

Port of Portland Workforce Demographics and Equity

FINAL REPORT
October 20, 2023

Report by Fourth Economy



Fourth Economy is a national community and economic development consulting firm. Powered by a vision for an economy that serves the people, our approach is centered on principles of competitiveness, equity, and resilience. We partner with communities and organizations, public and private, who are ready for change to equip them with tools and innovative solutions to build better communities and stronger economies.

www.fourtheconomy.com • engage@fourtheconomy.com

Introduction

This report is a supplement to the economic impact analysis of the Port of Portland across its aviation, marine and business park facilities for the Portland region in terms of income and employment, business and tax revenues and capital investments.

This report assesses the equity impacts of the Port of Portland in terms of wages and levels of racial, ethnic and gender inclusion for each of the Port's facilities. This includes the activities over which the Port has some control – the **direct** economic activities, as well as the **indirect** industries that support and supply the direct activity, and the industries that benefit from all the spending that flows from the workers in the direct and indirect industries (**induced impacts**). The equity impacts for employment related to the Port's own terminals (Marine) are reported separately from the employment related to privately owned docks that depend upon the Port's dredging operation (Working Harbor).

This analysis is informational and not evaluative. It seeks to provide insights on the current demographic composition of workers in these sectors and comparisons to the metropolitan area as a whole. For the indirect and induced industries in particular, the Port has no influence over the demographic composition of the labor force or the hiring practices of those businesses. This report simply identifies which of the industries related to different Port activities are performing relative to the metropolitan area as a whole.

Data Sources

Fourth Economy leveraged the following data for this analysis:

1. Primary data collected through a survey on firms at the Port related facilities provided estimates of overall employment by industry.
2. The survey data was used in an IMPLAN model that identified the direct, indirect, and induced impacts for each Port facility.
3. Fourth Economy used the primary data and impact outputs with publicly available data from Lightcast and the Census Quarterly Workforce Indicators (QWI) to estimate the demographic composition of the workforce.

Findings & Recommendations

Diversity

- Direct Employment in the Marine, Working Harbor and Business Parks are more diverse than the metropolitan area. Aviation is less diverse than the metropolitan area.
- Women are underrepresented in all Port related industries compared to their share of employment in the metropolitan area (48 percent). Women are most significantly underrepresented in the Marine and Worker Harbor industries, where women account for only 28 percent of the workforce.

Living Wages

- Port-related industries overall do not pay living wages with two exceptions.
- Aviation provides a living wage for more American Indian or Alaska Native workers than the metro average.
- More Hispanic workers earn a living wage in the Working Harbor industries.

The problems of racial and gender pay gaps are not unique to Portland. Industries vary widely in diversity with different races, ethnicities and sexes concentrated in certain industries. Across the United States, workers are struggling to earn living wages. In 2021, the living wage in the United States was \$100,499 per year in 2021 before taxes combined for a family of four (two working adults, two children).¹ Statistics on how many workers in the United States earn a living wage are not readily available, however a recent reported noted that “...in nearly all U.S. counties, a typical worker’s wage is less than what would be considered a living wage for one adult with two children for the area.”²

¹ Glasmeier, A. K. (2023, February 1). *NEW DATA POSTED: 2023 Living Wage Calculator*. <https://livingwage.mit.edu>. Accessed September 25, 2023. Available from <https://livingwage.mit.edu/articles/103-new-data-posted-2023-living-wage-calculator>.

² University of Wisconsin Population Health Institute. *County Health Rankings National Findings 2022*. Accessed September 25, 2023. Available from <https://www.countyhealthrankings.org/reports/2022-county-health-rankings-national-findings-report>.

Benchmarks for the Metropolitan Area

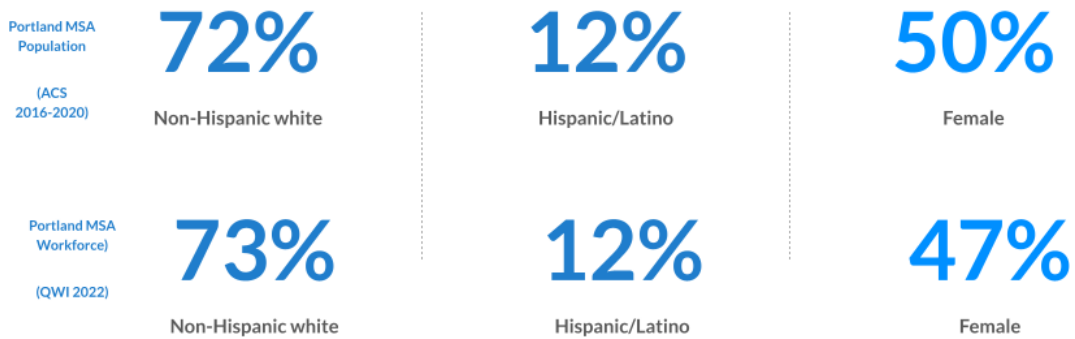
These first two charts exhibit the Portland Metropolitan Statistical Area (MSA) population by race and ethnicity. These total population figures are then compared to the MSA's workforce. This comparison aims to show how the general population aligns with the local labor market in terms of demographic breakdown and representation. For the purposes of this analysis, we utilize the Portland–Vancouver–Hillsboro, OR–WA MSA.

Participation by Race, Ethnicity and Sex for all Industries - Portland MSA

Benchmarks

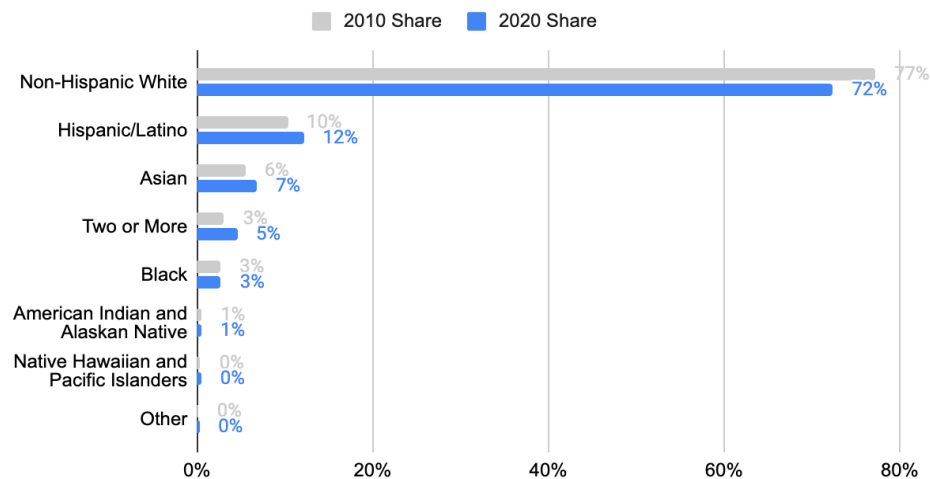
What is the baseline for the Portland labor market? Do we use the population numbers, the workforce numbers, or both?

Note: Workforce data includes OR and WA portions of the MSA.



Note: The census reports data about the sex of each person to create statistics about males and females and to present data, such as employment and wages by sex. The data is not reported by gender, so we are limited to reporting data by sex.

Portland Population by Race & Ethnicity



Source: Census ACS 2016-2020 & 2006-2010 for the Portland MSA (OR + WA)

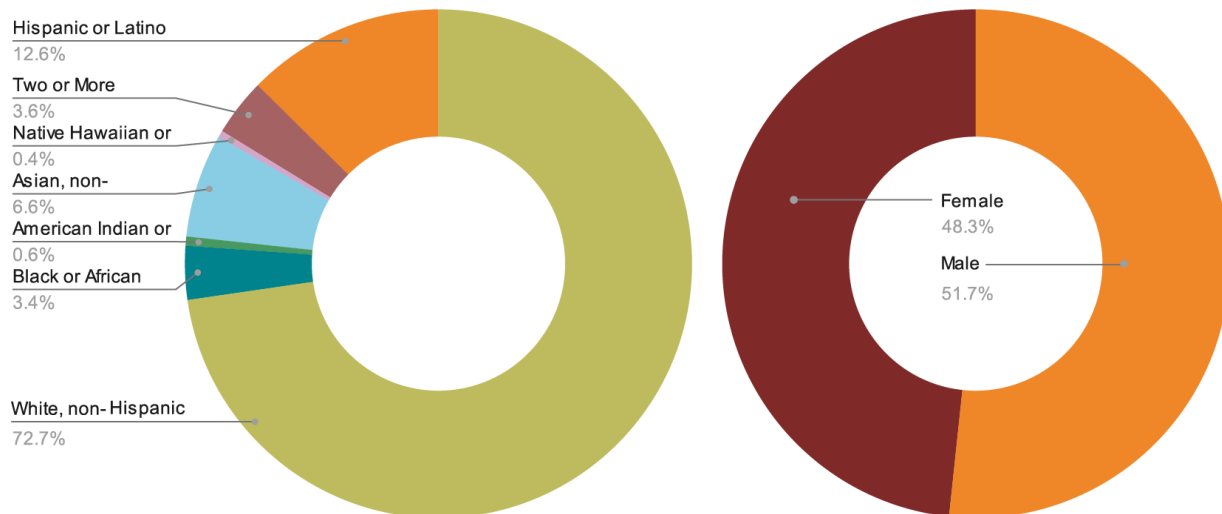
The demographic composition in the Portland MSA has shifted since 2010. The Non-Hispanic White population share has declined the most but remains the largest demographic, with 72% of the total.

Workforce by Race/Ethnicity

The shares of the metropolitan workforce by race and ethnicity generally align with their population shares. One exception is that workers of two or more races are underrepresented in the workforce at 3.6%, compared to 5% of the population.

Workforce by Sex

Women account for 48% of the workforce, slightly more than their share of the metro population at 45%.

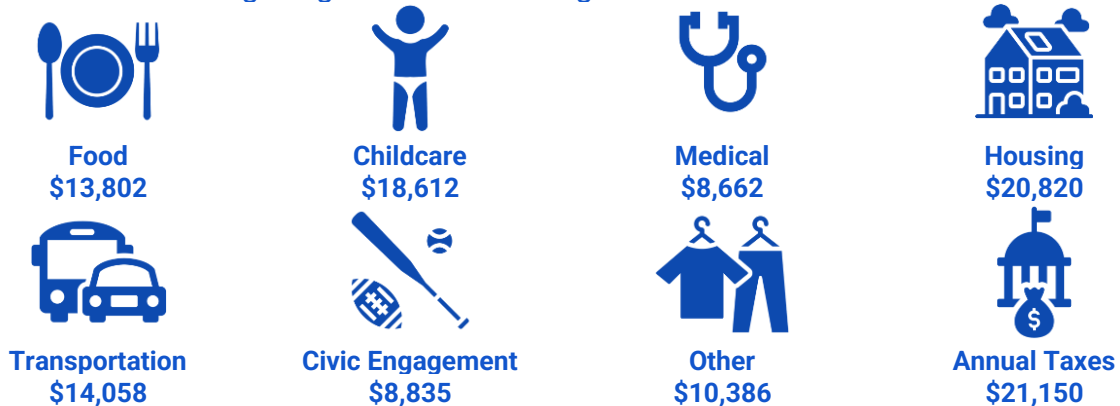


Source: Lightcast, 2022. Data for the Portland MSA (OR+WA)

Living Wage

A living wage revolves around the concept that individuals should earn enough income to cover their basic needs and achieve a decent standard of living. This means being able to pay for housing, food, childcare, health care, transportation, and other needs. A living wage not only helps people meet their needs now, but also to plan and save for the future. Living wages also provide an economic stimulus from the spending on goods and services from these households. There are alternative measures and methodologies to estimate living wages, but this report uses the definition provided by [MIT's Living Wage Calculation for Portland-Vancouver-Hillsboro, OR](#). To maintain at least a stable population, we use the living wage defined for a four-person household with for 2 working adults with 2 children supports. Based on this threshold, the household needs \$116,456 per year, so each adult must earn \$58,228 per year (\$116,456/2).

Living Wage for Two Working Adults with Two Children



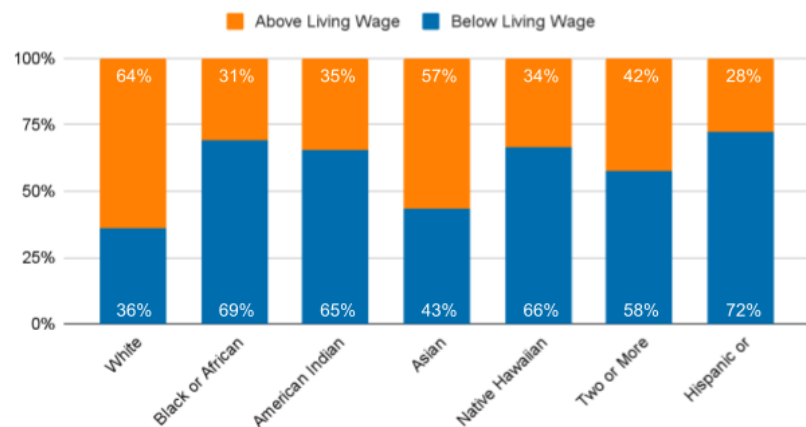
Required annual income (before taxes): \$116,456

Source: [Living Wage Calculation for Portland-Vancouver-Hillsboro, OR](#) (Accessed July 7, 2022)

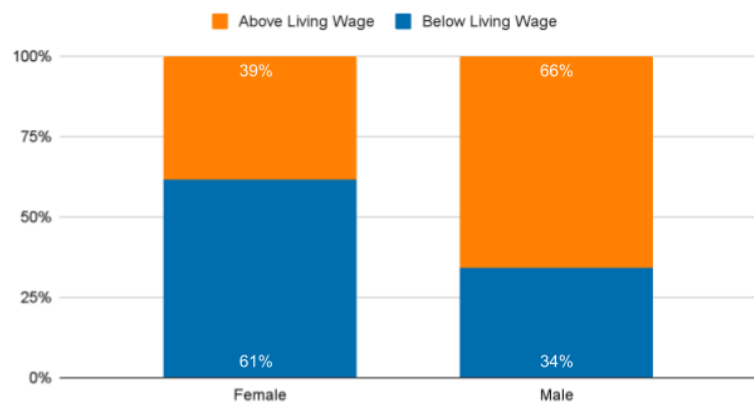
Based on the industry employment and wages for each race and ethnicity for the Portland MSA only 28% of Hispanic workers and 31% of Black workers are in industries with an average wage above a living wage of \$58,228 in the Portland MSA. Non-Hispanic Asian and white workers are the only demographics where more than half are employed in industries with average wages above a living wage. Furthermore, only 39% of female workers are in industries with an average wage above the Living Wage of \$58,228 in the Portland MSA.

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA)

MSA Employment Above or Below Living Wage



MSA Employment Above or Below Living Wage



Equity Impacts in Port of Portland Related Industries

The project team conducted surveys of all Port activities, including airport operations, visitor spending at the airports, capital expenditures, marine activities, and the employment at the Port’s industry parks. The survey data provided the total direct industry employment for our modeling efforts, but it did not provide robust data on the race, ethnicity, gender, or wages for employees.

The workforce equity analysis is therefore based on industry averages for the employment and wages by race, ethnicity and sex reported by the Census Quarterly Workforce Indicators for the Portland–Vancouver–Hillsboro, OR–WA Metropolitan Statistical Area (hereafter the Portland MSA). All data includes the Oregon and Washington portions of the MSA unless otherwise noted.

Direct Industry Employment

Direct industries represent the Port’s direct activities and employment. In general, these direct industries are comparable to MSA workforce averages in terms of diversity. However, they do account for slightly lower living wages. Women are underemployed in direct industries and exhibit lesser rates of living wages than those of indirect industries. Jobs in these industries, in general, are significantly more likely to be held by men.

Direct Industry Employment by Race and Ethnicity

Business Parks have the most diverse workforce for all Port facilities, followed by the Marine workforce. However, these sectors have only a maximum of ~5% more diversity than the MSA average. Hispanic and Pacific Islander employment is notably higher in these portions of the Port’s general operations than MSA averages. Black and American Indian employment totals are relatively constant.

Figure 1: Direct Industry Employment by Race and Ethnicity

Employment by Race and Ethnicity	Metro	Aviation	Marine	Working Harbor	Business Parks
White, non-Hispanic	73%	74%	69%	71%	68%
Black or African American, non-Hispanic	3%	3%	4%	4%	4%
American Indian or Alaska Native, non-Hispanic	1%	1%	1%	1%	1%
Asian, non-Hispanic	7%	4%	5%	5%	8%
Native Hawaiian or Other Pacific Islander, non-Hispanic	0.4%	1%	0.4%	0.4%	1%
Two or More Races, non-Hispanic	4%	4%	5%	4%	4%
Hispanic or Latino	13%	13%	15%	15%	15%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA). Port 2021 is from <https://portofportland.com/demographics>, updated July 1, 2021.

Direct employment in Aviation related industries is comparable to the MSA benchmark, but there are fewer Asian workers (4% of the workforce vs 6.6% of the population) and slightly more non-Hispanic white workers (74% of the workforce vs 73% of the population).

Direct Living Wages by Race and Ethnicity

Overall, Port-related industries do not have an average pay above living wage, which is enough income to cover their basic needs. Aviation provides a living wage for more American Indian or Alaska Native workers than the metro average, and more Hispanic workers earn a living wage with Working Harbor industries.

Figure 2: Direct Living Wages by Race and Ethnicity

Percent Above Living Wage by Race and Ethnicity	Metro	Aviation	Marine	Working Harbor	Business Parks
White, non-Hispanic	64%	42%	45%	53%	51%
Black or African American, non-Hispanic	31%	4%	26%	29%	20%
American Indian or Alaska Native, non-Hispanic	33%	40%	10%	20%	18%
Asian, non-Hispanic	57%	6%	33%	47%	36%
Native Hawaiian or Other Pacific Islander, non-Hispanic	34%	1%	11%	15%	19%
Two or More Races, non-Hispanic	42%	6%	18%	26%	24%
Hispanic or Latino	28%	1%	27%	34%	18%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA) Note: Living Wage of \$58,228 = 50% of \$116,456 for 2 working adults with 2 children for the Portland MSA per [MIT's Living Wage Calculation for Portland-Vancouver-Hillsboro, OR](#)

Direct Industry Employment and Living Wages by Sex

Fewer females are employed across all Port-related industries, and very few female workers earn living wages, as exhibited in Figures 3 and 4. On the contrary, Port industries employ more male workers than the MSA average. Still, fewer make a living wage. Both sexes failing to meet living wage standards from Port industries is to be expected when considering insights seen in Figure 2. Wages for females in the aviation industry are notably low among all direct industries.

Figure 3: Direct Employment by Sex

Employment by Sex	Metro	Aviation	Marine	Working Harbor	Business Parks
Female	48%	42%	28%	28%	42%
Male	52%	58%	72%	72%	58%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA)

Figure 4: Direct Living Wages by Sex

Percent Above Living Wage by Sex	Metro	Aviation	Marine	Working Harbor	Business Parks
Female	39%	4%	20%	22%	33%
Male	66%	36%	47%	57%	47%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA) Note: Living Wage of \$58,228 = 50% of \$116,456 for 2 working adults with 2 children for the Portland MSA per [MIT's Living Wage Calculation for Portland-Vancouver-Hillsboro, OR](#)

Indirect Industry Employment

Indirect industries represent the supply chain supporting Port industries. In general, these indirect industries are not as diverse as the direct Port related industries. However, they do account for slightly higher living wages. Women are underemployed in indirect industries, but also show higher living wages in these sectors than the Port’s direct industries. Jobs, in general, are still significantly more likely to be held by men.

Indirect Industry Employment by Race and Ethnicity

Aviation has the highest rate of diversity among all indirect industries, highlighted by above average employment for Hispanic populations. However, all indirect industries are around or less than the MSA’s average level of workforce diversity. White, non-Hispanic workers represent at or slightly less than 75% of employment across all industries. Employment among Black and Asian workers is relatively constant across all indirect industries.

Figure 5: Indirect Employment by Race and Ethnicity

Employment by Race and Ethnicity	Metro	Aviation	Marine	Working Harbor	Business Parks
White, non-Hispanic	73%	72%	75%	75%	74%
Black or African American, non-Hispanic	3%	3%	3%	3%	4%
American Indian or Alaska Native, non-Hispanic	1%	0%	0%	0%	0%
Asian, non-Hispanic	7%	6%	6%	6%	6%
Native Hawaiian or Other Pacific Islander, non-Hispanic	0.4%	0.3%	0.3%	0.3%	0.4%
Two or More Races, non-Hispanic	4%	3%	3%	3%	3%
Hispanic or Latino	13%	15%	12%	12%	12%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA)

Indirect Living Wages by Race and Ethnicity

Overall, the indirect Port-related industries do not pay living wages for most employees. However, more Non-Hispanic White and Asian workers earn a living wage in the Marine, Working Harbor and Business Park industries than the MSA overall, exhibited in Figure 6. American Indian workers also earn a higher living wage within the Working Harbor industry.

Figure 6: Indirect Living Wages by Race and Ethnicity

Percent Above Living Wage by Race and Ethnicity	Metro	Aviation	Marine	Working Harbor	Business Parks
White, non-Hispanic	64%	45%	68%	68%	64%
Black or African American, non-Hispanic	31%	28%	26%	28%	28%
American Indian or Alaska Native, non-Hispanic	33%	26%	33%	33%	27%
Asian, non-Hispanic	57%	37%	59%	61%	61%
Native Hawaiian or Other Pacific Islander, non-Hispanic	34%	22%	25%	26%	21%
Two or More Races, non-Hispanic	42%	25%	34%	36%	36%
Hispanic or Latino	28%	14%	23%	25%	23%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA) Note: Living Wage of \$58,228 = 50% of \$116,456 for 2 working adults with 2 children for the Portland MSA per [MIT's Living Wage Calculation for Portland-Vancouver-Hillsboro, OR](#)

Indirect Industry Employment and Living Wages by Sex

Fewer females are employed in the Port's indirect industries than direct activities, as seen in Figure 7. However, more female workers in the Marina and Working Harbor indirect industries earn a living wage than the MSA average, exhibited in Figure 8. Living wage employment is also significantly higher in indirect Aviation industries than direct activities in this sector.

Figure 7: Indirect Employment by Sex

Employment by Sex	Metro	Aviation	Marine	Working Harbor	Business Parks
Female	48%	42%	39%	39%	44%
Male	52%	58%	61%	61%	56%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA)

Figure 8: Indirect Living Wage by Sex

Percent Above Living Wage	Metro	Aviation	Marine	Working Harbor	Business Parks
Female	39%	27%	41%	42%	38%
Male	66%	22%	31%	30%	30%

Source: Lightcast 2022 Employment, QWI 2021 Wages. Data for the Portland MSA (OR+WA) Note: Living Wage of \$58,228 = 50% of \$116,456 for 2 working adults with 2 children for the Portland MSA per [MIT's Living Wage Calculation for Portland-Vancouver-Hillsboro, OR](#).

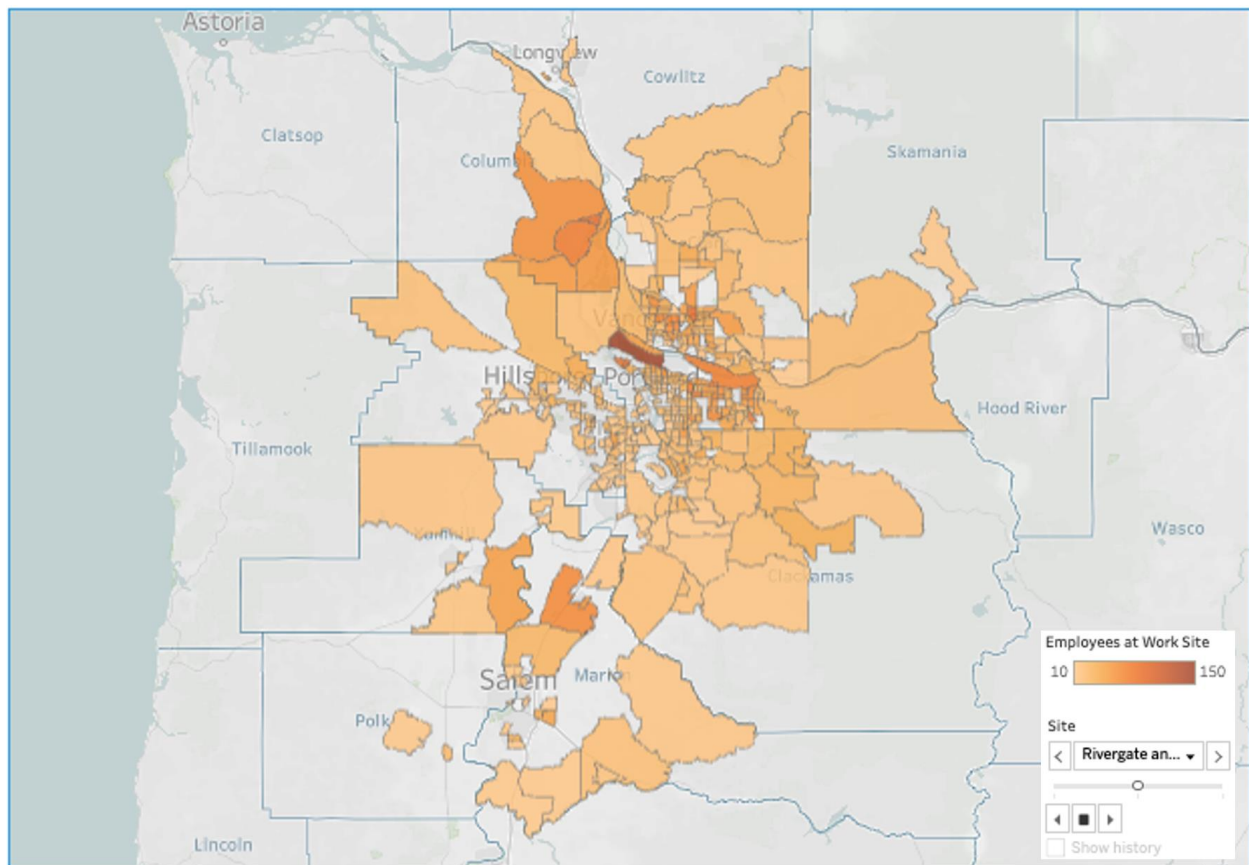
Geographic Analysis

The tract data for the geographic analysis is based on the LEHD Origin-Destination Employment Statistics (LODES) to identify the home census tracts based on the work census tracts. Data on the home census tracts is sourced from [Metro's Regional Barometer](#) that uses American Community Survey 2017 5-year estimate data.

Locations by Facility

The following interactive maps identify the home locations of Port-related workers by work site across the Portland MSA. These maps can be accessed at the source links found below with pop-ups that identify home tracts with summary information. Shown here are the home locations for workers at Rivergate and PDX, which are in the same census tract.

Figure 9: Locations by Facility



See live: <https://public.tableau.com/app/profile/jerry.paytas/viz/DemoGeoPoP2/HomeDemographics?publish=yes>

Tract by Share of Low-Income Residents

Figure 10 shows the concentration of low-income workers found in each of the census tracts analyzed. The volume of workers living in each census tract is also included. Troutdale Reynolds has the highest concentration of workers and an above average rate of low-income residents. Gresham Vista has a small volume of workers living in the area but a high poverty rate.

Figure 10: Tract by Share of Low-Income Residents

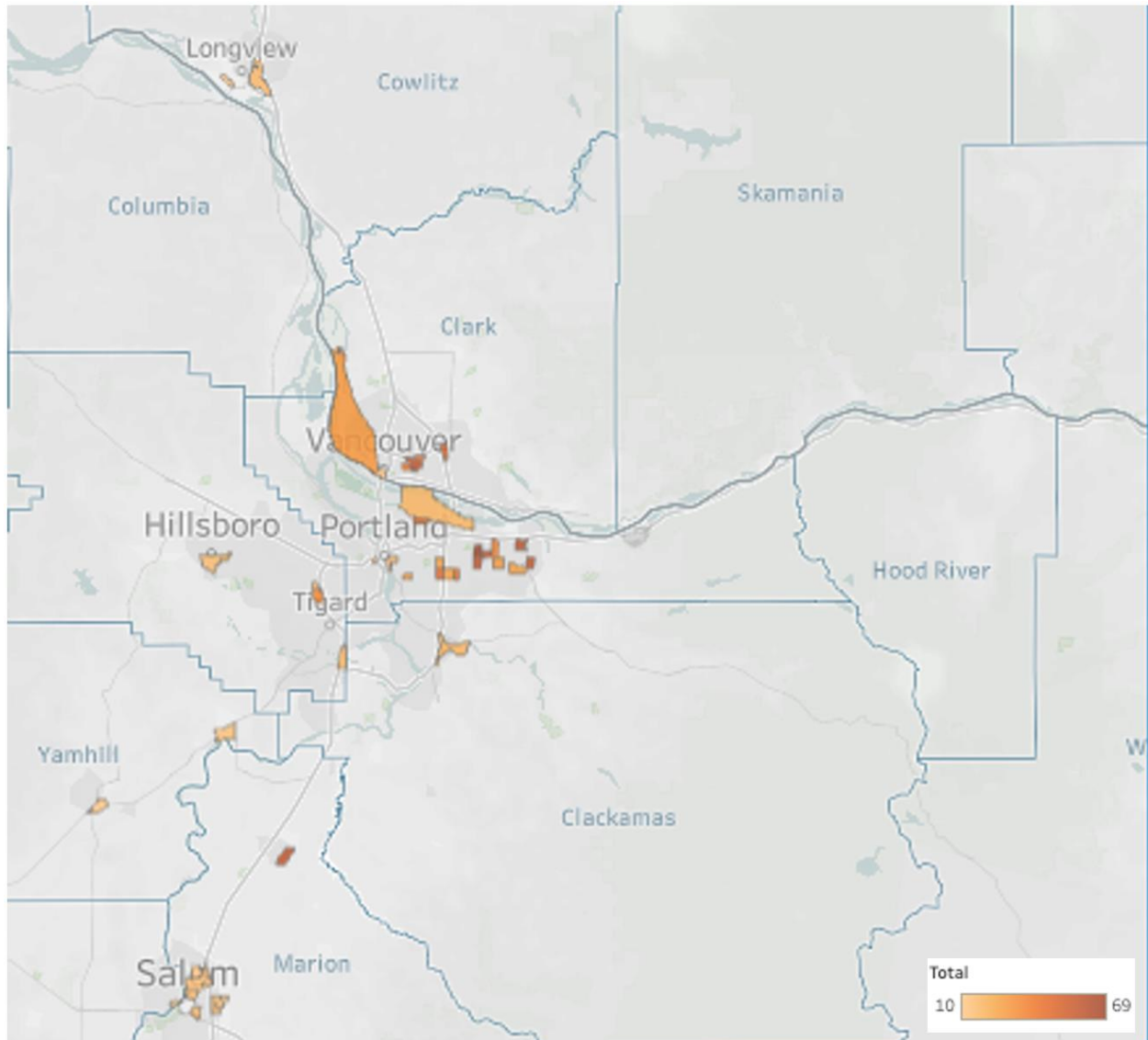
Work Site	Workers Living in Target Tracts	Share
Gresham Vista	218	17%
Hillsboro (Washington County)	165	4%
Rivergate and Portland International	1,005	9%
Troutdale Reynolds	1,831	13%
All Facilities	3,219	10%
Metro Area Population		29%

Source: Census LODS and [Metro's Regional Barometer](#). Analysis of home census tracts for workers employed in Port related tracts.

Workers Living in Tracts with at Least 50% Low-Income Residents: Rivergate and PDX

This map displays the home locations of Port-related workers across the Portland MSA, where the home census tract has at 50% of the residents that are low-income. Low-Income tracts are those with incomes equal to or less than 200% of the Federal Poverty Level, according to [Metro's Regional Barometer](#) based American Community Survey 2017 5-year estimate data. Shown here are the home locations for Rivergate and PDX, which are in the same census tract. The interactive maps allow the user to view different locations.

Figure 11: Workers Living in Tracts with at Least 50% Low-Income Residents



See live: <https://public.tableau.com/app/profile/jerry.paytas/viz/DemoGeoPoP2/HomeDemographics?publish=yes>

Tract by Share of Limited English Speakers

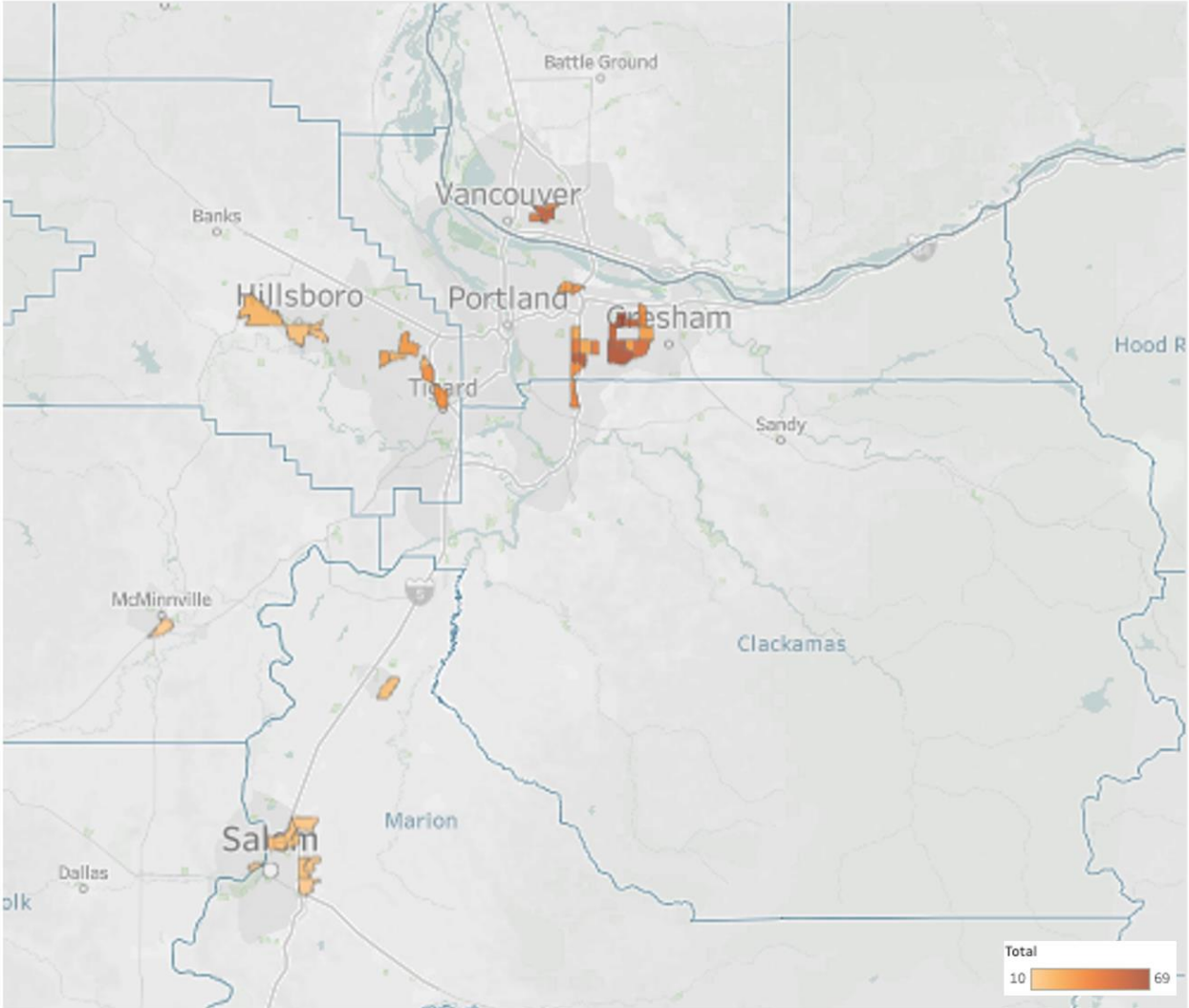
Figure 12: Tract by Share of Limited English Speakers

Work Site	Workers Living in Target Tracts	Share
Hillsboro (Washington County)	52	1.1%
Rivergate and Portland International	79	0.7%
Troutdale Reynolds	73	0.5%
All Facilities	204	0%
Metro Area Population		7%

Source: Census LODS and [Metro's Regional Barometer](#). Analysis of home census tracts for workers employed in Port related tracts.

Workers Living in Tracts with at Least 15% Limited English Proficiency

Figure 13: Workers Living in Tracts with at Least 15 Limited English Proficiency



See live: <https://public.tableau.com/app/profile/jerry.paytas/viz/DemoGeoPoP2/HomeDemographics?publish=yes>

Tract by People of Color and Low-Income

Figure 14: Workers Living in Tracts with at least 50% People of Color

Work Site	Workers Living in Target Tracts	Share
Gresham Vista	58	5%
Hillsboro (Washington County)	320	7%
Rivergate and Portland International	720	6%
Troutdale Reynolds	1,004	7%
Grand Total	2,102	7%
Metro Area Population		26%

Source: Census LODS and [Metro's Regional Barometer](#). Analysis of home census tracts for workers employed in Port related tracts.

Figure 15: Workers Living in Tracts with at least 50% People of Color and 50% Low-Income

Work Site	Workers Living in Target Tracts	Share
Gresham Vista	48	4%
Hillsboro (Washington County)	103	2%
Rivergate and Portland International	316	3%
Troutdale Reynolds	587	4%
Grand Total	1,054	3%
Metro Area Population		3%

Source: Census LODS and [Metro's Regional Barometer](#). Analysis of home census tracts for workers employed in Port related tracts.

Occupation Analysis

This analysis delves specifically into Port-related Aviation, Working Harbor, and Business Park activities and the sub-sectors that comprise employment in these occupations. Data seen across these industries reinforces the previous insights of this analysis: most occupations do not provide living wages, and those that do are often held by white men. In most industries, only a handful of jobs provide material opportunities for socioeconomic mobility to workers. These jobs see less diversity, considering both race and gender.

Employment in Direct Aviation Occupations

In Figure 16, the wages for Air Transportation are distorted by high wages in a few specific male-dominated occupations – more detail is provided in the following figures. Highlighted cells show occupations that have an employment share equal to or greater than the MSA average. Industries where the Median Annual Earnings are above a living wage are in bold. Black, American Indian, Asian, Native Hawaiian, and Hispanic workers are above MSA average in some, if not all, occupations.

Figure 16: Employment in Direct Aviation Occupations

SOC	Description	Direct Aviation Employment	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino	Males	Females	Median Annual Earnings
53-2000	Air Transportation Workers	1,476	85.5%	1.6%	0.2%	2.7%	1.1%	4.0%	4.7%	67.6%	32.4%	\$92,706
53-7000	Material Moving Workers	1,361	65.5%	5.4%	0.9%	5.3%	1.0%	3.5%	18.3%	69.7%	30.3%	\$36,953
43-4000	Information and Record Clerks	745	71.9%	4.2%	0.9%	5.3%	0.6%	3.6%	13.4%	23.3%	76.7%	\$39,572
53-3000	Motor Vehicle Operators	678	74.0%	4.7%	0.9%	3.3%	0.7%	3.0%	13.5%	88.0%	12.0%	\$47,002
43-5000	Material Recording, Scheduling, Dispatching, and Distributing Workers	527	70.5%	3.5%	0.5%	7.2%	0.9%	4.0%	13.4%	57.2%	42.8%	\$43,791
49-3000	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	507	78.5%	1.7%	0.8%	3.0%	0.6%	2.7%	12.6%	97.8%	2.2%	\$50,096
37-2000	Building Cleaning and Pest Control Workers	410	56.3%	5.3%	1.0%	5.2%	0.7%	2.8%	28.8%	47.4%	52.6%	\$32,538
35-3000	Food and Beverage Serving Workers	354	68.7%	3.0%	0.7%	8.4%	0.4%	4.1%	14.6%	34.3%	65.7%	\$30,597
55-9000	Military-only occupations	332	60.7%	3.6%	5.5%	1.7%	0.6%	14.7%	13.3%	84.8%	15.2%	\$33,945
	Metro Average		72.9%	3.2%	0.7%	7.1%	0.5%	3.2%	12.4%	51.7%	48.3%	

Source: IMPLAN occupation estimates and occupation demographics from Lightcast 2022 Occupation data, version 2023.2

Air Transportation Workers

Air Transportation occupations represent the highest wages among all aviation jobs. The highest wages (\$113,000) are for Aircraft Pilots and Flight Engineers, an occupation that supports living wages across all races. These jobs are nearly 90% white and 92% male. Flight attendants, which are 80% white and 84% female, earn less than half of that (\$55,000). Air Traffic Controllers also consistently make a living wage across all races. Highlighted cells show occupations that have an employment share equal to or greater than the MSA average. Industries where the Median Annual Earnings are above a living wage are in bold.

Figure 17: Breakdown of (53-200) Air Transportation Workers

SOC	Description	Direct Aviation Occupations	Races							Sex		Median Annual Earnings
			White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino	Males	Females	
53-2010	Aircraft Pilots and Flight Engineers	1,279	89.7%	0.6%	0.5%	1.4%	0.4%	3.8%	3.6%	92.4%	7.6%	\$113,077
53-2020	Air Traffic Controllers and Airfield Operations Specialists	203	74.5%	2.8%	1.0%	2.1%	1.9%	7.4%	10.3%	77.3%	22.7%	\$91,391
53-2030	Flight Attendants	759	79.9%	3.2%	0.2%	5.8%	1.8%	3.7%	5.3%	15.6%	84.4%	\$55,376
	Metro Average		72.9%	3.2%	0.7%	7.1%	0.5%	3.2%	12.4%	51.7%	48.3%	

Source: IMPLAN occupation estimates and occupation demographics from Lightcast 2022 Occupation data, version 2023.2

Figure 18: Breakdown of 53-200 Air Transportation Workers

SOC	Description	Direct Aviation Occupations	Races							Sex		Median Annual Earnings	Median @ Living Wage
			White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino	Males	Females		
53-2010	Aircraft Pilots and Flight Engineers	1,279	1,147	8	6	18	6	48	47	1,182	97	113,077	Above
53-2020	Air Traffic Controllers and Airfield Operations Specialists	203	151	6	2	4	4	15	21	157	46	91,391	Above
53-2030	Flight Attendants	759	607	24	2	44	14	28	40	119	641	55,376	Below

Source: IMPLAN occupation estimates and occupation demographics from Lightcast 2022 Occupation data, version 2023.2

Direct Working Harbor Occupations

Working Harbor occupations include a variety of marine and manufacturing-related jobs. Among these, Business Operations Specialists stand out for its high wages across all demographics (\$74,950). It is notable that most jobs in this sector are held by females (54.4%). All other occupations fail to meet living wage thresholds. Hispanic, Native Hawaiian, and American Indian workers are employed at a rate above the MSA average in almost all Working Harbor jobs. Highlighted cells show occupations that have an employment share equal to or greater than the MSA average. Industries where the Median Annual Earnings are above a living wage are in bold.

Figure 19: Employment in Direct Marine Occupations

SOC	Description	Direct Aviation Employment	White	Black or African American	American Indian or Alaska Native	Asian	Native Hawaiian or Other Pacific Islander	Two or More Races	Hispanic or Latino	Males	Females	Median Annual Earnings
53-7000	Material Moving Workers	1,137	65.5%	5.4%	0.9%	5.3%	1.0%	3.5%	18.3%	69.7%	30.3%	\$36,953
53-3000	Motor Vehicle Operators	991	74.0%	4.7%	0.9%	3.3%	0.7%	3.0%	13.5%	88.0%	12.0%	\$47,002
51-4000	Metal Workers and Plastic Workers	409	71.8%	2.6%	0.7%	7.5%	0.5%	2.3%	14.5%	87.7%	12.3%	\$46,723
47-2000	Construction Trades Workers	386	71.6%	2.2%	1.0%	1.7%	0.4%	2.3%	20.8%	95.7%	4.3%	\$57,752
51-9000	Other Production Occupations	353	62.2%	4.3%	0.7%	11.3%	0.7%	2.3%	18.4%	69.6%	30.4%	\$41,585
51-2000	Assemblers and Fabricators	285	58.0%	4.3%	0.7%	18.8%	0.7%	2.0%	15.5%	61.8%	38.2%	\$40,730
43-5000	Material Recording, Scheduling, Dispatching, and Distributing Workers	245	70.5%	3.5%	0.5%	7.2%	0.9%	4.0%	13.4%	57.2%	42.8%	\$43,791
13-1000	Business Operations Specialists	225	78.1%	2.8%	0.5%	7.2%	0.3%	3.5%	7.6%	45.6%	54.4%	\$74,590
49-9000	Other Installation, Maintenance, and Repair Occupations	185	77.4%	2.5%	0.8%	3.7%	0.5%	2.7%	12.4%	95.9%	4.1%	\$51,851
	Metro Average		72.9%	3.2%	0.7%	7.1%	0.5%	3.2%	12.4%	51.7%	48.3%	

Source: IMPLAN occupation estimates and occupation demographics from Lightcast 2022 Occupation data, version 2023.2

Direct Business Park Occupations

The highest wages within Business Park occupations are Top Executives and Computer Occupations (\$97,746 and \$95,958), professions that are overwhelmingly held by men (69.5% and 74.4%). In general, more occupations within Business Park activities offer living wages for workers, but these higher-wage jobs are held by a smaller number of workers compared to lower-wage professions. However, these jobs are disproportionately held by men, aside from Business Occupations Specialists. Notably, Retail Sales Workers and Information and Record Clerks are jobs held by a

high share of women (58.3% and 76.7%) while offering some of the industry’s lowest wages (\$32,207 and \$39,572). Highlighted cells show occupations that have an employment share equal to or greater than the MSA average. Industries where the Median Annual Earnings are above a living wage are in bold.

Figure 20: Employment in Direct Business Park Occupations

SOC	Description	Direct Aviation Employment	White	Black or African American	American Indian or Alaska Native	Native			Hispanic or Latino	Males	Females	Median Annual Earnings
						Asian	Hawaiian or Other Pacific Islander	Two or More Races				
53-7000	Material Moving Workers	4,762	65.5%	5.4%	0.9%	5.3%	1.0%	3.5%	18.3%	69.7%	30.3%	\$36,953
53-3000	Motor Vehicle Operators	1,458	74.0%	4.7%	0.9%	3.3%	0.7%	3.0%	13.5%	88.0%	12.0%	\$47,002
13-1000	Business Operations Specialists	779	78.1%	2.8%	0.5%	7.2%	0.3%	3.5%	7.6%	45.6%	54.4%	\$74,590
43-5000	Material Recording, Scheduling, Dispatching, and Inventory Control	638	70.5%	3.5%	0.5%	7.2%	0.9%	4.0%	13.4%	57.2%	42.8%	\$43,791
43-4000	Information and Record Clerks	569	71.9%	4.2%	0.9%	5.3%	0.6%	3.6%	13.4%	23.3%	76.7%	\$39,572
41-2000	Retail Sales Workers	509	71.9%	3.4%	0.8%	6.0%	0.5%	3.7%	13.8%	41.7%	58.3%	\$32,207
41-4000	Sales Representatives, Wholesale and Manufacturing, Except Wholesale and Manufacturing	417	85.7%	1.1%	0.3%	4.5%	0.3%	1.8%	6.4%	73.9%	26.1%	\$69,205
15-1200	Computer Occupations	415	69.5%	2.0%	0.3%	19.3%	0.2%	3.2%	5.6%	74.4%	25.6%	\$95,958
11-1000	Top Executives	394	83.5%	1.5%	0.5%	4.9%	0.3%	2.6%	6.7%	69.5%	30.5%	\$97,746
Total	Metro Average		72.9%	3.2%	0.7%	7.1%	0.5%	3.2%	12.4%	51.7%	48.3%	

Source: IMPLAN occupation estimates and occupation demographics from Lightcast 2022 Occupation data, version 2023.2

Living Wage by Occupation

Occupations associated with Port related occupations pay a living wage to a smaller share of workers than the occupations in the MSA overall. This data is exemplified in Figures 16-19 and aggregated in Figure 20 to exhibit the low rate of jobs that provide these living wages. Data to disaggregate the occupational wages by race, ethnicity, and gender is not available.

Figure 21: Living Wage by Occupation

Number	Metro Occupations	Aviation Occupations	Marine Occupations	Business Parks Occupations
Above Living Wage	455,773	2,639	1,358	4,170
Below Living Wage	784,564	6,668	5,007	12,101
Total	1,240,337	9,307	6,365	16,272

Percent	Metro Occupations	Aviation Occupations	Marine Occupations	Business Parks Occupations
Above Living Wage	36.7%	28.4%	21.3%	25.6%
Below Living Wage	63.3%	71.6%	78.7%	74.4%

Source: IMPLAN occupation estimates and occupation demographics from Lightcast 2022 Occupation data, version 2023.2