

DATE: April 5, 2021
TO: PCC Facilities Plan Project Team
FROM: Lorelei Juntunen, Matt Craigie, James Kim
SUBJECT: Alternative Land Use Study – Market Scan

This memorandum is one of two documents that constitute the **Alternative Land Use Study** for the PCC Facilities Plan project. In this document, we examine the estimated need for affordable housing among PCC students and in the communities that surround PCC campuses. The other document is a **Context Scan** that describes the suitability of each campus to accommodate affordable housing.

1. Purpose

As part of a larger facilities plan, Portland Community College (PCC) has asked ECONorthwest to study the potential for new development at PCC campuses, with a specific focus on affordable housing. PCC is interested in a better understanding of the need for affordable housing among PCC students and in the communities that surround PCC campuses, as well as which of its four campuses is most appropriate for accommodating affordable housing projects. This memorandum addresses these questions by analyzing the need for affordable housing in the communities surrounding PCC campuses and also the estimated need among PCC students. An examination of PCC campus capacity for new development can be found in the companion Context Scan document.

The Market Scan involved analyses of data specific to the communities that surround each PCC campus and student-level data provided by PCC. Data from the surrounding communities focuses on population and demographic characteristics that inform housing demand, such as population forecasts, household size, and the number of cost-burdened households. The purpose of this study is to illustrate the landscape of need for affordable housing within PCC “campus communities” and within its student population.

The Facilities Plan will consider multiple alternative land uses, including affordable housing, wraparound services, and other supportive uses like commercial space where appropriate. The Market Scan focuses primarily on housing for several reasons.

First, housing is likely to be the highest and best use of developable properties at PCC campuses. PCC is not pursuing housing for revenue generation, but would partner with affordable housing developers. For these developers, retail tenants generate much less income (on a per square foot basis) than residential tenants do. Although mixed-use developments that co-locate housing and retail uses are desirable for some residents, retail competes for space with the need for housing that is affordable to lower-income households.

Second, retail space is harder to fill because it requires commercial tenants who can sign up for long-term leases. Vacancies in retail space can reduce the appeal of a place. Moreover, pandemic-induced economic shifts observed during 2020 have resulted in sharp increases in retail vacancies and a drop in retail rents. Other ground floor uses, like resident support services or partner offices, may be more viable as part of affordable housing at PCC.

The need for affordable housing is dire in the communities that PCC operate in and among PCC students. Restoring housing stability will be critical to proving an atmosphere that PCC students

can thrive in. Therefore, the Market Scan focuses on understanding the need for affordable housing among PCC students and the communities that surround PCC campuses.

2. Background

The Market Scan for alternative land uses on PCC campuses seeks to clarify the level of need for affordable housing from both community members and PCC students. It answers one of the key questions for the Alternative Land Use Study:

What is the demand for new development in the communities that surround each of the four PCC campuses? And in particular, what is the nature of demand for affordable housing in these communities and with students that attend each campus?

Housing affordability has been and continues to be a critical issue nationwide. Housing prices and apartment rents are increasing faster than household incomes, and a growing share of the population is becoming overburdened with housing costs, particularly among households with low- or middle-incomes. An influx of higher-income households to certain cities and regions, rising construction costs, other constraints on new housing supply, and limited support from federal and state governments have resulted in a shortage of housing units.¹

In Oregon, new housing production has not kept up with the state's recent strong economic and population growth. Between 2012 and 2019, 95 housing units were produced for every 100 new households in Oregon. In comparison, 106 housing units were produced for every 100 new households in the U.S.² Housing production needs to exceed household formation to reduce the existing shortage of housing.

Addressing the need for affordable housing is critical to improving life outcomes. Because housing costs are major expenses that determine households' monthly budgets, households that cannot afford high rents often have little choice but to move to neighborhoods with lower rents that may be farther away from job centers and amenities and have higher rates of poverty. Economic research has shown intergenerational poverty can be reduced by enabling families to move to lower-poverty neighborhoods.³ Moreover, since overpriced housing is one of the drivers of rising homelessness, increased housing production is a key component of the solution to homelessness.⁴

The solution to housing affordability relies on a concerted effort from multiple market and non-market actors. State and federal agencies can provide housing vouchers or incentivize the

¹ Joint Center for Housing Studies of Harvard University. America's Rental Housing 2020. January 2020.

² Based on U.S. Census American Community Survey (ACS) 1-Year Estimates for 2012 and 2019, Tables DP02 and DP04.

³ Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment. *American Economic Review* 106, no. 4 (2016): 855-902.

⁴ ECONorthwest. Homelessness in Oregon: A Review of Trends, Causes, and Policy Options. March 2019.

development of low-income housing. Local governments can make more land available for the development of affordable housing and higher density housing by changing zoning laws and creating development incentives. The expertise of real estate developers, general contractors, and architectural and engineering firms is also needed. Finally, private businesses, government entities, and local institutions with underutilized land in highly desirable places can make them available for much needed housing development.

2.1 What do we mean by ‘affordable housing’?

Definitions for “affordable housing” can vary greatly and are often tied to Median Family Income (MFI). This study defines affordability as the relationship between market housing price and household income such that the monthly housing costs (including utilities and other costs) for a single-family dwelling or an apartment unit are no more than 30% of gross household income. Transportation costs are not included. This is an imperfect, but frequently used definition of housing affordability. Housing affordability is, therefore, a function of income and housing costs for each individual household, which can vary substantially given the unique circumstances of a household and dwelling unit.

MFI is a standard measure of income that varies depending by geography and family size and is derived from U.S. Census data. The Department of Housing and Urban Development (HUD) establishes MFI thresholds that are dependent on the size of the household for programs it administers.

Exhibit 1 provides an overview of the relationship between current income ranges and affordable housing costs for the Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA), which is the geographic unit the HUD uses for its programs. The estimates are based on a 4-person household. The MFI can be adjusted for households of other sizes.

Exhibit 1. Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA) Median Family Income and Affordability Ranges, 2020

Source: ECONorthwest; HUD FY2020 Income Limits

	Income Range	Affordable monthly housing costs
2020 MFI, 4-person household	\$92,100	\$2,303
High (120% or more of MFI)	>\$110,520	>\$2,763
Moderate (80%-120% of MFI)	\$73,680 - \$110,520	\$1,842 - \$2,763
Low (50-80% of MFI)	\$46,050 - \$73,680	\$1,151 - \$1,842
Very Low (30%-50% of MFI)	\$27,630 - \$46,050	\$691 - \$1,151
Extremely Low (Less than 30% of MFI)	<\$27,630	<\$691

In the U.S. and in Oregon, at least 45% of renters are cost-burdened, or spending more than 30% of their gross income on housing costs.⁵ In the Portland-Vancouver-Hillsboro MSA, 4 out of 5 households earning less than 50% of MFI were cost-burdened. The cost-burden rate was 53% among households earning 50% to 80% of MFI and 19% among households earning 80% to 100% of MFI. In 2018, there were about 74,000 renter households in the MSA earning less than 30% of MFI, but only 20,000 rental units were affordable to them.⁶

Households that pay more than 30% of gross annual income on housing costs are commonly referred to as “cost-burdened” or “moderately cost-burdened.” Households that pay more than half of their gross income on housing costs are “severely cost-burdened.”

Is this Market Scan Comparable to Statewide Housing Planning Efforts?

Oregon’s Statewide Land Use Planning Goal 10 requires each city to periodically develop a Housing Needs Analysis (HNA), which must tie twenty years of projected household growth to units of varying densities, and then determine whether there is adequate land inside the city’s urban growth boundary to accommodate those units. Goal 10 directs cities to plan for “...housing that meets the housing needs of households of all income levels.” Oregon’s statewide land use planning system requires one of the most comprehensive approaches to planning for housing in the country.

In line with the aims of Goal 10, the Market Scan includes **projected need** to account for household growth over the next 20 years and across income levels. However, its estimates of housing need go beyond projected need by estimating historical **underproduction** of housing units and **unhoused need** among individuals experiencing homelessness. However, given the methods used and the geographies analyzed, this study is not directly comparable to HNAs produced for cities within the PCC district.

3. Approach

This Market Scan explores the demand for affordable housing at three levels. First, we analyzed housing need at the **PCC District level**. Although PCC does not have the ability or responsibility to plan for housing needs across its district, the housing demand at the regional level serves as a context for PCC’s future investments. A regional perspective is especially important because PCC’s students come from many places and outside the neighborhoods located near PCC’s campuses and even outside the PCC District.

Next, we analyzed housing need at each of the **four campuses**: Cascade, Rock Creek, Southeast, and Sylvania. The result of this analysis shows the housing need among households that live near the campuses. The need is disaggregated by household income.

For the district analysis and campus community analysis, three components of housing need are identified. **Projected need** is the need for housing over the next twenty years and includes all types of housing for all levels of household income. **Underproduction** is the existing need for housing based on the current shortage of housing among those who are housed. There is a

⁵ Based on 2019 ACS 1-year estimates, Table B25070.

⁶ National Low Income Housing Coalition. The Gap: A Shortage of Affordable Homes. March 2020.

shortage of housing when there are insufficient number of units – including vacant units and non-primary residences – that are needed for a healthy circulation of households in a regional market. Underproduction has a greater effect on lower-income households, since they often lack sufficient resources to compete for housing with higher-income households. Its observable outcomes are overcrowding and cost-burdening among those who are housed. **Unhoused need** is the need for housing based on the number of people experiencing homelessness. Underproduction and unhoused need make up currently existing housing need. All three components of housing need are presented across household income categories. Please refer to the Appendix of this memorandum for more detail on the methodology.

Finally, we estimated the housing need among **PCC students** based on data from PCC and national surveys and studies related to student housing instability. Although PCC’s data does not specifically measure housing instability, information on the Federal Pell Grant program eligibility and student demographics allowed us to estimate the number of vulnerable students who would benefit from an affordable housing program. Also, findings from a national survey of community college students are used to generate low and high estimates of housing need among PCC students.

4. The Need for Affordable Housing in Relation to PCC Campuses

There is a current shortage of about 40,000 dwelling units in the PCC District. There also are about 9,000 individuals in the district who recently experienced homelessness. Based on population projections, another 147,000 new dwelling units will need to be added to the supply of housing in the PCC District over the next 20 years. In total, almost 196,000 new units are needed to meet current and future housing demand in the PCC District. 29% of these units are needed for households earning less than 50% of MFI, which was \$46,050 in 2020.

In the vicinity of PCC’s four campuses 6,800 dwelling units are needed today to address underproduction and homelessness. Of these, 55% (3,800 units) need to be affordable to households earning less than 50% of MFI. 17,900 new units are also needed to accommodate future growth in population around the campuses.⁷

Near the Southeast Campus, where the residential population is the greatest, 3,000 new units are needed today to address underproduction and homelessness, and 6,300 new units are needed to accommodate future growth in population. 31% of the 9,300 units are needed for households earning less than 50% of MFI. Among the four campuses, the Southeast Campus faces relatively greater underproduction and unhoused need.

⁷ The vicinity of each campus is defined by census tracts that fall within a 5-minute driving distance. More detailed explanation is provided in the Appendix.

4.1 Region: PCC District

Across the PCC District, 49,100 units are needed today to meet currently existing need. Most of the current need is related to underproduction, and the remainder are units needed for persons experiencing homelessness, noted as ‘unhoused need’ below.

Of the nearly 196,000 housing units needed in the PCC District, about 13% (24,800 units) are needed within a five-minute driving distance from one of PCC’s four campuses.

Exhibit 2. Housing Units Needed by Location

Source: ECONorthwest; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count

Location	Projected Need	Underproduction	Unhoused Need	Total
PCC District	146,747	40,070	9,075	195,893
All Campuses	17,898	5,858	978	24,734
Cascade Campus	4,423	1,630	317	6,371
Rock Creek Campus	3,025	564	18	3,606
Southeast Campus	6,255	2,514	494	9,263
Sylvania Campus	4,195	1,150	149	5,494
All Campuses as Share of PCC District	12%	15%	11%	13%

About half of the projected need in the PCC District should be affordable to households earning less than 120% of the MFI. In contrast, about half of units for underproduction and nearly all of units for unhoused need should be affordable to households earning less than 50% of the MFI, which was \$46,050 in 2020. Across the district, a total of 28,000 units are needed to address currently existing need among households that earn less than 50% of MFI as identified by underproduction and unhoused need. **In places near the four PCC campuses, the current existing need among households that earn less than 50% of MFI is 3,755 units.**

Exhibit 3. Housing Units Needed by Affordability Category, PCC District

Source: ECONorthwest; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count; HUD, FY 2018 Income Limits; OHCS, EHA and SHAP data

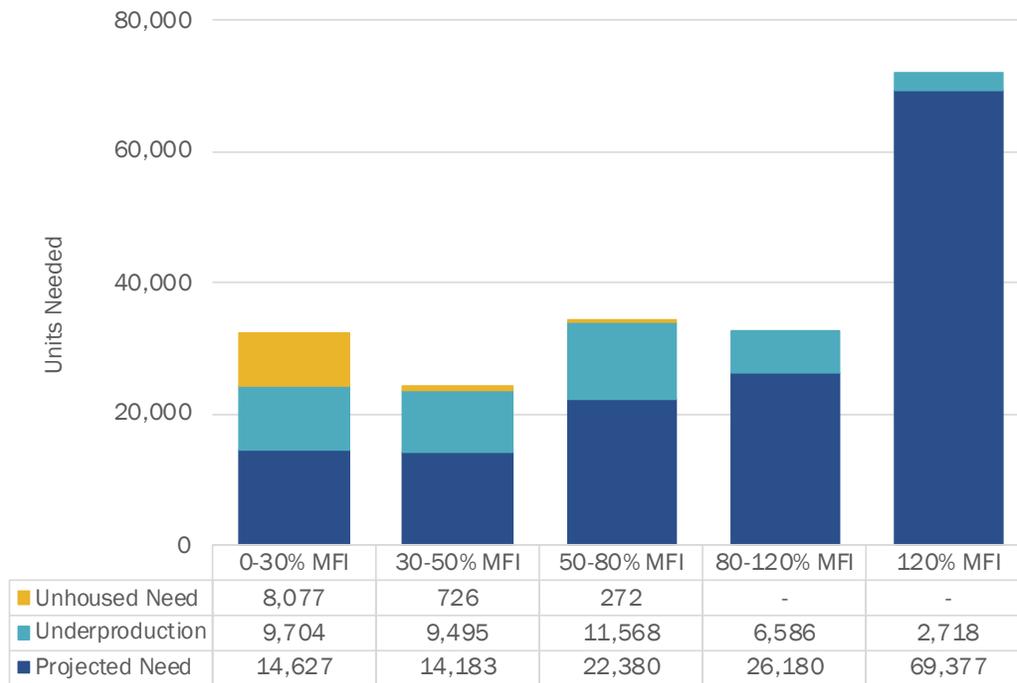
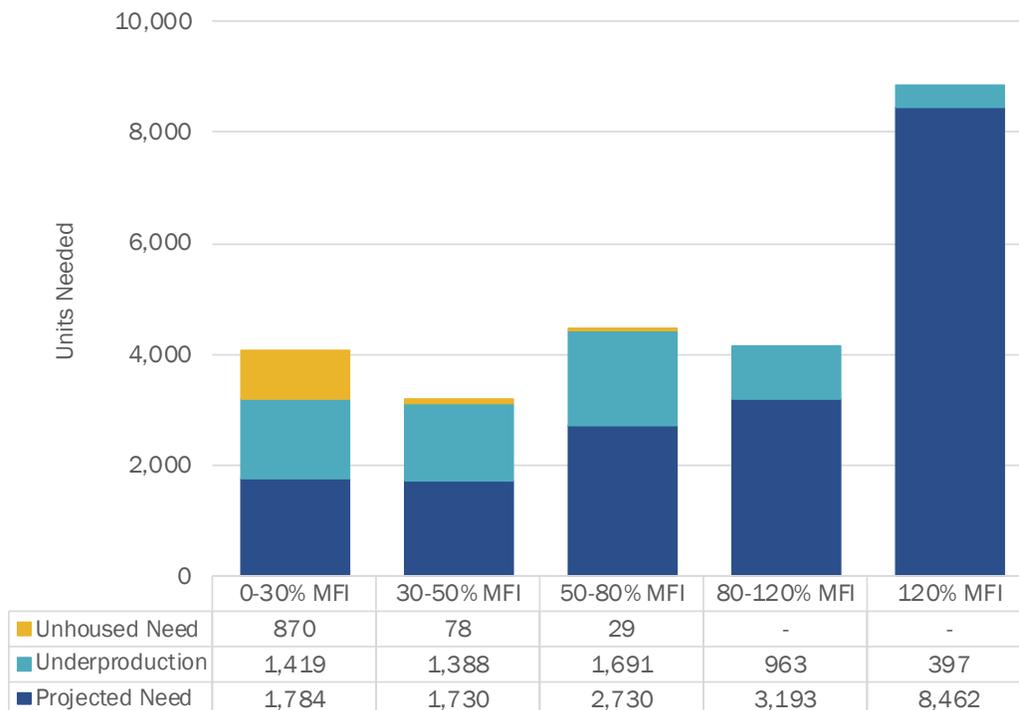


Exhibit 4. Housing Units Needed by Affordability Category, All PCC Campuses

Source: ECONorthwest; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count; HUD, FY 2018 Income Limits; OHCS, EHA and SHAP data



4.2 PCC Campuses

Cascade Campus

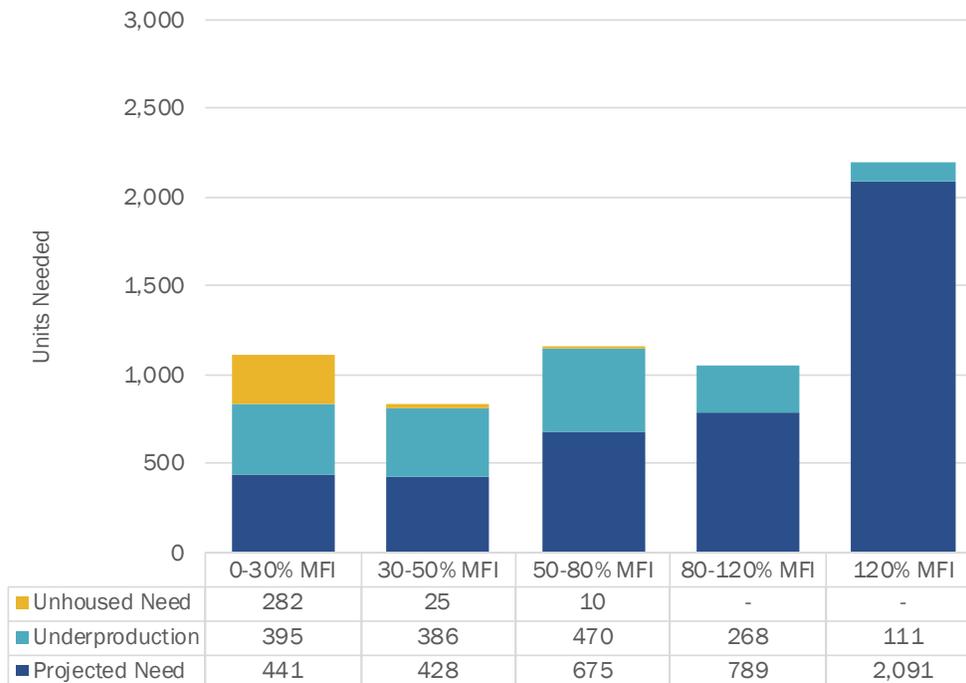
There is a need for 6,371 housing units within a five-minute driving distance from Cascade Campus. About 2,000 (or 31%) of the need for affordable units around the campus is concentrated among households earning less than 50% of MFI. **To address currently existing need (underproduction and unhoused need) among households that earn less than 50% of MFI, 1,100 new, income-restricted units will need to be built.**

To ensure that housing targeted at households earning certain incomes are actually occupied by the targeted population, they must be regulated and “income-restricted.” Periodic review of household incomes is necessary to make sure the units are available to those who qualify for them.

Compared to other campuses, housing need around Cascade Campus is slightly skewed toward unhoused need. Unhoused need across the campuses makes up about 4% of the total housing need. Near Cascade Campus, unhoused need makes up about 5% of the total housing need.

Exhibit 5. Housing Units Needed by Affordability Category, Cascade Campus

Source: ECONorthwest; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count; HUD, FY 2018 Income Limits; OHCS, EHA and SHAP data



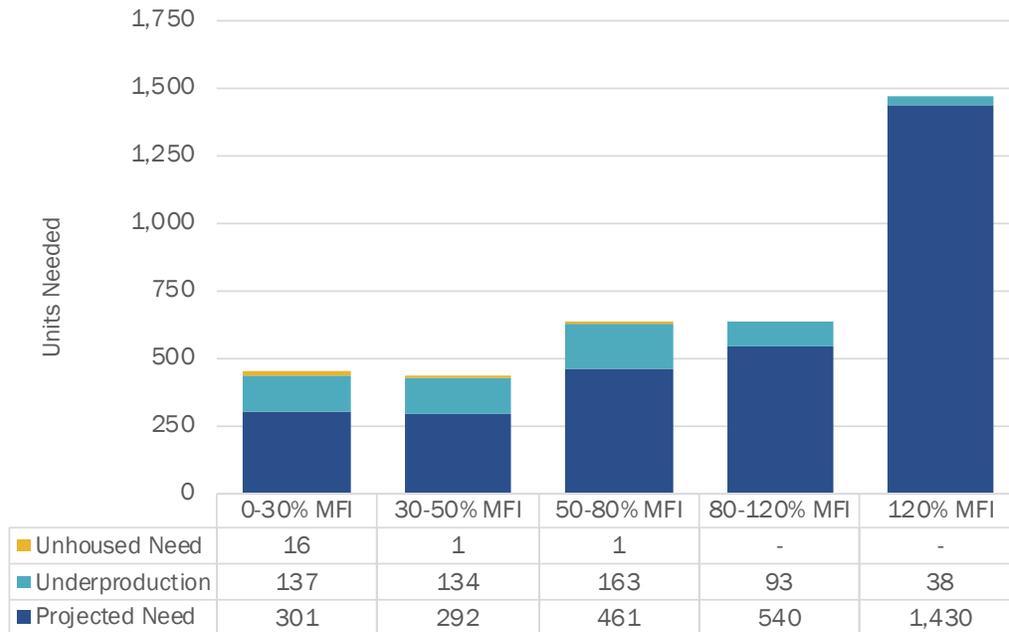
Rock Creek Campus

There is a need for 3,606 housing units within a five-minute driving distance from Rock Creek Campus. 24% (880 units) of the need for affordable units around the campus is concentrated among households earning less than 50% of MFI. **To address currently existing need (underproduction and unhoused need) among households that earn less than 50% of MFI, 300 new, income-restricted units will need to be built.**

Compared to other campuses, housing need around Rock Creek Campus is more related to the projected need, which is based on population growth. Projected need across the campuses makes up 72% of the total housing need. Near Rock Creek Campus, projected need makes up 84% of the total housing need. Moreover, unhoused need makes up less than 1% of the total housing need near Rock Creek Campus.

Exhibit 6. Housing Units Needed by Affordability Category, Rock Creek Campus

Source: ECONorthwest; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count; HUD, FY 2018 Income Limits; OHCS, EHA and SHAP data



Southeast Campus

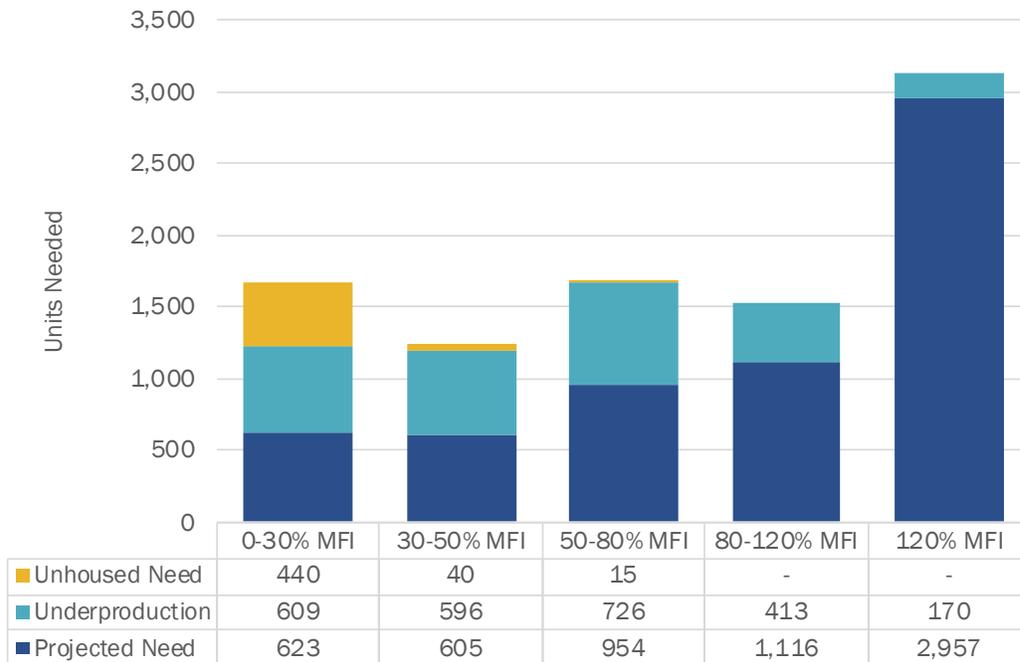
Of PCC’s four campuses, the Southeast Campus has the largest quantity of needed housing units within a five-minute drive (9,263 units in total, or 37% of all campuses). Nearly one-third (31%) of these needed units should be affordable to households earning less than 50% of MFI.

To address currently existing need (underproduction and unhoused need) among households that earn less than 50% of MFI, about 1,700 new, income-restricted units will need to be built.

Compared to other campuses, housing need around Southeast Campus is skewed toward underproduction and unhoused need. Underproduction across the campuses makes up 24% of the total housing need, whereas it makes up 27% of the need around Southeast Campus. Unhoused need across the campuses makes up about 4% of the total housing need, whereas it makes up about 5% of the need around Southeast Campus.

Exhibit 7. Housing Units Needed by Affordability Category, Southeast Campus

Source: ECONorthwest; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count; HUD, FY 2018 Income Limits; OHCS, EHA and SHAP data



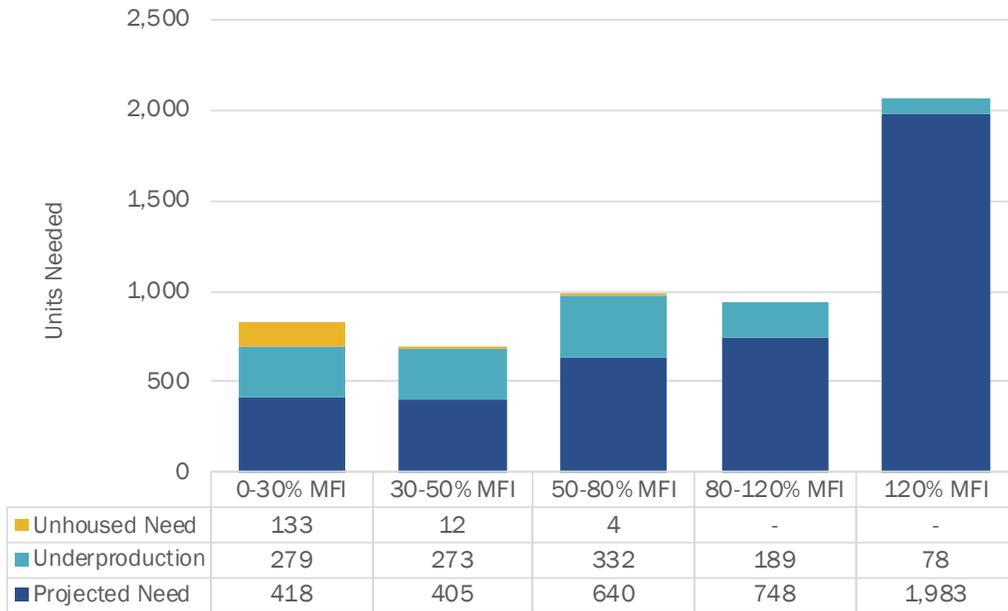
Sylvania Campus

There is a need for 5,494 housing units within a five-minute driving distance from Sylvania Campus. Twenty-eight percent (1500 units) of the need for affordable units around the campus is concentrated among households earning less than 50% of MFI. **To address currently existing need (underproduction and unhoused need) among households that earn less than 50% of MFI, about 700 new, income-restricted units will need to be built.**

Compared to other campuses, housing need around Sylvania Campus is slightly skewed toward projected need. Projected need across the campuses makes up 72% of the total housing need. Near Sylvania Campus, projected need makes up 76% of the total housing need.

Exhibit 8. Housing Units Needed by Affordability Category, Sylvania Campus

Source: ECONorthwest; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count; HUD, FY 2018 Income Limits; OHCS, EHA and SHAP data



5. The Estimated Need for Affordable Housing Among PCC Students

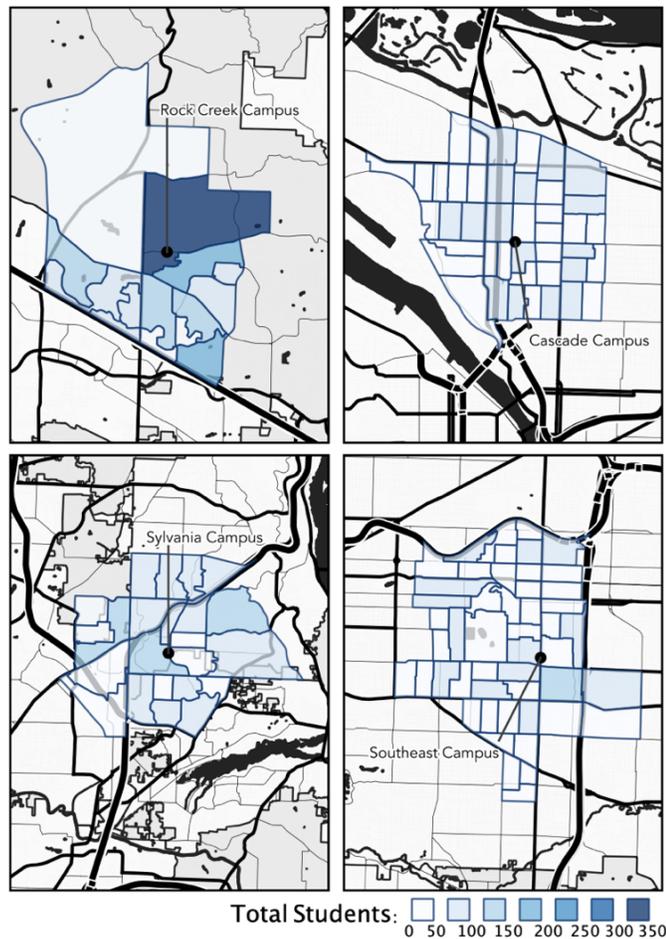
PCC students live in many places across the PCC District. Students also come from outside the PCC District. Only 7,000 students live within a 5-minute driving distance from one of PCC’s four campuses. Because many students live in places far from PCC campuses, and because PCC cannot serve students’ housing needs outside its properties, PCC is interested in focusing efforts on students’ need for affordable housing near or on its campuses.

About 13.2% of PCC students live near one of the four campuses (see Exhibit 9): 4.0% near Southeast Campus, 3.6% near Cascade Campus, 3.0% near Sylvania Campus, and 2.6% near Rock Creek Campus. Among those who live near a campus, about half attend their nearest campus.

One way to estimate housing need among students is by looking at household income of students, a proxy for which is Federal Pell Grant eligibility or receipt. About 32% of credit students at PCC receive Federal Pell Grants.⁸ Although Pell Grant participation alone does not indicate housing insecurity, it is an indicator of income and other financial resources that would be available to cover housing costs. It is also important for addressing racial inequality since 45% of Pell Grant-eligible students identify as BIPOC (Black, Indigenous, People of Color)⁹. In comparison, about 35% of students in the overall population identify as BIPOC.

Exhibit 9. Distribution of PCC Student Population Around Campuses, Based on Zip+4 Data and Census Blocks

Source: ECONorthwest; Portland Community College
 Note: Students are aggregated into census block groups in which the centroid of a student’s Zip+4 code is located.



⁸ “Demographics.” Portland Community College. Accessed February 1, 2021. <https://www.pcc.edu/about/quick-facts/demographics.html>.

⁹ Based on PCC 2019-2020 student data.

Housing need can also be determined by estimating overcrowding and homelessness among students. A national survey of 33,000 students in 70 community colleges in 24 states showed 17% of students were doubled-up – living in overcrowded conditions – and 14% of students experienced homelessness in the 12 months preceding the survey. About half (51%) of the students were identified as housing insecure, meaning they could not pay their full rent or mortgage amount, doubled-up, or unhoused. On the west coast, 15% of students experienced homelessness and 59% of students were housing insecure. According to a student news article in 2019, 14% of PCC students were homeless and 40% experienced housing insecurity.¹⁰

A range for housing need can be calculated based on the information above. At the low end, 31% of PCC students can be estimated to have experienced overcrowding (17%) or homelessness (14%). Also, 32% of students were Pell Grant recipients. At the high end, 59% of PCC students may be housing insecure. Based on this range, **2,140 to 4,080 students are estimated to live near a PCC campus and be in need of affordable housing.**

Exhibit 10. Estimated Housing Need Among PCC Students by PCC Campus Neighborhood

Source: ECONorthwest analysis of student-level data provided by PCC; Goldrick-Rab, Richardston, and Hernandez (2017). See appendix for methodology.

Location	Overcrowding	Homelessness	Overcrowding + Homelessness	Housing Insecurity
PCC District	7,400	6,100	13,600	25,800
All Campuses	1,170	970	2,140	4,080
Cascade Campus	320	270	590	1,120
Rock Creek Campus	240	190	430	820
Southeast Campus	350	290	640	1,220
Sylvania Campus	270	220	480	920

In comparison, about 40,300 students attend one of the four campuses. Thus, **one in ten students who attend one of the four campuses live near a campus and face housing insecurity.** However, housing need among students varies across campuses. About 20% of students who attend Southeast Campus live near it and face housing insecurity. The ratio of housing need to student population is 13% for Cascade Campus and 7% each for Rock Creek Campus and Sylvania Campus.

¹⁰ Hill, James. "School is back in session and there's plenty to talk about for the 2019-2020 year." Portland Community College. September 2019. <https://www.pcc.edu/news/2019/09/school-is-back/>.

6. Summary of Findings and Implications

In this section, we summarize our findings and present our observations about those findings. Key findings from our research include:

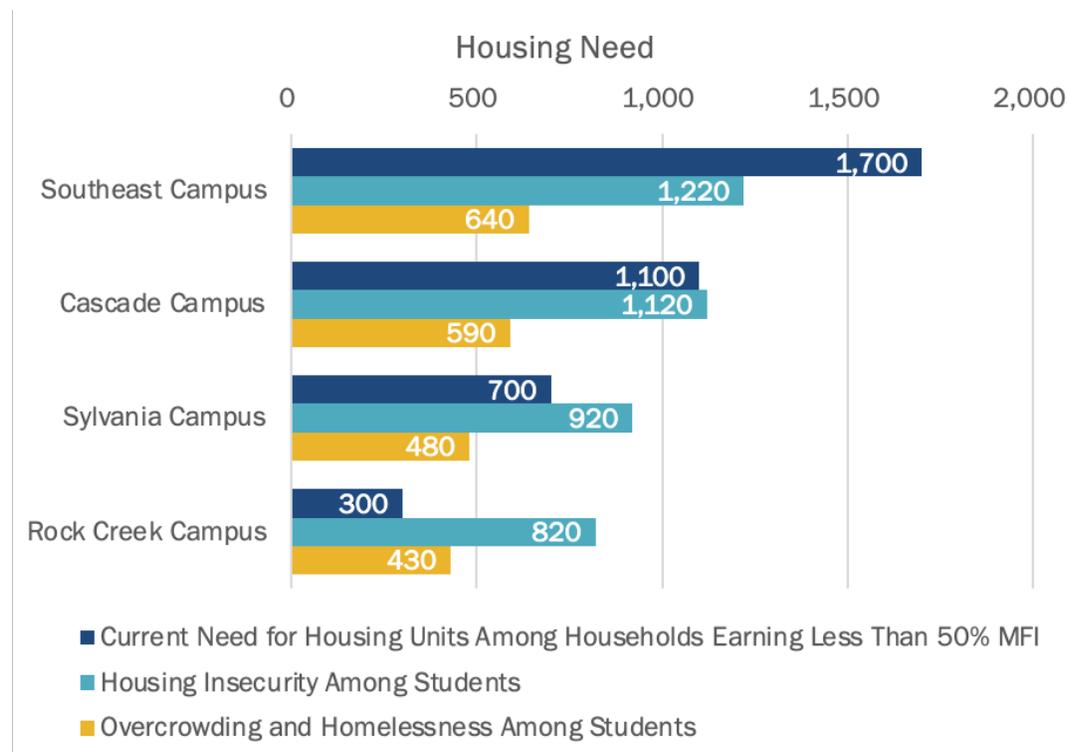
- **Housing Need in the PCC District:** There are 40,000 underproduced housing units and 9,000 individuals experiencing homelessness. New, income-restricted units are needed to reduce housing cost-burden among lower-income households.
- **Student Need in the PCC District:** An estimated 13,600 to 25,800 PCC students who live in the PCC District could be in need of housing support. Overcrowding, homelessness, and unaffordable rents are common among community college students.
- **Campus level findings**
 - **Southeast Campus:** Housing need is the greatest around the Southeast Campus for two reasons. The residential population is the greatest near the Southeast Campus. More importantly, housing need related to underproduction and homelessness is greater near the Southeast Campus. To address currently existing need (underproduction and unhoused need) among households that earn less than 50% of MFI, about 1,700 new, income-restricted units will need to be built. An estimated 640 to 1,220 PCC students who live near Southeast Campus are in need of affordable housing. They make up 10% to 20% of the student population in Southeast Campus.
 - **Cascade Campus:** Similarly, housing need near Cascade Campus is skewed toward unhoused need. 1,100 new, income-restricted units are needed to address currently existing need among households that earn less than 50% of MFI. An estimated 590 to 1,120 PCC students who live near Cascade Campus are in need of affordable housing. They make up 7% to 13% of the student population in Cascade Campus.
 - **Sylvania Campus:** 700 new, income-restricted units are needed near Sylvania Campus. An estimated 480 to 920 PCC students who live near Sylvania Campus are in need of affordable housing. They make up 4% to 7% of the student population in Sylvania Campus.
 - **Rock Creek Campus:** Housing need near Rock Creek Campus is more influenced by future population growth than homelessness, compared to the other three campuses. 300 new, income-restricted units are needed. In comparison, an estimated 430 to 820 PCC students who live near Rock Creek Campus are in need of affordable housing. They make up 4% to 7% of the student population in Rock Creek Campus.

Exhibit 11. Comparison of Housing Need Estimates

Source: ECONorthwest analysis of student-level data provided by PCC; PSU, 2020-2070 Coordinated Population Forecasts; U.S. Census Bureau, 2014-2018 ACS 5-year estimates; HUD, 2019 PIT count; PCC; Goldrick-Rab, Richardston, and Hernandez (2017). See appendix for methodology.

Location	Currently Existing Need for Housing Units Among Households Earning Less Than 50% of MFI	Overcrowding + Homelessness Among Students	Housing Insecurity Among Students
PCC District	28,000 units	13,600 students	25,800 students
All Campuses	3,800 units	2,140 students	4,080 students
Cascade Campus	1,100 units	590 students	1,120 students
Rock Creek Campus	300 units	430 students	820 students
Southeast Campus	1,700 units	640 students	1,220 students
Sylvania Campus	700 units	480 students	920 students

Exhibit 12. Summary of Estimated Housing Needs Near Each Campus



Appendix

Methods in Detail

The Market Scan analyzes data at three levels to establish the landscape of demand for affordable housing. These levels are:

1. A **regional analysis** provides an overview of the demand for affordable housing across PCC's taxing district.
2. A **campus community analysis** assesses demand for affordable housing in places near PCC's four campuses.
3. A **student-level analysis** estimates the demand for affordable housing among PCC students.

Because much of the data used in the analysis comes from U.S. Census Bureau, the selected geographies are based on the geographies used for the Census Bureau. Namely, for the regional analysis, census tracts that are completely or partially within PCC's taxing district boundaries were selected. This boundary encompasses all of Washington County, a segment of Multnomah County, and small portions of Clackamas County, Columbia County, and Yamhill County.

For the campus community analysis, ECONorthwest analyzed driving distances from each of the four campuses and selected census tracts that are reachable within 5 minutes of driving time, or about 2 miles. However, if more than 90% of a census tract is outside the driving distance, it was removed from the campus community analysis.

PCC provided anonymized data that included ZIP+4 codes for students in academic year 2019-2020. The 9-digit ZIP+4 Code is comprised of five digits that represent destination post office or delivery area and four digits that indicate specific delivery route. Census blocks that intersected with the center point of the delivery route were assumed to be the dwelling location of students. Census blocks aggregate to census tracts.

For the district analysis and campus community analysis, there are three components of housing need identified.

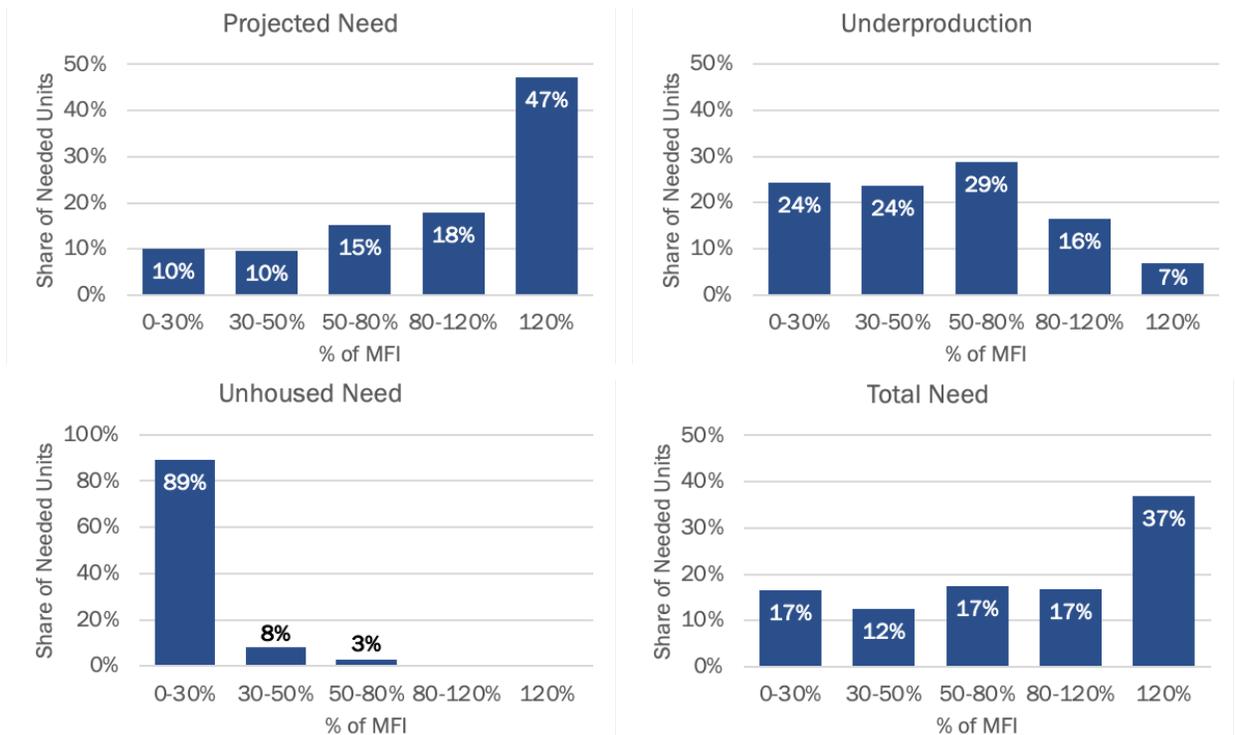
1. **Projected need** is the demand for housing over the next twenty years. This estimate is derived from population forecasts provided by Portland State University Population Research Center, an average household size of 2.5 people, and an average of 1.14 dwelling units per household. Projected need includes all types of housing for all levels of household income.
2. **Underproduction** is the existing demand for housing based on current shortage of housing among those who are housed. Past underproduction of housing units has resulted in a very tight housing market where there are not enough vacant units and non-primary residences that allow for a healthy circulation of households in a regional housing market. Underproduction affects lower-income households more because they lack sufficient resources to compete for housing with higher-income households.

3. **Unhoused need** is the demand for housing based on the number of people experiencing homelessness. Cities and counties conduct biannual snapshots of individuals and families who are unhoused on a given night. This data called Point-in-Time (PIT) counts are reported to HUD. Because these numbers are known to undercount the actual number of people experiencing homelessness, they are increased by a factor (60%) to produce more realistic estimates.¹¹

Housing need is then distributed across various income groups to depict a clearer picture of housing need across income groups. The distribution of projected need is assumed to match current distribution of household incomes in Multnomah County, Washington County, and Clackamas County. The distribution of underproduction is based on the income distribution among cost-burdened households in the three counties. The income distribution among unhoused populations is based on Oregon Housing and Community Services (OHCS) administrative data from Community Action Agencies that receive state Emergency Housing Assistance (EHA) and State Housing Assistance Program (SHAP) funds.¹² Exhibit 13 illustrates the distribution of housing need by for each of the three components of housing need and for the total housing need.

Exhibit 13. Distribution of Housing Need by Component of Housing Need

Source: ECONorthwest; U.S. Census 2018; OHCS



¹¹ The 60% factor is based on a 2016 research by Wilder Research titled *Homelessness in Minnesota: Findings from the 2015 Minnesota Homeless Study*.

¹² These numbers are based on the first 3 quarters of fiscal year 2020 only.

Housing need among students is determined by estimating the number of students who are eligible for the Federal Pell Grant program. Although Pell Grant eligibility alone does not indicate housing insecurity, it is an indicator of income and other financial resources that would be available for housing costs. Housing need is also determined by estimating overcrowding and homelessness among students. A national survey of 33,000 students in 70 community colleges in 24 states showed 17% of students were doubled-up and 14% of students experienced homelessness in the 12 months preceding the survey.¹³ About half (51%) of the students were identified as housing insecure, meaning they could not pay their full rent or mortgage amount, doubled-up, or unhoused. In the West region, 15% of students experienced homelessness and 59% of students were housing insecure.

The findings from the survey are likely applicable to PCC. Housing shortage in the Portland metropolitan area is not as dire as it is in other major cities on the west coast but is certainly worse than many other cities in rest of the nation. Slightly less than half (47%) of the data in the survey represented students attending community colleges in the West region. 28% of the sampled students attended community colleges with more than 20,000 students, 44% were white, 56% were under 25 years old, and 42% received the Pell Grant. In comparison, PCC has more than 40,000 credit students, 54% of its students identify as white, 56% of credit students were under 25 years old, and 32% of credit students received the Pell Grant.¹⁴

Data Sources

The following data sources were used in this analysis.

- **The American Community Survey (ACS)** is the most comprehensive publicly available data source for demographic information in the US and is administered to about three million households on a rolling basis each year. The data are released annually as one-year and five-year estimates on a wide range of demographic, socioeconomic, and household characteristics.

In this memorandum, we use ACS five-year estimates, which are pooled samples across five-year ranges. The 2014-2018 estimates used in this analysis include households that were surveyed in years 2014 to 2018. The larger sample size for the five-year estimates enables us to look at smaller geographic areas with more confidence that the sample data represents the population. However, five-year estimates have the disadvantage of being an average across five years, meaning they are not representative of a single year in the sample range, but rather, an average of all five years within the sample range.

- **Student data from PCC.** PCC provided ECONorthwest with student and course-level data for the 2005-06 through 2019-20 academic years. These data included all credit, non-

¹³ Goldrick-Rab, Sara, Jed Richardson, and Anthony Hernandez. *Hungry and Homeless in College: Results from a National Study of Basic Needs Insecurity in Higher Education*. March 2017. <https://hope4college.com/wp-content/uploads/2018/09/Hungry-and-Homeless-in-College-Report.pdf>.

¹⁴ "Demographics." Portland Community College. Accessed February 1, 2021. <https://www.pcc.edu/about/quick-facts/demographics.html>.

credit, and continuing education courses students had taken and also included student demographic characteristics, such as race, ethnicity, gender, birth date, Pell Grant eligibility, and the zip code of the student's residence.

The number of students living within a five-minute drive of each PCC campus was estimated using student zip codes and zip+4 codes provided in the student data. About a third of student observations were missing zip+4 data in the 2019-20 academic year. These students were allocated to existing zip+4 codes based on their zip code and the distribution of other students across zip+4 codes. Overall, ECONorthwest allocated over 95 percent of PCC's total enrolled students in 2019-20. After allocation, zip+4 codes were organized into census block groups to estimate the distribution of students living near PCC campuses. Note that students with out-of-state zip codes, students who took only community education courses, and students with invalid or missing zip codes (less than 1 percent of observations) were excluded from ECONorthwest calculations.

- **Portland State University Population Research Center** is directed by the Oregon State Legislature to regularly generate an account of current population trends and population forecasts. The data is generated for each county in Oregon. The process includes developing demographic models using historic and recent data, gathering information about existing and planned housing, and making assumptions about future housing and population change.
- **Point-in-Time (PIT) count** is a snapshot of individuals experiencing homelessness on a single night in a community. It records the number and characteristics (e.g., race, age, veteran status) of people who live in emergency shelters, transitional housing, rapid re-housing, Safe Havens, or PSH; as well as recording those who are unsheltered. In addition, the Housing Inventory Count (HIC) estimates the number of beds available. HUD requires that communities and Continuums of Care (CoC) perform the PIT count during the last ten days of January on an annual basis for sheltered people and on a biennial basis for unsheltered people. Though the PIT count is not a comprehensive survey, it serves as a measure of homelessness at a given point of time and is used for policy and funding decisions.
- **OHCS Emergency Housing Assistance (EHA) and State Homeless Assistance Program (SHAP) administrative data** is based on data collected by Community Action Agencies that receive the state funds. EHA program provides flexible, short-term funding to prevent and reduce homelessness. SHAP provides operational support for emergency shelters and related services for individuals and families experiencing homelessness. The funds can be used for street outreach, shelters, and data collection. OHCS receives quarterly reports from Community Action Agencies on the clients served through these programs.