The Oregon
Poverty Measure

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EXECUTIVE SUMMARY

In the context of an economy that has experienced both historic highs and lows during the last fifteen years, including Depression-level unemployment related to COVID-19 shutdowns, there is great interest in understanding the levels and trends of poverty in Oregon.

Interpretations of progress against poverty and how social policies affect poverty hinge on how poverty is measured. Existing poverty measures have well-known limitations that fail to reveal the true nature of poverty. The Oregon Poverty Measure Project, inspired by Supplemental Poverty Measure methods developed at the federal level, aims to produce the most valid measure of poverty for the state. In this report, we use 2014-18 American Community Survey data with a number of adjustments to economic resources and thresholds.[1] We find that:

- Overall, 13% Oregonians were in poverty using the Oregon Poverty Measure (ORPM), slightly lower than 14% based on the federal Official Poverty Rate (OPM).[2]
- During this period, ORPM poverty declined overall, from 15% to 13%.
- The overall child ORPM poverty rate was substantially lower than the Official Poverty Measure for children (13% vs. 19%) and the older adult poverty rate considerably higher (12% vs. 8%).
- Black Oregonians and Native Americans experienced disproportionately high rates of poverty (17% and 18%, respectively) compared to Whites (12%), although disparities were less under the ORPM than under the Official measure.

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[1] Data for 2019 and 2020 are not yet available for key data sources. As a result, ORPM estimates are subject to a considerable time lag. However, we expect to use 2014-18 data to forecast changes in poverty resulting from changing economic conditions, such as those due to COVID-19.

[2] Both the ORPM rate and federal OPM rate were calculated using our analytic sample and may not match the Official Poverty rate reported by the Census Bureau.

- Geographically, poverty in Oregon is higher than the state average in Southern Oregon and pockets of metropolitan areas.
- The share of Oregonians in deep poverty (4%) remained mostly unchanged, suggesting pockets of persistent poverty in Oregon.

For the first time in the state, we document the influence of programs that comprise the federal and state social safety net. We find that, in the absence of Social Security, the Earned Income Tax Credit, and the Supplemental Nutrition Assistance Program, a considerably higher share of Oregonians would be in poverty.

We anticipate that the Oregon Poverty Measure Project will produce policy-relevant information and contribute to ongoing discussions about the hardships experienced by Oregonians. Next steps in the Oregon Poverty Measure Project include the production of a series of policy briefs focused on key findings, poverty forecasts, and analysis of policy impacts.

ABBREVIATIONS

ACS	American Community Survey
ACTC	Additional Child Tax Credit
CTC	Child Tax Credit
CDCTC	Child and Dependent Care Tax Credit
CPM	California Poverty Measure
CPS-ASEC	Current Population Survey Annual Social and Economic Supplement
EITC	Earned Income Tax Credit
GA	General Assistance
LIHEAP	Low Income Home Energy Assistance Program
MIP	Market Income Poverty
MOOP	Medical Out-of-Pocket Expenses
OPM	Official Poverty Measure (federal)
ORPM	Oregon Poverty Measure
SPM	Supplemental Poverty Measure (federal)
SNAP	Supplemental Nutrition Assistance Program
TANF	Temporary Assistance for Needy Families
TAXSIM	NBER Tax Microsimulation Model
TRIM3	Urban Institute Transfer Income Model, version 3
WIC	Special Supplemental Nutrition Program for Women, Infants & Children
WPM	Wisconsin Poverty Measure

KEY DEFINITIONS

Poverty

Poverty: A condition whereby an individual's (or household's) household resources are less than the poverty threshold.[3] An individual (or household) is in *deep poverty* if household resources are less than half (50%) of the poverty threshold.

Poverty Threshold: The minimum amount of resources required for a household to meet basic needs.[4]

Resources

Market Income: Earnings from wages and salary, business and farm income, plus rent, interest, dividends, and private pensions.

Cash Income from Transfers: Cash income from unemployment and workers compensation, Social Security, Supplemental Security Income, TANF/GA, veteran's payments, pension or retirement income, interest, dividends, child support, and educational assistance.

In-kind Transfers: Value of in-kind public transfers (e.g., Supplemental Assistance Nutrition Assistance).

Taxes: Net value of tax liabilities and credits.

Poverty Measures

Market Income Poverty (MIP): *Resources* include market income only. *Poverty threshold* based on estimated current costs of food, clothing, shelter and utilities, adjusted for family size, composition and housing costs (i.e., ORPM thresholds).

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[3] Resources can include both cash and non-cash resources, depending on the poverty measure.
[4] Thresholds are sometimes adjusted for family size and composition, and sometimes for geographic differences in the cost of living.

Official Poverty Measure (OPM): *Resources* include market income, plus cash income from transfers. *Poverty threshold* includes 3 times the cost of a minimum food diet in 1963, adjusted for inflation, and adjusted for family size and composition.

Oregon Poverty Measure (ORPM): *Resources* include market income, cash income from transfers, value of in-kind transfers, net taxes and selected expenses (medical out-of-pocket expenses, childcare expenses and work-related expenses). *Poverty threshold* based on estimated current costs of food, clothing, shelter and utilities, adjusted for family size, composition and housing costs.

INTRODUCTION

In this project, we created an Oregon Poverty Measure (ORPM) for the 5-year period from 2014-18. Compared to the Official Poverty Measure (OPM), the ORPM better captures the level of hardship experienced by Oregonians, permits a more accurate assessment of the impact of various national and state antipoverty policies and programs, and provides more detail about the geography of poverty in Oregon. The ORPM is necessary because of the many limitations of the OPM developed by the Census Bureau.[5] Concerns about the limitations of the OPM have led a few states to develop of alternative poverty measures (e.g., Wisconsin and California). We modeled the ORPM after these other initiatives but differed in our data sources, analysis steps, and incorporation of state-specific economic and social characteristics as well as policy priorities of the 33rd U.S. state.

Organization of the report

This report is organized in response to the following key questions about poverty in Oregon. For the most part, we describe poverty using five years of data (2014-18).[6]

1. How many Oregonians experienced poverty, and how did poverty change during the period?
2. How was poverty distributed across age and racial/ethnic groups?
3. How did poverty rates vary geographically across Oregon?
4. How many Oregonians experienced deep poverty, and how did deep poverty change over time?
5. How many Oregonians were lifted out of poverty by the safety net programs?

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[5] See the United States Census description of these differences: https://www.census.gov/library/visualizations/2017/demo/poverty_measure-how.html. See also Institute for Research on Poverty FAQ on poverty measurement for more details: https://www.irp.wisc.edu/resources/how-is-poverty-measured/
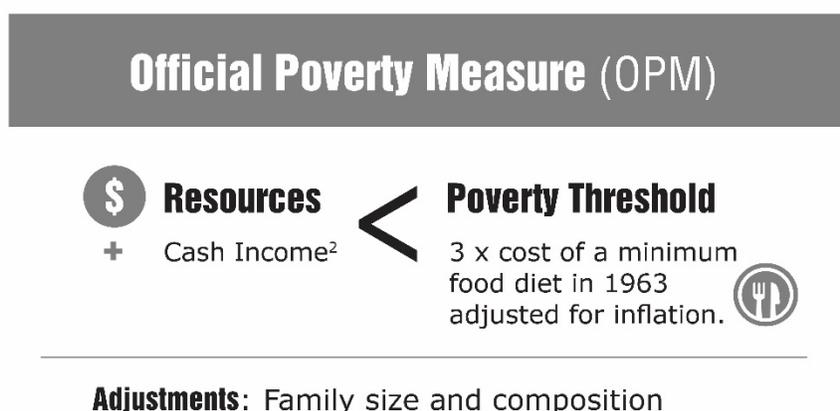
[6] All analyses use survey weights to yield statistics that are representative of the Oregon population.

Throughout the report, we make selected comparisons with other poverty measures, including the OPM and a measure of market income poverty, to highlight how the ORPM contributes to a more comprehensive picture of poverty in Oregon.

The report concludes with a summary of key findings and next steps, and observations about the contributions we expect the Oregon Poverty Measure Project to make to our understanding of Oregon's economic and policy context.

APPROACH

A person (or household) is considered to be in poverty when their economic resources fall below a pre-determined level of need. The Official Poverty Measure (OPM) produced by the Census Bureau is the national standard for understanding the levels and trends for poverty in the United States. While the OPM facilitates trend analysis back to the 1960s, the method is subject to several well-known issues that threaten its validity (National Research Council, 1995). For example, the OPM rests on an antiquated definition of family units that treats cohabiting partners as separate units and excludes foster children; omits important economic resources such as taxes and transfers (Supplemental Nutrition Assistance Program [SNAP], Earned Income Tax Credit [EITC]); and does not account for geographic variation in the cost of living. See Figure 1.

Official Poverty Measure (OPM)

$ **Resources**
+ Cash Income[2]

< **Poverty Threshold**
3 x cost of a minimum food diet in 1963 adjusted for inflation.

Adjustments: Family size and composition

Figure 1: Calculation of the Official Poverty Measure

The Oregon Poverty Measure accounts for many of the shortcomings in the OPM while incorporating some of the features of the Supplemental Poverty Measure (SPM), the most recent measure produced by the Census Bureau. The SPM overcomes many of the limitations of the OPM and is widely recognized as superior to the OPM. Like the OPM, however, the SPM relies on the in-depth income measures included in the Current Population Survey (CPS) Annual Social and Economic Supplement. The CPS is limited for state-level poverty analysis because of its relatively small sample size and inability to reliably report on poverty in sub-state geographies. Like the SPM, the ORPM includes taxes and in-kind transfers into resource estimates, as shown in Figure 2. The ORPM deviates from the SPM in its reliance on multiple data sources, including state administrative data, allowing for more accurate measurement of resources and more detailed sub-state geographic estimates.
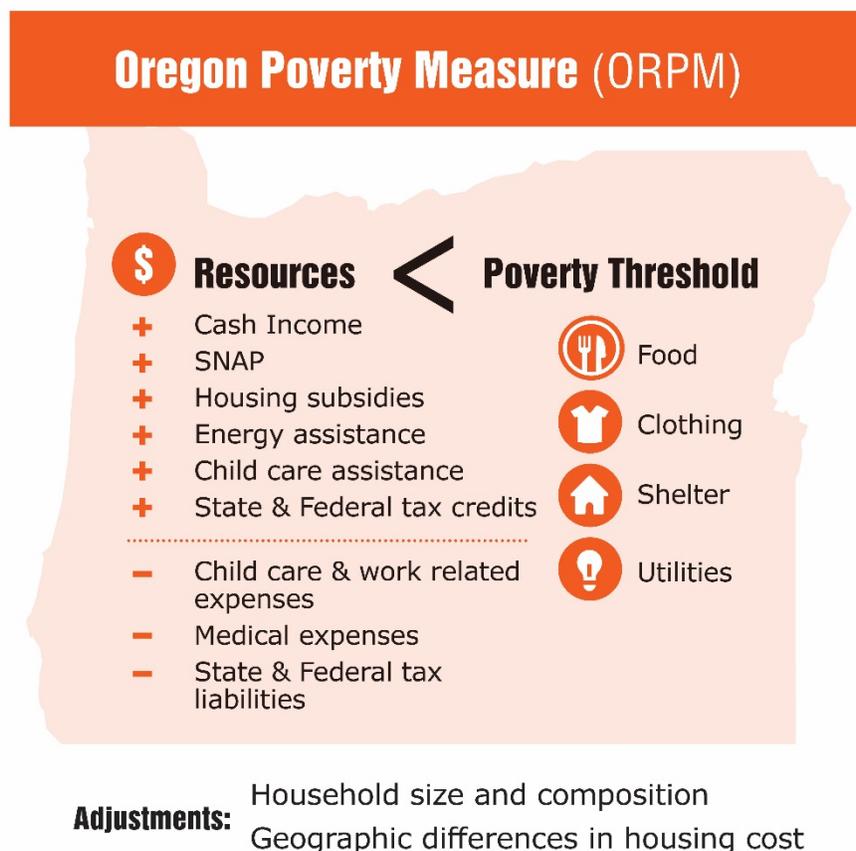
Figure 2: Calculation of the Oregon Poverty Measure

Below we briefly describe the various data sources and the analytic steps involved in creating the ORPM.

Data and analysis

In contrast to the OPM and SPM that rely on the CPS, five years of microdata from the 2014-18 American Community Survey (Ruggles et al., 2019) served as our primary source of information about individual and household-level resources. The main benefit of the American Community Survey (ACS) is a larger sample within Oregon that allows more granular analysis of poverty. The publicly available ACS, however, only includes Official Poverty Measure data and does not include all of the data needed to produce the ORPM. Thus, several adjustments were needed to create the Oregon-specific measure. Overall, the ORPM process involved adjusting

the Oregon sample of the ACS to include the resources and thresholds necessary for an SPM-like poverty measure for the state.

As shown in Figure 3, several sources of microdata were used to implement the adjustments, including the State administrative data, Current Population Survey (Flood et al., 2019), TRIM3 microdata (Urban Institute, 2014), and TAXSIM microsimulation data (Feenberg & Coutts, 1993). In addition, two sources of aggregate data were used in the adjustments: Expenditure Survey data from Bureau of Labor Statistics (U.S. Bureau of Labor Statistics, n.d.b) and aggregate statistics from the Survey of Income and Program Participation (Mohanty et al., 2017). Our analytic sample included 193,579 observations for the five years totaling an average weighted state population of 3,989,023 per year.
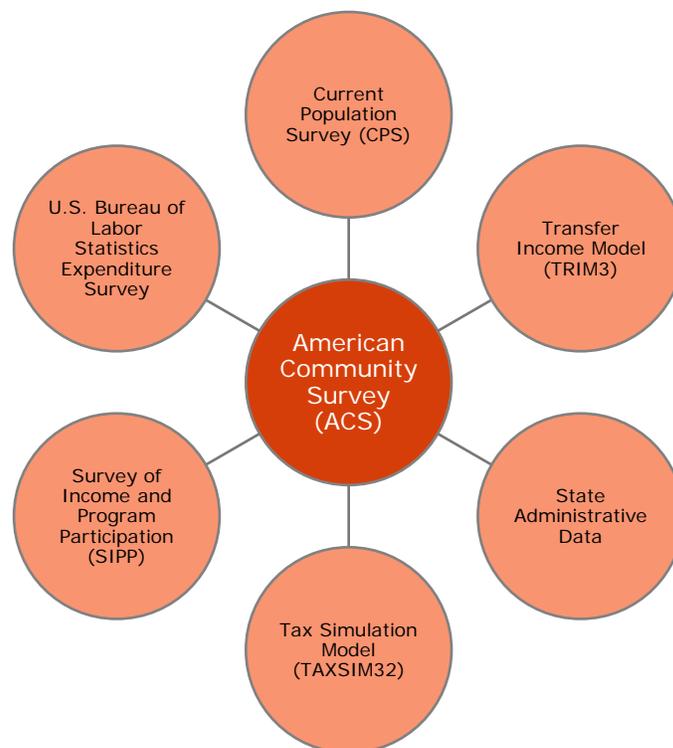
Figure 3: Data sources used in ORPM adjustments

The ORPM was created in seven analytic steps, including:

1) Identification of data sources and restrictions;

2) Definition of the ORPM resource unit, or "household"; [7]

3) Creation of poverty thresholds;

4) Estimation of ORPM unit cash and non-cash resources;

5) Estimation of ORPM unit expenses;

6) Estimation of ORPM net tax liability; [8] and,

7) Assignment of ORPM poverty status and estimating rates.

A more detailed description of our data preparation process, as well as key differences between the OPM and ORPM, is provided in Appendix A. A fully detailed Technical Appendix is also available under separate cover. The ORPM differs from other hardship metrics, such as ALICE and the Self-Sufficiency Score, as described in Appendix B.

RESULTS

Overall 5-year poverty rate

The level of poverty in Oregon differs depending on the measure used. Figure 4 shows that overall poverty across the 2014-18 period was highest using market income (19.8%), which includes cash income, but excludes non-cash transfers, taxes or expenses. [9] According to the Official Poverty Measure, poverty was significantly lower at 13.7%. Using the Oregon Poverty Measure yielded the lowest overall poverty rate at 12.8%. [10]

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[7] Throughout this report, we refer to groups of individuals who live at the same address and share resources as a "household," as described in more detail in this section. Our process yields a resource unit aligned with that of the Supplemental Poverty Measure's "SPM Resource Unit" (Fox, 2020, p. 2), which is somewhat more expansive than the "family" unit used by the Official Poverty Measure.

[8] Tax liability was calculated separately from cash and non-cash resources, even though some tax credits (e.g., EITC) effectively represent non-cash transfer.

[9] Market income poverty was calculated as resources from market income less than the ORPM poverty threshold.

[10] The difference between the ORPM and OPM rates was statistically significant at the 0.01 level.
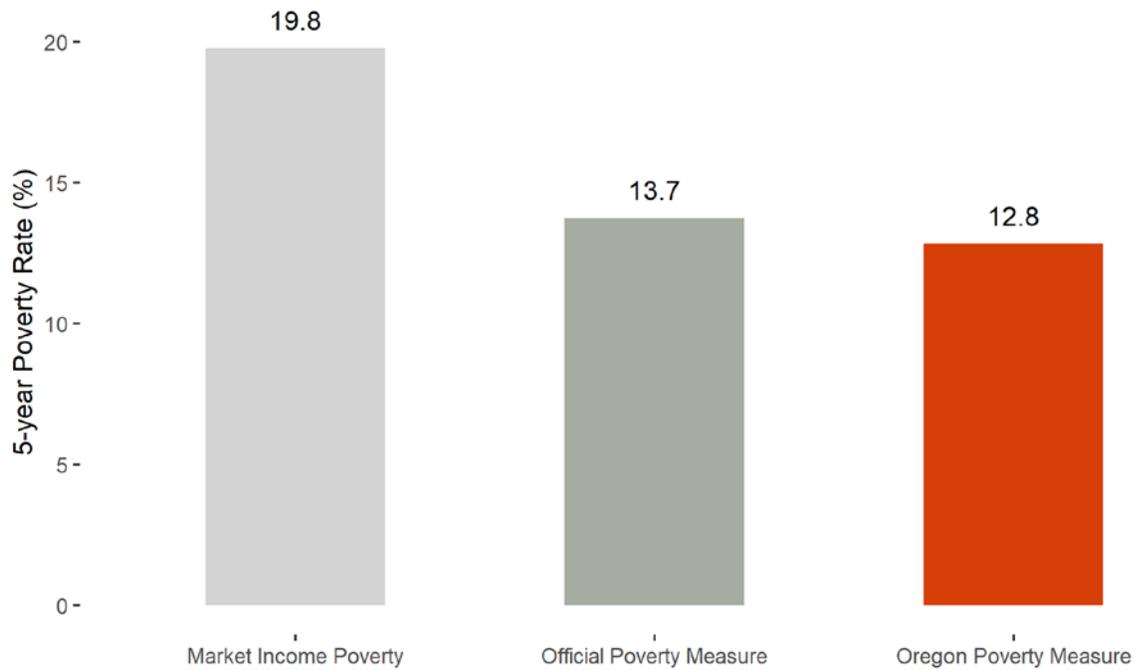
Source: Oregon Poverty Measure Project

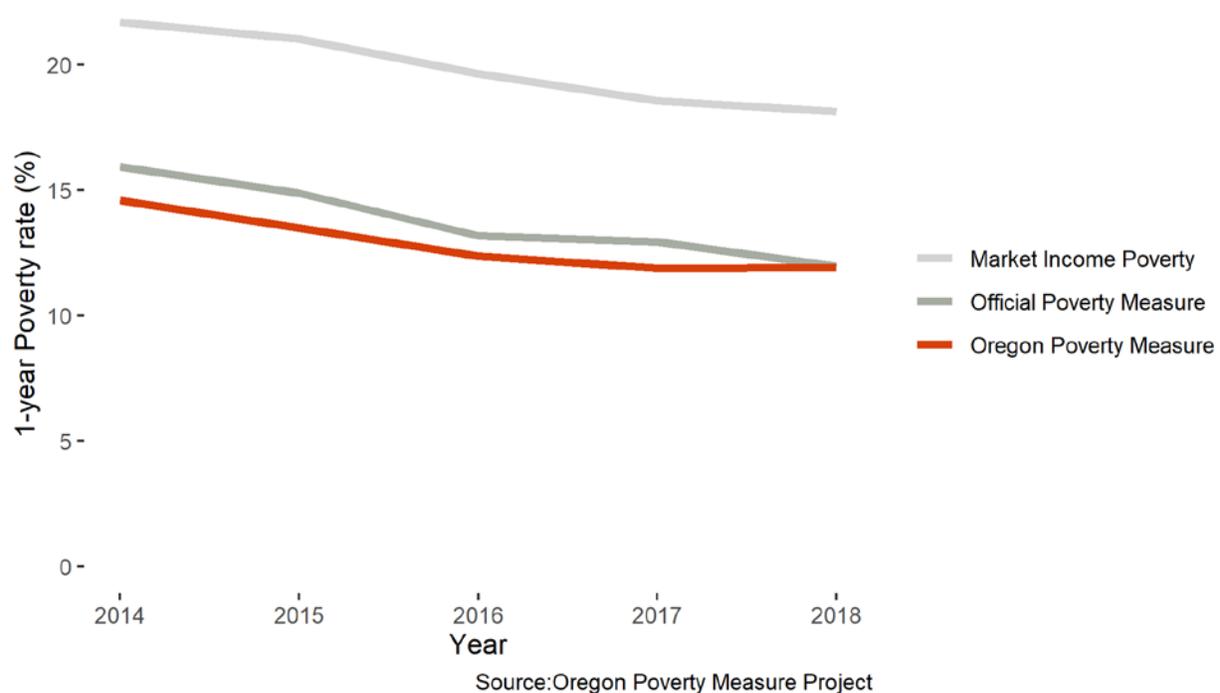*Figure 4: Overall poverty by measure*

Poverty over time

Over the course of the 2014-18 period, all three poverty measures showed a decline in poverty, likely related to the relatively low and decreasing unemployment rate observed in Oregon during this period (U.S. Bureau of Labor Statistics, n.d.a). During that time period, ORPM poverty declined from 14.6% to 11.9%.[11] In 2014, Official Poverty exceeded Oregon Poverty Measure poverty by 1 p.p., but by 2018,

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[11] The difference between 2014 and 2018 ORPM poverty was statistically significant at the 0.01 level.

Official Poverty and OPRM Poverty were equivalent.[12] By the end of the 5-year period, about 488,000 Oregonians were experiencing poverty. See Figure 5.

Source:Oregon Poverty Measure Project

Figure 5: Poverty over time and by measure

These trends suggest that during times of economic growth and consistent access to the safety net, overall poverty decreased, the effects of the safety net became less pronounced, yielding a decline in the difference between poverty measures. We expect that in the event of an economic downturn (e.g., the anticipated recession accompanying the current COVID-19 pandemic), both overall poverty and reliance on the safety net are likely to increase, presenting as a rise in all poverty measures

[12] The 2014 difference official poverty and ORPM poverty was statistically significant at the 0.01 level. In 2018, there was no statistically significant difference between the two measures.

and yielding an increasing gap between the official poverty measure and ORPM poverty. [13]

Poverty by age

During the 5-year period of this report, children under age 18 comprised over one-fifth of Oregon's population (21.6%), while adults (age 18-64) and older adults (age>64) made up 61.6% and 16.8% of the population, respectively. Figure 6 shows how the three poverty measures varied across age groups.
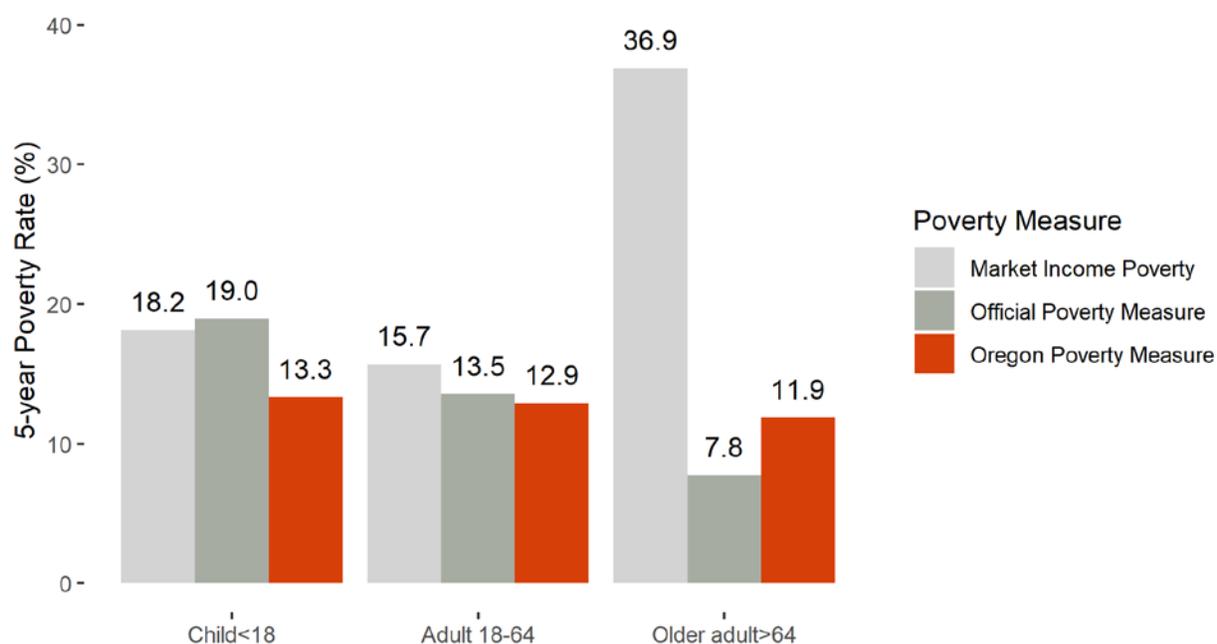
Source: Oregon Poverty Measure Project

Figure 6: Poverty by measure and age group

Measuring poverty according to market income alone, the poverty rate was 36.9% among older adults (age>64), while the rate was substantially lower among children (18.2%) and adults (15.7%). In contrast, the Official measure yielded the highest poverty among children (19.0%), followed by adults (13.5%) and seniors

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[13] Data for 2019 and 2020 are not yet available. However, we plan to develop projections for this period as part of upcoming analyses.

(7.8%), due in part to the cash income associated with Social Security entitlements. In comparison, poverty among children was considerably lower with the ORPM (11.9%). Among adults age 18-64, the ORPM poverty rate (12.9%) was slightly lower, relative to the Official Poverty Measure, while the ORPM yielded a higher poverty rate among older adults (11.9%).[14,15] According to the ORPM, relative to market income or OPM, poverty was more evenly distributed across age groups.

Over the course of the 5-year period from 2014 to 2018, all age groups experienced declines in ORPM poverty (results not pictured). In 2014, for example, the ORPM poverty rate for all age groups was between 14% and 15%, while in 2018, the rate hovered between 11% and 12%.[16]

The considerably lower ORPM poverty among children, relative to the Official measure, likely reflects the inclusion of tax credits and non-cash resources directed at families with children. These elements of the social safety net, such as the Earned Income Tax Credit and Supplemental Nutrition Assistance Program, are the primary anti-poverty interventions for children (National Academies of Sciences, Engineering, and Medicine, 2019). Moreover, the higher ORPM poverty rate among older adults likely represents the inclusion of medical expenses among that group. Subsequent reports will consider explanations for these differences (e.g., what role does the geographic adjustment play).

Poverty by race and ethnicity

The population of Oregon in our 5-year pooled sample was 84.8% White, 1.8% Black, 1.2% Native American and 1.2% other race groups. Moreover, 12.9% of

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[14] The difference between the ORPM and OPM for all age groups was statistically significant at the 0.01 level.
[15] The difference between the ORPM for children and working-age adults was statistically significant at the 0.01 level. The difference between the ORPM for children and older adults was statistically significant at the 0.01 level, as was the difference between working-age adults and older adults. However, the difference between the ORPM for children and working-age adults was statistically significant only at the 0.10 level.
[16] These declines were statistically significant at the 0.01 level for all age groups.

Oregonians were of Hispanic ethnicity, while the remaining 87.1% were Non-Hispanic. In Figure 7, we compare the Official measure with the ORPM. For both poverty measures, Whites experienced lower levels of poverty than all Nonwhite groups.
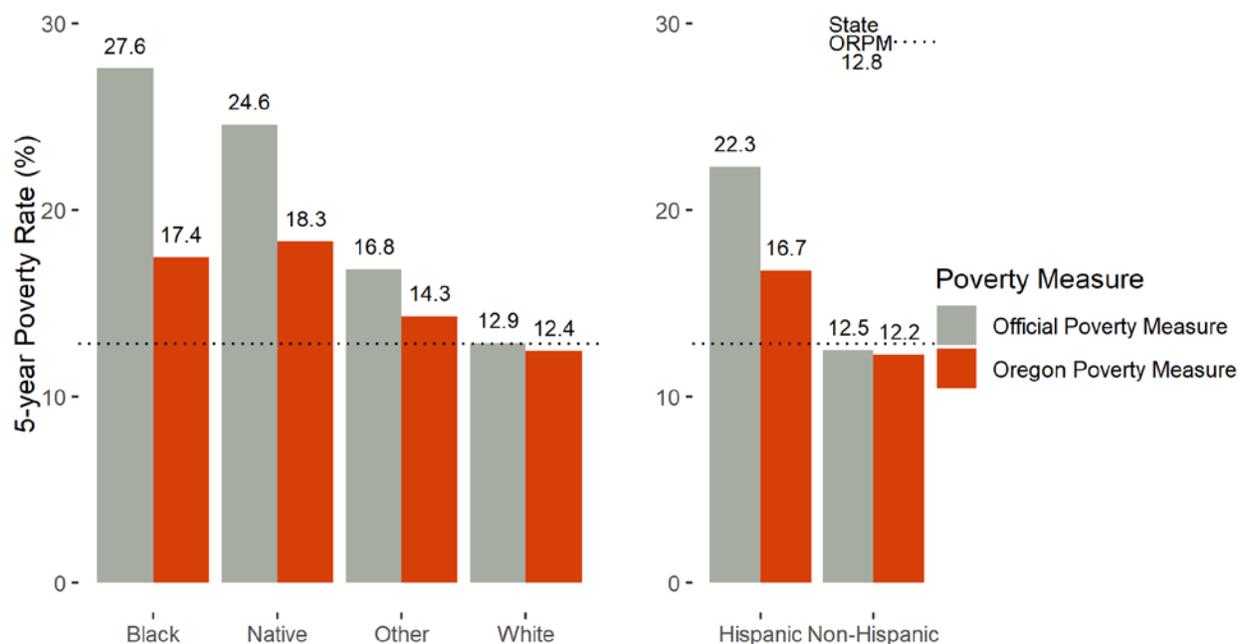
Figure 7: Poverty by measure and race group

Among Nonwhite groups, the Oregon Poverty Measure yielded lower poverty rates than the Official measure. Poverty among Blacks, for example, was over 10 p.p. lower when measured using the ORPM (17.4%) instead of the Official measure (27.6%). Similarly, among Native Americans, ORPM poverty was over 6 p.p. lower than the Official Poverty rate. Among Other race groups and Whites, the difference between the two measures was much lower (-2.5 p.p. and 0.5 p.p., respectively).[17] Importantly, however, Blacks and Native groups continued to face substantially

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[17] The difference between ORPM and Official Poverty Measure rates were statistically significant at the 0.01 level for all groups.

higher ORPM poverty (17.4% and 18.3%, respectively) than Whites (12.4%) and the state overall. Similarly, for Hispanics, the ORPM yielded lower poverty rates than the Official Poverty Measure, but Hispanics faced a considerably higher level of ORPM poverty (16.7%) than Non-Hispanics (12.2%). Findings highlight the continued higher-than-average poverty risk experienced by Nonwhite and Hispanic Oregonians.

Similar to the overall population, both racial and ethnicity groups experienced declines in poverty during the 5-year period (results not pictured). Among racial groups, Blacks experienced the greatest decline (-9 p.p.), followed by other races (-6 p.p.), Native Americans (-5 p.p.), and Whites (-2 p.p.).[18] Among Hispanics, the poverty rate decreased from 19.8 to 16.3 (-3.5 p.p.), while poverty among the Non-Hispanic population decreased by 2.6 p.p., from 13.9% to 11.2%. Despite a decrease in the gap between the highest- and lowest-poverty groups during the 5-year period, considerable disparities remained in 2018.

Geographic distribution of poverty

The ORPM captures sub-state poverty in ways not possible with other poverty measures by using a combination of two geographic designations: 1) Public Use Microdata Area (PUMA); and 2) county. PUMAs are statistical geographic areas defined by the US Census Bureau. The 31 Oregon PUMAs are built on census tracts and counties, are geographically contiguous, contain at least 100,000 people, and are nested within the state. Some PUMAs represent the aggregation of multiple counties (e.g., Umatilla, Union, Baker and Wallowa), and cannot be disaggregated to the county level.[19] In contrast, other PUMAs represent only a partial county (e.g.,

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[18] The difference in ORPM poverty rate from 2014 to 2018 was statistically significant at the 0.01 level for Whites, Blacks and Other. The difference, however, was not statistically significant among Natives.

[19] The U.S. Census Bureau aggregates some PUMAs across multiple counties to protect the confidentiality of ACS respondents in low population areas.

West Central Lane County), and can be aggregated to the county level, or left in PUMA form, as desired.

Using PUMAs, we found that the ORPM poverty rate varied substantially, from a low of 7.0% in Washington County Central/Hillsboro, to a high of 19.7% in Lane County (West Central). Figure 8 presents ORPM poverty by PUMA across three broad categories: equal to, less than, and greater than the state ORPM poverty rate (12.8%).[20]
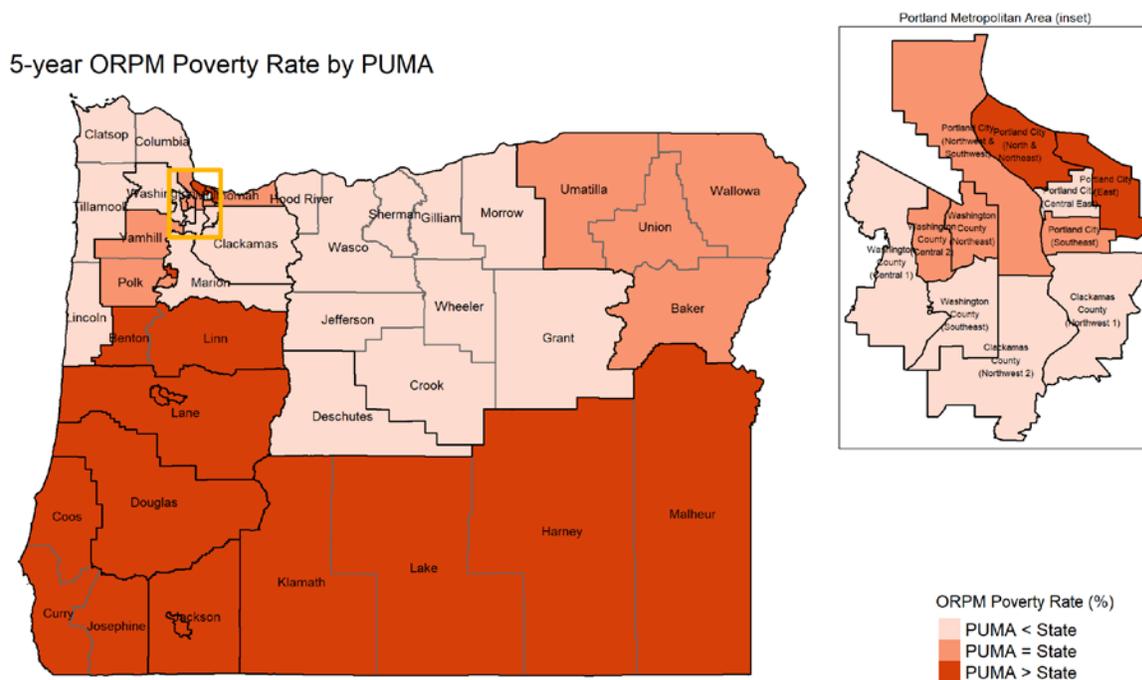
Figure 8: ORPM poverty by Public Use Microdata Area (PUMA)

[20] We used 95% confidence intervals for both PUMA and the state to assess ORPM values at the PUMA level relative to the state ORPM.

This map suggests several patterns. First, overall poverty in the Portland Metropolitan Area was mixed, with affluent Portland suburbs in Clackamas and Washington Counties showing lower-than-average ORPM poverty, while most Portland City neighborhoods showed average or higher-than-average ORPM poverty (see Figure 8 subset image). Outside of Portland, most PUMAs in the southern half of the state had higher-than-average ORPM poverty rates, while PUMAs with lower-than-average ORPM poverty were located in the north central and northwest areas of the state.[21,22]

To contrast with PUMAs, next we consider ORPM in Oregon counties and multi-county areas. Figure 9 presents the overall state rate (12.8%) as a vertical dashed line with counties/multi-counties with lower poverty rates falling below the state rate and counties/multi-counties with higher rates above the state rate.

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[21] Some of these results may reflect geographic adjustments on the basis of housing costs. See Appendix C for PUMA-level geographic adjustments.
[22] Some results for large PUMAs may mask cross-county-level variation that cannot be detected due to data limitations.
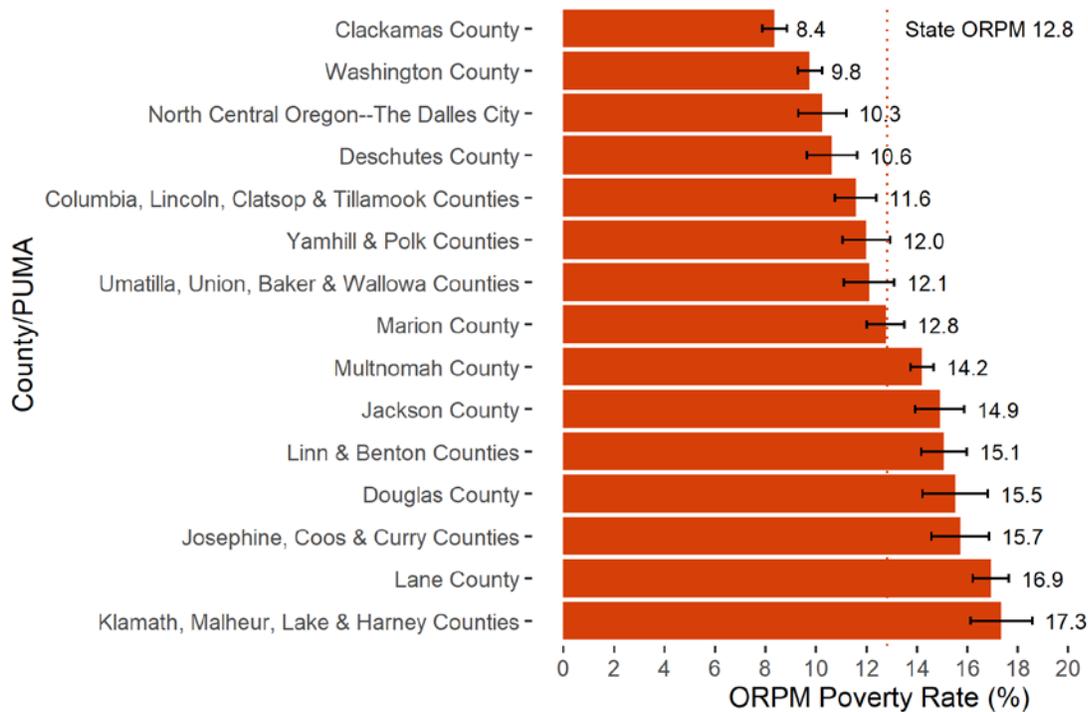
Figure 9: Poverty by county/PUMA

These observations highlight the wide geographic variation in ORPM experienced across the state. A total of five counties and multi-county PUMAs experienced ORPM poverty rate lower than the state ORPM average.[23] These counties/PUMAs represented about one-third of the state's population (36%). Another seven counties/PUMAs, comprising almost half (48%) of the state's population, exhibited ORPM poverty higher than the state average. The remaining three counties/PUMAs were not significantly different from the state ORPM 5-year poverty rate.

Deep poverty

Indicators of poverty depth offer an assessment of the magnitude of poverty among Oregonians. To better understand the depth of poverty among Oregonians, we estimated the share of Oregonians whose net resources were less than half (<50%)

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[23] This difference was statistically significant at the 95% level. Confidence intervals for each county/PUMA are shown by black error bars in Figure 8.

of the ORPM poverty threshold. Among all Oregonians, fewer than 4% were categorized as being in deep poverty, amounting to about one-third of individuals in ORPM poverty.

Similar to overall poverty rates, the share of Oregonians in deep poverty was considerably lower when measured with the Official Poverty Measure and the ORPM, compared with market income. And as with the overall poverty rate during the 5-year period, a smaller share of Oregonians experienced deep poverty under the ORPM (3.7%) than the Official measure (6.0%). See Figure 10. The ORPM indicator of deep poverty shows that around 4% of the state, or about 147,000 Oregonians, experienced severe economic hardship.
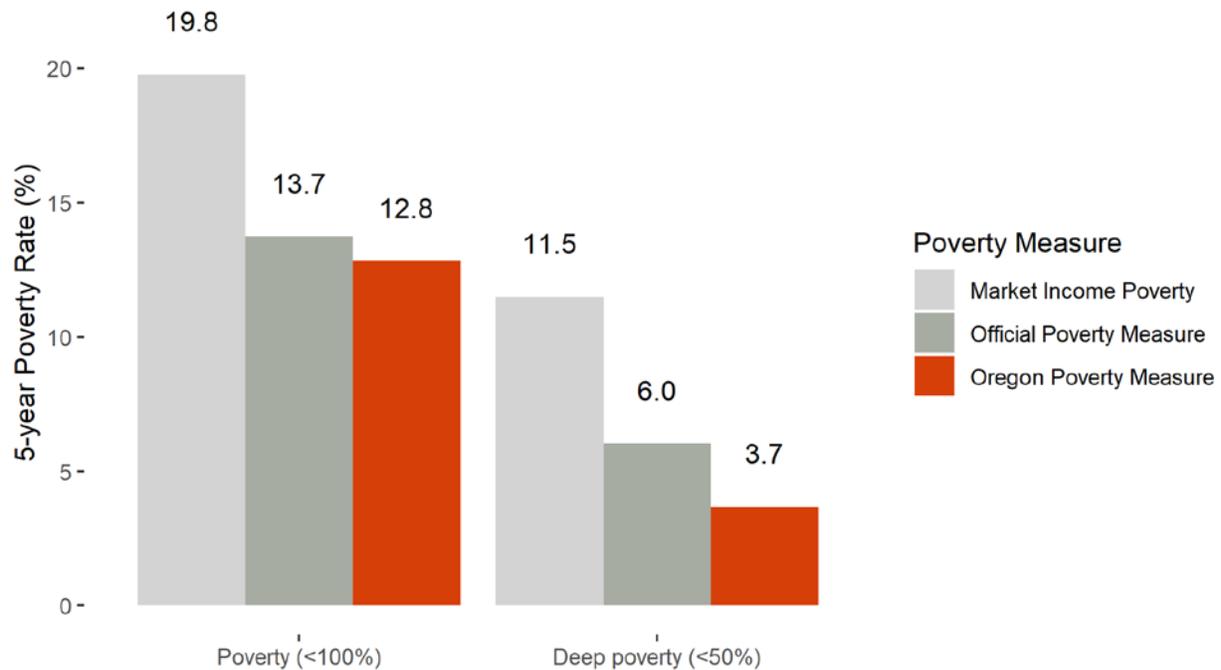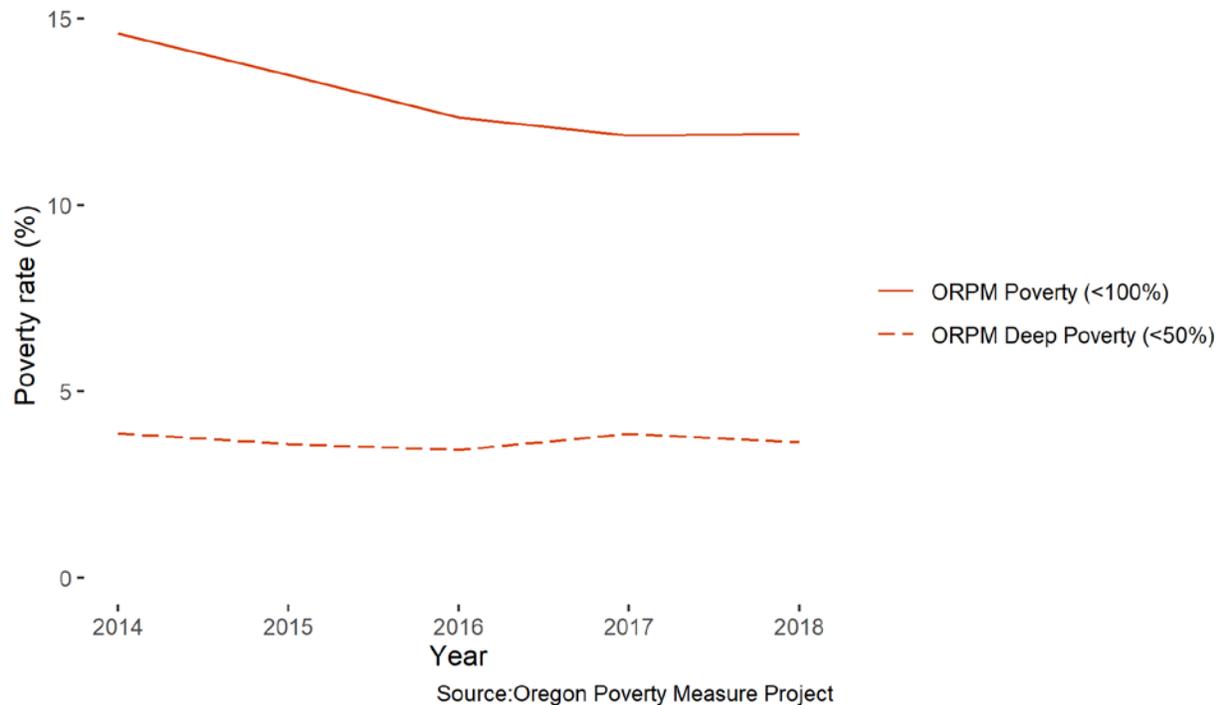
Source: Oregon Poverty Measure Project

Figure 10: Poverty and deep poverty by measure

Looking at the ORPM poverty measure over time shows that while overall poverty decreased significantly from 2014 to 2018, deep poverty remained virtually unchanged over the same period of time.[24] See Figure 11.

Figure 11: ORPM poverty and deep poverty over time

Across age groups, we see only slight differences in deep poverty. For children and older adults, the deep poverty rate was 3.1% and 3.3%, respectively, while 3.9% of working-age adults experienced deep poverty (results not pictured).[25] Over the 2014-18 period, deep poverty remained unchanged among children and working-

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[24] While the magnitude of differences are small, they were statistically significant. Difference between working-age adults and older adults are statistically significant at the 0.01 level, as are differences between working-age adults and children.
[25] Differences in deep poverty over time for older adults were statistically significant at the 0.01 level. Differences for other age groups were not statistically significant.

age adults, although there is some evidence that deep poverty among older adults decreased by about 1 p.p., from about 3.7% to 2.7%. See Figure 12.
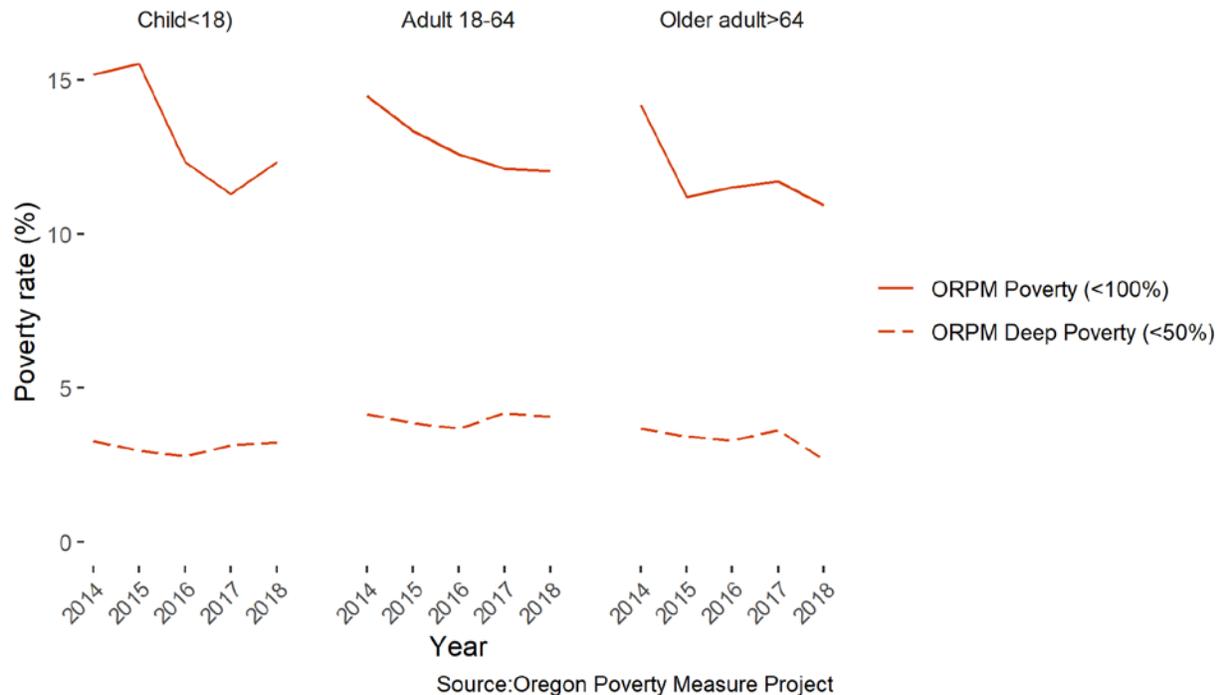
Figure 12: ORPM poverty and deep poverty over time by age group

Among various racial groups, deep poverty was 3.3% and 3.4% among Black and White Oregonians, respectively, and 4.2% and 4.8% among other groups and Natives, respectively (results not pictured).[26] Over the 2014-18 time period, only Native Americans experienced a change in deep poverty, from 6.5% to 3.3%.[27] No other racial groups showed a statistically significant change over time. See Figure 13.

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[26] Statistically significant differences between racial groups were detected between Blacks and Natives ($p<0.05$), between Whites and Other groups ($p<0.05$) and between Whites and Natives ($p<0.05$).
[27] The change was statistically significant at the 0.10 level.
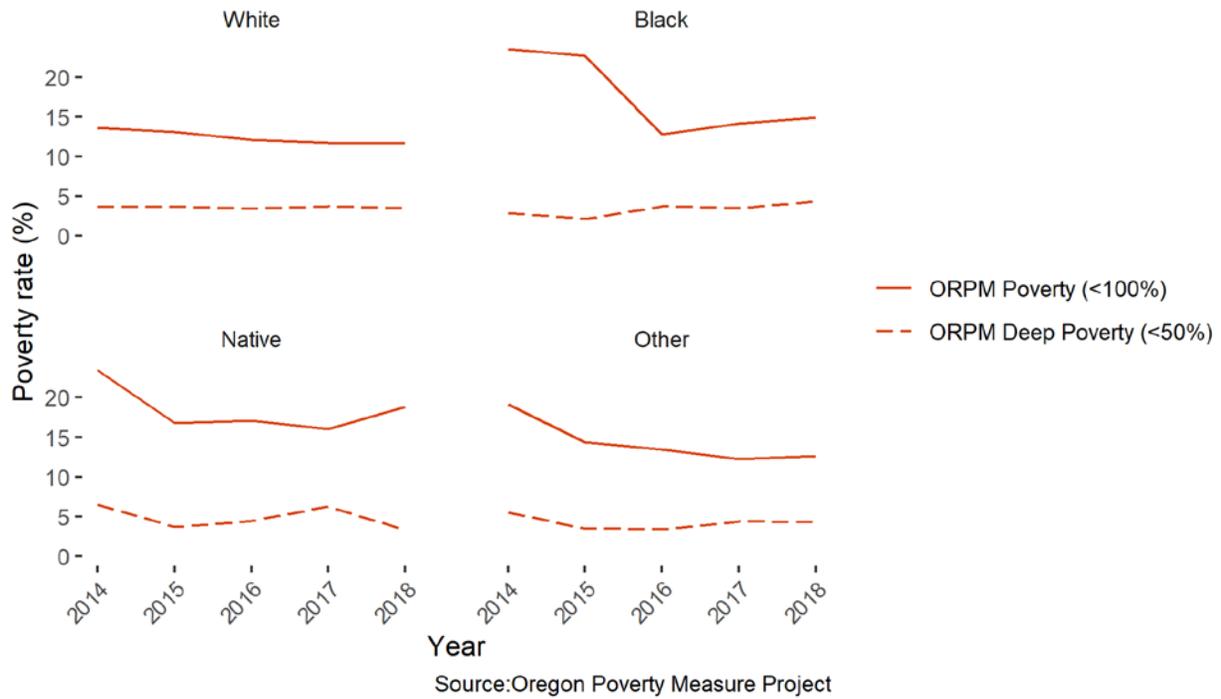
Figure 13: ORPM poverty and deep poverty over time by race group

Similar to our observations with race and age groups, neither Hispanics nor Non-Hispanics experienced a change in deep poverty between 2014 and 2018.[28] See Figure 14.

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[28] The 0.7 p.p. decline among Hispanics (from 4.3% to 3.5%) was not statistically significant.
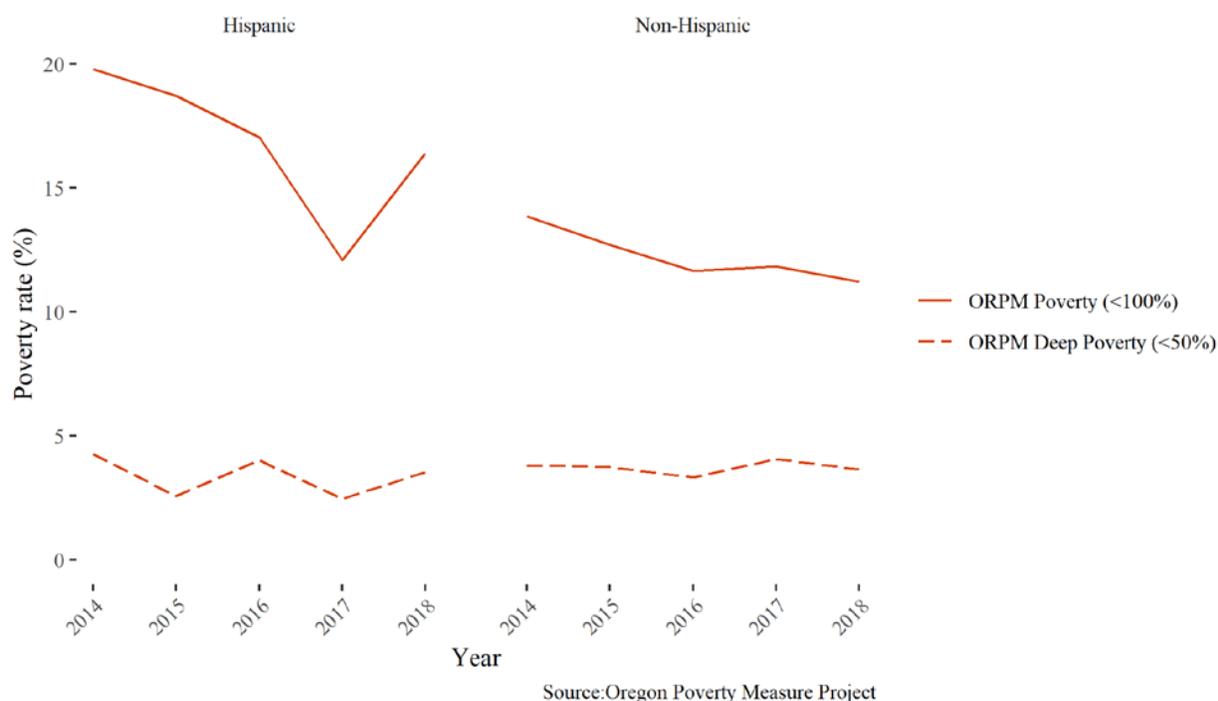
Figure 14: ORPM poverty and deep poverty over time by ethnicity group

These findings suggest that for most groups, with the exception of older adults, the economic growth and low unemployment over the 5-year period did not yield a measurable change in deep poverty.

Poverty and the safety net in Oregon

The ORPM accounts for a variety of public transfers, taxes, and expenses in the calculations. Figure 15 shows how the number of individuals in poverty in 2018 would change without selected resource components – transfers, noncash benefits, taxes, and expenses (i.e., the static effects).[29] The most impactful safety net program, Social Security income, moved a total of about 320,000 Oregonians out of poverty, of whom 73.0% are older adults (age>64). In the absence of Social Security income, the overall ORPM poverty rate would be 19.7%, and 43.0% for

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[29] Static effects do not take into account any household behavioral responses to changes in transfers, taxes, or expenses.

older adults. Federal refundable tax credits (Child Tax Credit and Earned Income Tax Credit) had the highest impact on children, lifting some 58,000 Oregon children out of poverty, followed by SNAP benefits (15,000) and Supplemental Security Income (11,000). In the absence of federal tax credits, the child ORPM poverty rate would be 19.1%, over 5 p.p. higher than the estimated 13.4% ORPM child poverty rate accounting for all programs.

Other public transfers that contributed to lowering the number of Oregonians in poverty included Supplemental Security Income (-29,000 individuals), housing subsidies (—21,000) and Temporary Aid for Needy Families (TANF) (-9,000). Oregon-specific refundable tax credits, including the Child and Dependent Care Tax Credit and the Earned Income Tax Credit, also had a modest impact on poverty among Oregonians (-4,000).
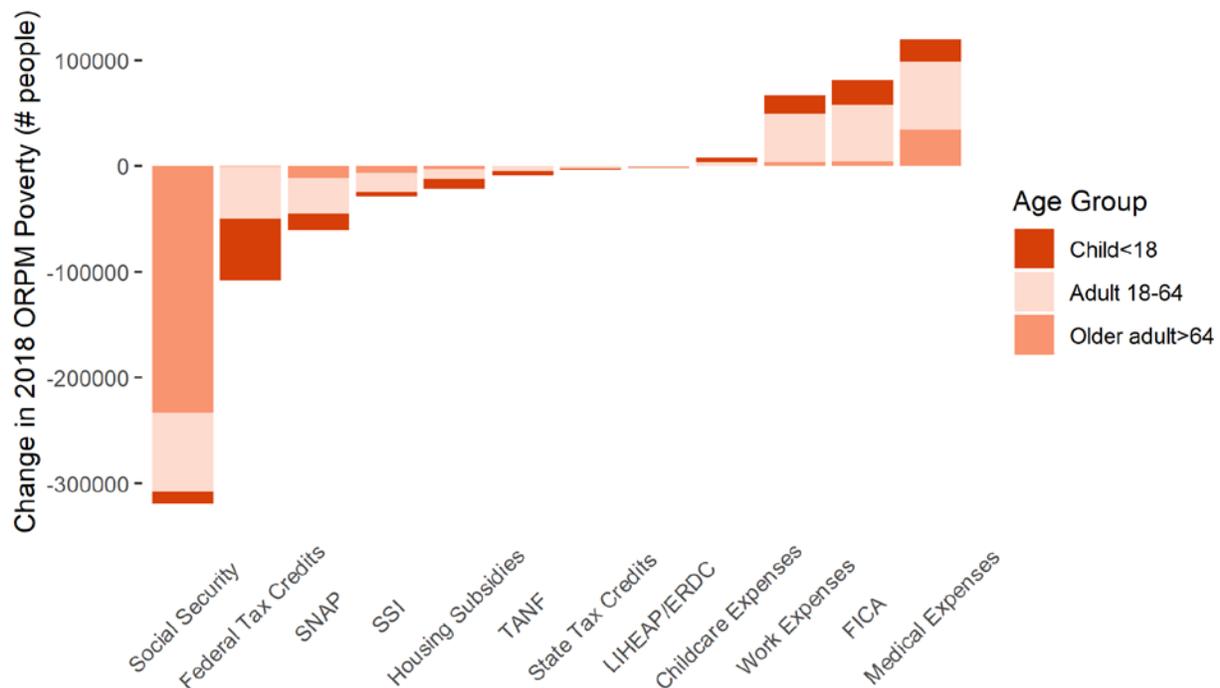
Source: Oregon Poverty Measure Project

Figure 15: Changes to ORPM poverty by safety net program/policy and age group

In contrast to the poverty reduction effects of public transfers, selected expenses and taxes put upward pressure on the poverty rate, as we might expect. Notably, Medical Out-of-Pocket (MOOP) expenses moved the largest number of people into ORPM poverty. In Oregon, approximately 65,000 working-age adults (age 18-64) moved into poverty when MOOP expenses were considered in the poverty measure, while MOOP expenses moved about 34,000 older adults (age>64) into ORPM poverty. Both payroll taxes (FICA) and federal taxes also moved individuals into poverty, especially adults aged 18-64 (+54,000 and +8,000, respectively) and children (+16,000 and +6,000, respectively). Older adults were much less impacted by FICA and federal taxes, presumably because senior adults are less likely to live in households with working adults and are likely to have lower levels of taxable income.

SUMMARY AND NEXT STEPS

Compared with the Official measure, the Oregon Poverty Measure offers a more comprehensive assessment of the levels of poverty, risk of poverty by various age, race and ethnicity groups, and how poverty is distributed across the state. While the overall ORPM poverty rate was slightly lower than the Official rate, detailed analysis reveals age-specific variation, with lower poverty among children and higher poverty among older adults. Despite conditions of strong economic growth and low unemployment during the period that yielded overall gains among all groups, considerable racial and ethnic disparities remained, and deep poverty was unchanged. Our PUMA-level estimates show that poverty rates were unevenly distributed in the Portland metro area and that some geographic areas experienced high poverty levels even after adjusting for lower cost of living. Using the ORPM, we illuminate the poverty-reducing impact of the federal and state safety net systems while also highlighting costs and expenses that push people into poverty.

The project is ongoing with plans for additional analyses. Our vision for the ORPM is to produce policy-relevant information that both reflects and reveals important shifts in the Oregon economic and policy context, as well as likely impacts on

poverty among Oregonians.[30] The ORPM is uniquely positioned to forecast how poverty rates may be affected by the employment losses and safety net policy responses to the COVID-19 pandemic. Oregon unemployment rate peaked at 15% and has begun a steady recovery (U.S. Bureau of Labor Statistics, 2020), but it is clear that low wage and service workers were the most vulnerable to the labor market changes (Oregon Office of Economic Analysis, 2020). Unprecedented responses at the federal (e.g., Coronavirus Aid, Relief, and Economic Security Act (CARES Act)) and state levels ameliorated much of the poverty risk brought about by the pandemic.

Relatedly, based on the strength of the ORPM relative to other measures, we anticipate that policymakers and service providers will use the ORPM to inform policy debates and decisions. In addition to estimating the effects of past policy changes, the ORPM will serve as the premier data source for analyzing policy changes, such as those related to renewal of the Oregon Earned Income Credit (e.g., *HB3028*, 2019). We also expect that a multi-year ORPM can provide a method for parsing how the economy interacts with social policies and demographic changes to affect levels of poverty. For example, Oregon implemented a new minimum wage increase in 2016 (Oregon Bureau of Labor and Industries, n.d.); the ORPM offers a tool for examining the effects of that policy on low-income households. Similarly, the ORPM offers a unique lens into the long-term rise in average housing costs that have eroded individual and household resources in affected geographic areas (Rogoway, 2019). The ORPM may provide insight into local effects of statutes associated with proposed housing proposals, such as HB 2001 (*HB2001*, 2019), intended to diversify allowable housing types and thus decrease housing costs (Oregon Housing Alliance, 2019; Parker, 2019).

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[30] The project uses the most recent data available that always includes a time lag.

Finally, the ORPM can provide insights into the effects of Oregon's unique social welfare system. Features that distinguish Oregon from other states include distinctly progressive approaches to social welfare alongside a collaborative policy environment (Giordono & Edwards, 2018; Semuels, 2016). We anticipate, for example, that the unique combination of high SNAP participation (Edwards et al., 2016), low-income childcare investments (Weber et al., 2014) and Oregon Earned Income Credit (Rothwell et al., 2019), may act in combination to reduce poverty. Further, Oregon has a long history of expanding public health insurance, which has been shown to increase the use of health care services and reduce large medical out-of-pocket expenditures among Oregonians (Finkelstein et al., 2016, 2019). The ORPM is uniquely positioned to assess the effects that state-level initiatives have on poverty among Oregon families.

In the short-term, we expect the project to produce policy briefs that illuminate key findings, provide policy analysis, and generate forecasts, such as:

- ORPM poverty in rural and urban areas
- Impacts of the Oregon Earned Income Credit and other safety net programs on ORPM child poverty
- 2020 ORPM poverty forecasts (related to Covid-19 conditions)

We look forward to receiving feedback from interested stakeholders, expanding on the preliminary findings presented in this report, and leveraging the Oregon Poverty Measure for future policy analysis and decision-making.

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APPENDIX A

ORPM methods overview

The ORPM measures an individual's poverty status by comparing their household's resources with a pre-determined poverty threshold; those under the threshold are designated as being in ORPM poverty, while those at or above the threshold are designated as not in poverty. Despite the apparent simplicity of the poverty designation process, the Oregon Poverty Measure relies on multiple data sources and seven discrete analytic tasks to assign poverty status and generate ORPM poverty rates. Development of the 2014-18 Oregon Poverty Measure followed a similar approach as the federal Supplemental Poverty Measure (Fox, 2020), the state-level anchored Supplemental Poverty Measure (Columbia Poverty and Social Policy Center, n.d.) and other state-level SPMs. In particular, our methods were heavily informed by both the California Poverty Measure (e.g., Bohn et al., 2017; Mattingly et al., 2019) and the Wisconsin Poverty Measure (e.g., Marks et al., 2011; Smeeding & Thornton, 2019), as well as the broad recommendations offered by Renwick (2015).

The ORPM development process was comprised of seven analytic steps, which are extensively documented in the Technical Appendix (under separate cover). The steps included:

1) Identifying data sources and restrictions;
2) Defining the ORPM resource unit, or "household" [31];
3) Creating poverty thresholds;
4) Estimating ORPM unit cash and non-cash resources;
5) Estimating ORPM unit expenses;

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[31] Throughout this report, we refer to groups of individuals who live at the same address and share resources as a "household," as described in more detail in this section. Our process yields a resource unit aligned with that of the Supplemental Poverty Measure's "SPM Resource Unit" (Fox, 2020, p. 2), which is somewhat more expansive than the "family" used by the Official Poverty Measure.

6) Estimating ORPM net tax liability[32]; and,

7) Assigning ORPM poverty status and estimating rates.

Step 1. Similar to the SPM, we began by excluding individuals living in group quarters or institutionalized. In alignment with the Wisconsin and California measures, we also excluded selected college-age individuals who live at home and who work limited hours and weeks.

Step 2. We then defined our households to include unmarried partners and other selected non-relatives of the household head.

Step 3. We calculated ORPM poverty thresholds using aggregate national SPM threshold amounts and shares (U.S. Bureau of Labor Statistics, n.d.b), to which we applied 1) geographic adjustments at the sub-state level to adjust for regional variation in relative housing costs, using estimates of median housing costs from a 5-year sample of the American Community Survey (Ruggles et al., 2019); and 2) equivalence scales to adjust for the size of the household (Betson, 1996).

Steps 4-6. Microdata from the American Community Survey (IPUMs, n.d.) served as our primary source of information about individual and household-level resources. We conducted statistical modeling to estimate selected other resources and expenses using supplemental microdata from the 2016-18 Current Population Survey (Flood et al., 2019), 2014-15 TRIM microdata (Parolin, 2019; TRIM3 project website, downloaded on 04/19/2019) and aggregate estimates from the Survey of Income and Program Participation (Mohanty et al., 2017). Tax liabilities and credits were estimated using the TAXSIM27 microsimulation model (Feenberg & Coutts, 1993; National Bureau of Economic Research, n.d.). Our approach was informed by the Supplemental Poverty Measure (e.g., Fox, 2020) and other state-level equivalents, including the California Poverty Measure (e.g., Bohn et al., 2017;

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[32] Tax liability was calculated separately from cash and non-cash resources, even though some tax credits (e.g., EITC) effectively represent a public transfer.

Mattingly et al., 2019), the Wisconsin Poverty Measure (e.g., Marks et al., 2011; Smeeding & Thornton, 2019) and related guidance (Renwick, 2015).

Step 7. We assigned poverty status to individuals with household resources less than their household-specific poverty threshold. We identified individuals in deep poverty as those with household resources less than half of their household-specific poverty threshold. We estimate poverty rates for the state and various sub-groups using person-level weights from the American Community Survey.

The ORPM deviates from the OPM in several ways. The main differences include: 1) definition of the household (resource unit); 2) exclusion of college-age students from the sample; 3) calculation of the poverty threshold; 4) data source(s); 5) inclusion of non-cash resources and tax liabilities; and 6) inclusion of selected expenses. Our methods are extensively documented in a separate Technical Appendix. Of note, the ORPM also differs from other hardship metrics, such as ALICE and the Self-Sufficiency Score (see Appendix B for details).

APPENDIX B

Comparing poverty measures

The ORPM is similar to the Official Poverty Measure in terms of assigning poverty status based on comparing household resources to a poverty threshold. However, there are several major differences between the ORPM and the Official Poverty Measure, including: 1) definition of the resource unit; 2) exclusion of college-age students from the sample; 3) calculation of the poverty threshold; 4) data source(s); 5) inclusion of non-cash resources and tax liabilities; and 6) inclusion of selected expenses.

While there are selected differences between the ORPM and other state SPMs, the ORPM is broadly aligned with these approaches. Table B1 compares the composition of the ORPM with the California Poverty Measure, the Wisconsin Poverty Measure, the Supplemental Poverty Measure and the Official Poverty Measure.

Table B1: ORPM Compared with Other Poverty Measures

Step	Key Component	OR Poverty Measure (2014-18)	CA Poverty Measure (2011-17)	WI Poverty Measure (2008-17)	U.S. Supplemental Poverty Measure Threshold (2009-18)	U.S. Official Poverty Measure Threshold (1967-18)
Identify restrictions	Excluded populations	Individuals in group quarters; some **college-aged students**	Individuals in group quarters; some **college-aged students**	Individuals in group quarters; some **college-aged students**	Individuals in group quarters	Individuals in group quarters
Define resource unit	Poverty unit	Resource unit/household: **includes** unmarried partners, co-resident, unrelated children, foster children, and unmarried partners and their relatives	Poverty unit/household: **includes** unmarried partners, co-resident, unrelated children, foster children, and unmarried partners and their relatives	Resource-sharing unit/household: **includes** unmarried partners, co-resident, unrelated children, foster children, and unmarried partners and their relatives	SPM resource unit/household: **includes** unmarried partners, co-resident, unrelated children, foster children, and unmarried partners and their relatives	Family: **excludes** unmarried partners, co-resident, unrelated children, foster children, and unmarried partners and their relatives
Calculate poverty thresholds	Basis for poverty threshold	Applies FCSU-based equivalence scales and geographic adjustment at **PUMA level**	Applies FCSU-based equivalence scales and geographic adjustment at **county level**	Applies FCSU-based equivalence scales, geographic adjustment at **regional level, WI-specific COL adjustments** and **Medical Out-of-Pocket Expenses**	FCSU; applies equivalence scales and geographic adjustment at **state and metro/nonmetro level**	**Food:** Cost in 1963 of the US Dept of Agriculture economy food plan adjusted for CPI inflation

Estimate resources	Cash resources	ACS 1-year sample: Includes cash income from earnings, unemployment and workers compensation, Social Security, Supplemental Security Income, public (cash) assistance, veteran's payments, pension or retirement income, interest, dividends, child support, and educational assistance. **CPS 3-year sample**: Used to correct for ACS TANF/GA under-reporting	ACS 1-year sample: Includes cash income from earnings, unemployment and workers compensation, Social Security, Supplemental Security Income, public (cash) assistance, veteran's payments, pension or retirement income, interest, dividends, child support, and educational assistance. **State administrative data**: Used to correct for ACS TANF/GA under-reporting	ACS 1-year sample: Includes cash income from earnings, unemployment and workers compensation, Social Security, Supplemental Security Income, public (cash) assistance, veteran's payments, pension or retirement income, interest, dividends, child support, and educational assistance.	**CPS 1-year sample**: Includes cash income from earnings, unemployment and workers compensation, Social Security, Supplemental Security Income, public (cash) assistance, veteran's payments, pension or retirement income, interest, dividends, child support, and educational assistance.	**CPS 1-year sample**: Includes cash income from earnings, unemployment and workers compensation, Social Security, Supplemental Security Income, public (cash) assistance, veteran's payments, pension or retirement income, interest, dividends, child support, and educational assistance.
	Non-cash resources	**TRIM 1-year sample**: Used to correct CPS SNAP **CPS 3-year sample**: Used to impute SNAP and housing subsidy to ACS sample	**State administrative data**: Used to correct SNAP participation and impute school meals subsidy **CPS 3-year sample**: Used to	**State administrative data**: Used to impute SNAP, housing subsidy and LIHEAP subsidy to ACS sample	**CPS 1-year sample**: Includes SNAP, housing subsidies, school meals, WIC, LIHEAP	**None**

		Oregon Administrative Data: Used to estimate SNAP, TANF, LIHEAP and ERDC participation and benefit values. **PUMA median rent:** used to estimate housing subsidy value. **WIC, LIHEAP, and school meals not included**	impute housing subsidies and WIC to ACS sample. **HUD Fair Market Rent**: Used to estimate housing subsidy value. **LIHEAP not included**	**WIC and schools meals not included**		
Estimate expenses	Medical Out-of-Pocket Expenses (MOOPs)	CPS 3-year sample: Used to impute MOOPs to ACS sample	CPS 3-year sample: Used to impute MOOPs to ACS sample	**Not included as an expense** (included in threshold)	CPS 1-year sample: Includes MOOPs	**None**
	Child care and work-related expenses	CPS 3-year sample: Used to impute child care expenses to ACS sample SIPP aggregate data: Used to estimate work-related expenses in ACS sample	CPS 3-year sample: Used to impute child care expenses to ACS sample SIPP aggregate data: Used to estimate work-related expenses in ACS sample	CPS 3-year sample: Used to impute child care expenses to ACS sample SIPP aggregate data: Used to estimate work-related expenses in ACS sample; **adjusted for commutes from rural areas**	CPS 1-year sample: Includes child care expenses SIPP aggregate data: Used to estimate work-related expenses in CPS sample	**None**
Estimate net taxes	Federal and state tax	TAXSIM: Used to estimate federal	TAXSIM: Used to estimate federal	**In-house tax simulation**	**Census Bureau tax calculator**:	**None**

	liabilities and credits	and state net taxes, including payroll taxes, income taxes and tax credits	and state net taxes, including payroll taxes, income taxes and tax credits	**model**: Used to estimate federal and state net taxes, including payroll taxes, income taxes and tax credits	Used to estimate federal and state net taxes, including payroll taxes, income taxes and tax credits	
Assign poverty status	Total resources< poverty threshold	Resource unit in poverty if: ((Resources – Expenses) + Taxes) < Poverty Threshold	Resource unit in poverty if: ((Resources – Expenses) + Taxes) < Poverty Threshold	Resource unit in poverty if: ((Resources – Expenses) + Taxes) < Poverty Threshold	Resource unit in poverty if: ((Resources – Expenses) + Taxes) < Poverty Threshold	Family in poverty if: Resources < Poverty Threshold

Comparing ORPM with other hardship metrics

Given the well-known limitations in the Official Poverty Measure (OPM), several efforts have been initiated to create alternative indicators to gauge poverty and economic hardship in local areas.[33] The ALICE (Asset Limited[34], Income Constrained, Employed) project from the United Way (2018a) and the Self Sufficiency Standard from the University of Washington (2017) are two of the most common indicator projects referenced by policymakers and anti-poverty advocates. We briefly describe how the Oregon Poverty Measure (ORPM) differs from these other measures. We also include reference to the OPM for comparison. As a reminder, the ORPM extends directly from the Census Bureau's historical efforts to measure poverty. The major goal of the ORPM is to estimate the amount of *poverty* in Oregon and provide as much geographic detail as the data will allow. The ORPM and these metrics differ with respect to both purpose and methods, as described below.

Purpose

In spirit, the ORPM, ALICE, SSS and other efforts aim to provide better information about the landscape of economic hardship in society by acknowledging and overcoming some of the limitations in the OPM. While the general purpose is similar across initiatives, the constructs are different. The purpose of the ORPM is to measure *poverty* in Oregon. Poverty is defined as a lack of resources to meet a predefined level of need over a given time period (Smeeding, 2016). Somewhat relatedly, the purpose of ALICE is to measure the "number of individuals and families who are working but unable to afford the basic necessities of housing, child care, food, transportation, and health care" (United Way, 2018b). However, the ALICE population is slightly different; where the ORPM captures all individuals and

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[33] E.g., the Kids Count (Annie E. Casey Foundation), the Basic Needs Budget (National Center for Children in Poverty), the Family Budget Calculator (Economic Policy Institute), the Economic Security Index (Institution for Social and Policy Studies), the Living Wage Calculator (MIT), and the Assets and Opportunity Scorecard (Prosperity Now).
[34] Assets as typically conceptualized and measured in the literature (Sherraden, 1991) are not included in the ALICE measure.

families living in poverty, the ALICE measure is especially interested in families and individuals above the poverty line but below a self-defined "ALICE threshold" (United Way, 2018b). The Self Sufficiency Standard (SSS) generates detailed thresholds across geographies and for different family structures. Importantly, the SSS does not measure the resources that families have to meet needs. The Oregon SSS "defines the amount of income necessary to meet the basic needs of Oregon families, differentiated by family type and where they live" (Center for Women's Welfare, 2017).

Methods

There are considerable methodological differences between the ORPM, ALICE, and the SSS, especially related to data source(s) and threshold creation. Both the ORPM and ALICE rely heavily on the American Community Survey. The ORPM uses individual- and household-level ACS data to identify resources, whereas the ALICE metric uses aggregate data to identify county-level thresholds, or "household survival budgets," and household resources. The SSS, in turn, relies on alternative (i.e., non-ACS) data sources for threshold development, but SSS "Community Indicator" applications frequently rely on the ACS as a source of household resources for comparison with the SSS threshold to assess the degree of hardship faced by households.[35]

Because county level data in the ACS are aggregated by broad categories (e.g., $30,000, $35,000, etc.), the ALICE method rounds the threshold up or down to create a usable threshold. It then uses aggregate data from the ACS at a county level to estimate the number of people falling below the threshold. To generate the proportion of ALICE households in a given county, the method deducts the proportion of households who fall below the OPM. For example, the latest Oregon ALICE report states that 13% of households fall below OPM and an additional 28% are 'ALICE' (United Way, 2018a). The ORPM takes advantage of the granularity of

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[35] See http://www.selfsufficiencystandard.org/node/25 for more on the SSS in practice, including its use as a Community Indicator.

microdata to produce estimates and test differences, while the ALICE is constrained by the limitations of aggregate data. Moreover, ALICE takes the OPM poverty measure as valid and estimates the proportion of households who are above the OPM poverty threshold but with incomes that are below a threshold to meet a survival budget. While SSS applications vary in their use of ACS data, they also frequently rely on aggregate county level estimates of resources that lack the granularity of microdata.

The threshold creation process is also different. Both ALICE and SSS create the threshold by systematically aggregating data from a variety of sources for the local area for a wide variety of categories, including food, shelter, clothing, utilities, child care, transportation, etc. Assumptions are then made about what constitutes a given ALICE or self-sufficiency threshold. In contrast, the ORPM uses thresholds produced by the Bureau of Labor Statistics that rely on five years of data from the Consumer Expenditure Survey to anchor the threshold in spending patterns of food, clothing, shelter, utilities, and transportation and adjusts those with a geographical adjustment based on PUMA-level median housing prices. Thresholds are produced for three housing tenure groups to account for differences in housing costs (owners with mortgages, owners without mortgages, and renters). Overall, thresholds reflect average spending within the 30th to 36th percentile range of expenditures for the estimation sample, multiplied by 1.2 to account for additional basic needs (Fox, 2020). Following the official poverty measure methodology (OPM and SPM), the ORPM deducts a range of other expenditures from the household resources bundle, rather than building into the budgetary threshold. See Table B2 for a comparison of how various expenditure categories are included in each metric.

Table B2: Inclusion of expenditure categories in metrics

Category		ORPM		OPM		ALICE		Self-Sufficiency	
		Added to Threshold	Deducted from Resources	Added to Threshold	Deducted from Resources	Added to Threshold	Deducted from Resources	Added to Threshold	Deducted from Resources
Food		X		X		X		X	
Clothing		X				X		X	
Housing		X				X		X	
Utilities		X				X		X	
Child care			X			X		X	
Transportation			X			X		X	
Health care			X			X		X	
Taxes			X			X		X	
Other Miscellaneous		X				X		X	
Emergency savings								X	

Finally, while both the ORPM and ALICE adjust for geographic differences and family size, the ORPM makes additional distinctions to the threshold according to housing tenure. The differences in the threshold creation process therefore yield considerable differences in the ORPM and ALICE thresholds, as shown in Table B3 and Figure B1.

Table B3: Sample thresholds by metric

Threshold	ORPM	OPM	ALICE	Self-Sufficiency
Multnomah: Thresholds 2 adults, 1 infant, 1 preschooler	Renters: $24,081 Owners w/mortgage: $27,318 Owners w/o mortgage: $23,428	$24,858	$45,000	$84,235
Douglas: Thresholds 2 adults, 1 infant, 1 preschooler	Renters: $27,237 Owners w/mortgage: $24,143 Owners w/o mortgage: $21,148	$24,858	$50,000	$43,139
Note: Multnomah is Multnomah County East – Gresham and Troutdale. ORPM and OPM does not distinguish between child ages.				
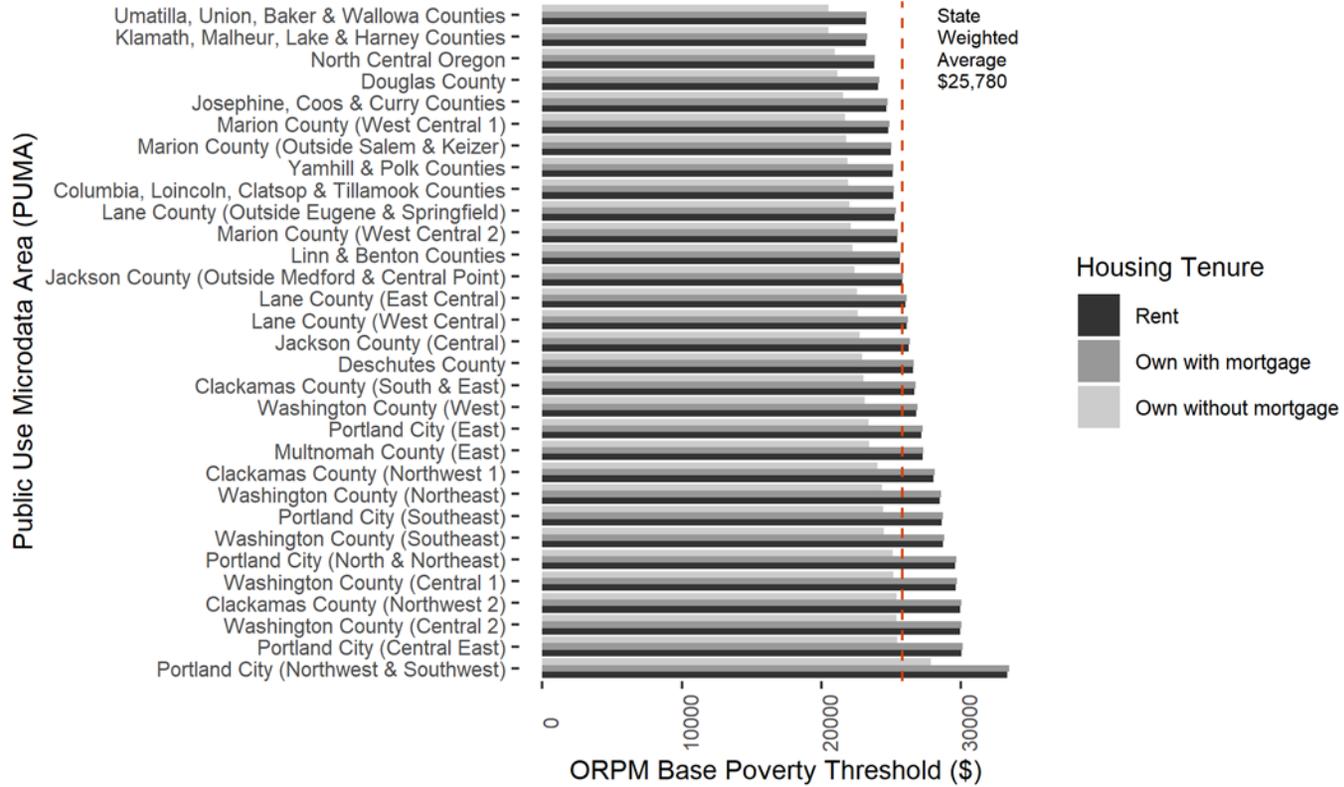
Figure B1: Base Poverty Thresholds by PUMA (2 adults and 2 children)