Outside UGB Area	61	118	206	89	375	429	1,217
Tillamook UGB	89	393	273	113	176	231	1,185
Columbia Outside UGB Area	58	113	198	85	361	412	1,169
Warrenton UGB	84	353	262	108	194	252	1,169
Scappoose UGB	82	343	262	109	184	255	1,154
Clatsop Outside UGB Area	32	62	108	46	197	225	638
Cannon Beach UGB	37	113	79	32	208	145	577
Rockaway Beach UGB	30	63	49	20	238	149	519
Manzanita UGB	21	44	34	14	167	104	363
Gearhart UGB	23	68	47	19	132	90	356
Rainier UGB	24	107	73	30	47	61	318
Clatskanie UGB	20	88	61	25	41	52	266
Vernonia UGB	18	81	56	23	37	48	245
Nehalem UGB	14	51	40	17	51	51	209
Bay City UGB	15	66	44	18	33	37	199
Columbia City UGB	11	50	33	14	20	26	144
Garibaldi UGB	10	40	28	12	31	30	141
Wheeler UGB	4	15	10	4	14	11	54
Prescott UGB	0	2	1	1	1	1	6

Southeast region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Klamath Falls UGB	338	1,256	919	498	917	1,531	5,122
Ontario UGB	145	520	404	223	406	714	2,267
Malheur Outside UGB Area	55	131	173	105	239	452	1,099
Klamath Outside UGB Area	29	70	92	56	127	241	585
Lakeview UGB	30	105	80	44	99	149	477
Nyssa UGB	23	83	62	34	69	111	360
Burns UGB	23	85	60	32	65	101	343
Vale UGB	21	74	59	33	63	108	337
Lake Outside UGB Area	16	37	49	30	68	129	314
Hines UGB	13	46	35	19	44	66	209
Merrill UGB	6	21	15	8	17	26	87
Chiloquin UGB	6	19	13	7	21	26	87
Malin UGB	5	16	11	6	14	20	68
Jordan Valley UGB	3	4	3	2	25	18	52
Bonanza UGB	3	8	6	3	13	14	45
Paisley UGB	2	6	5	3	11	12	37
Adrian UGB	2	5	4	2	7	9	28
Harney Outside UGB Area	1	2	3	2	4	8	18

Southwest region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Medford UGB	1,106	3,219	3,533	2,029	2,997	7,512	19,291
Grants Pass UGB	476	1,397	1,510	865	1,294	3,195	8,262
Roseburg UGB	315	983	977	552	825	1,984	5,321
Ashland UGB	186	549	534	301	623	1,140	3,146
Coos Bay UGB	154	484	457	256	441	925	2,563
Central Point UGB	138	435	433	245	346	873	2,333
Brookings UGB	102	274	268	151	445	624	1,762
Douglas Outside UGB Area	67	123	227	139	256	591	1,336
North Bend UGB	75	241	225	126	200	448	1,239
Jackson Outside UGB Area	58	107	196	120	221	510	1,153
Eagle Point UGB	61	185	191	108	160	393	1,037
Winston UGB	51	155	163	93	134	338	882
Sutherlin UGB	53	172	160	89	134	313	869
Bandon UGB	44	100	104	59	240	276	780
Talent UGB	40	122	123	70	110	255	680
Josephine Outside UGB Area	30	55	101	61	113	261	591
Phoenix UGB	35	112	108	61	89	215	584
Gold Beach UGB	33	76	72	41	191	195	575
Myrtle Creek UGB	34	116	99	54	87	186	543
Coquille UGB	31	100	91	50	87	179	507
Reedsport UGB	26	78	67	37	101	143	426
Rogue River UGB	23	69	69	39	64	143	384
Jacksonville UGB	22	64	60	34	76	129	363
Coos Outside UGB Area	17	31	56	34	63	147	331
Cave Junction UGB	19	58	58	33	51	118	317
Shady Cove UGB	18	49	46	26	81	107	308
Canyonville UGB	16	51	48	27	41	94	261
Myrtle Point UGB	16	55	46	25	38	85	250
Lakeside UGB	14	27	25	14	102	80	248
Port Orford UGB	13	27	23	13	98	74	235
Gold Hill UGB	8	25	22	12	22	44	124
Drain UGB	7	24	21	11	18	39	113
Riddle UGB	6	22	20	11	15	37	104
Oakland UGB	5	18	15	9	12	29	83
Curry Outside UGB Area	4	6	12	7	13	31	70
Yoncalla UGB	4	14	12	6	12	22	68
Glendale UGB	3	13	10	6	8	18	54
Powers UGB	3	10	8	4	12	16	50
Butte Falls UGB	2	7	6	3	8	13	37
Elkton UGB	2	4	4	2	11	10	32

Willamette Valley region UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Salem UGB	1,903	6,640	6,285	3,433	6,172	9,900	32,430
Eugene UGB	1,611	5,621	5,282	2,877	5,284	8,299	27,363
Corvallis UGB	548	1,891	1,805	989	1,831	2,882	9,397
Albany UGB	474	1,627	1,578	869	1,576	2,546	8,197
Springfield UGB	462	1,661	1,499	804	1,434	2,247	7,645
McMinnville UGB	272	948	889	484	897	1,397	4,616
Newberg UGB	235	790	789	439	811	1,312	4,140
Keizer UGB	215	754	706	384	690	1,100	3,635
Woodburn UGB	200	693	660	361	658	1,048	3,419
Dallas UGB	173	559	587	333	622	1,022	3,123
Lincoln City UGB	144	258	235	126	1,301	724	2,644
Polk Outside UGB Area	116	312	402	242	528	829	2,312
Independence UGB	116	372	397	226	422	698	2,114
Lebanon UGB	126	450	406	218	397	611	2,081
Lane Outside UGB Area	100	271	350	210	458	720	2,009
Florence UGB	112	305	299	166	635	603	2,008
Newport UGB	111	321	284	151	612	534	1,902
Monmouth UGB	94	311	320	180	331	544	1,685
Benton Outside UGB Area	78	211	272	163	357	560	1,563
Silverton UGB	77	268	251	137	252	395	1,303
Marion Outside UGB Area	63	170	219	132	287	451	1,259
Cottage Grove UGB	63	226	205	110	196	310	1,047
Junction City UGB	58	200	193	106	196	313	1,008
Yamhill Outside UGB Area	50	134	173	104	227	357	995
Stayton UGB	58	207	192	104	183	295	982
Creswell UGB	53	170	179	101	189	311	950
Philomath UGB	50	166	169	95	179	287	896
Sweet Home UGB	50	177	162	88	167	252	846
Millersburg UGB	47	152	159	90	165	274	840
Veneta UGB	37	122	124	70	132	211	660
Depoe Bay UGB	31	72	82	48	205	191	597
Aumsville UGB	32	106	109	61	113	186	576
Harrisburg UGB	31	102	105	59	109	180	555
Jefferson UGB	28	90	96	55	100	168	509
Mt. Angel UGB	27	95	91	50	89	145	470
Lafayette UGB	26	85	87	48	89	146	454
Hubbard UGB	27	93	87	47	87	137	451
Coburg UGB	26	87	85	47	86	139	444
Sheridan UGB	27	96	87	46	83	129	441
Linn Outside UGB Area	21	57	73	44	96	150	419
Lincoln Outside UGB Area	21	56	72	43	94	148	412

Willamette Valley region (Continued) UGB	Front-loaded annual target	20-Year Housing Need by Income Level					20-Year Total Needed Units
		0-30% AMI Units	30-60% AMI Units	60-80% AMI Units	80-120% AMI Units	>120% AMI Units	
Yachats UGB	19	26	25	14	191	97	352
Turner UGB	20	65	66	37	70	112	350
Donald UGB	19	60	64	36	67	112	338
Oakridge UGB	20	65	61	33	73	101	334
Waldport UGB	18	44	41	22	120	91	317
Toledo UGB	19	67	57	30	64	84	303
Mill City UGB	17	57	55	30	61	91	294
Gervais UGB	16	55	53	29	52	86	276
Willamina UGB	15	50	51	28	52	85	266
Carlton UGB	15	50	49	27	56	83	266
Dundee UGB	15	53	48	26	52	75	255
Adair Village UGB	13	41	43	25	46	76	230
Tangent UGB	14	48	45	24	43	68	228
Sublimity UGB	14	51	44	23	40	63	222
Aurora UGB	12	37	40	23	42	70	211
Detroit UGB	10	5	5	3	135	53	201
Brownsville UGB	11	38	37	21	38	61	196
Dayton UGB	11	42	37	20	34	55	188
Amity UGB	10	35	33	18	32	53	172
Dunes City UGB	9	19	18	10	76	48	170
Lyons UGB	10	32	30	17	37	51	166
Scio UGB	8	28	28	15	28	46	146
Lowell UGB	8	25	25	14	31	43	137
Siletz UGB	7	26	24	13	25	38	125
Halsey UGB	7	23	23	13	23	37	118
Falls City UGB	7	21	22	13	23	38	117
Monroe UGB	7	22	22	12	23	38	117
Yamhill UGB	7	23	21	12	20	32	109
St. Paul UGB	5	15	16	9	17	29	86
Scotts Mills UGB	3	9	10	5	11	17	52
Sodaville UGB	3	9	9	5	9	16	49
Idanha UGB	2	7	7	4	13	14	45
Westfir UGB	2	5	5	3	7	9	28
Gaston UGB	4	6	5	3	5	8	28
Gates UGB	2	5	4	2	7	7	25
Waterloo UGB	1	3	3	1	2	4	13