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# Appendix I: Occupational Profiles

## Construction and Extraction

Boilermakers  
Brickmasons, blockmasons, and stonemasons  
Carpenters  
Carpet, floor, and tile installers and finishers  
Cement masons, concrete finishers, and terrazzo workers  
Construction and building inspectors  
Construction and equipment operators  
Construction laborers  
Drywall installers, ceiling tile installers, and tapers  
Earth drillers, except oil and gas  
Electricians  
Elevator installers and repairers  
Fence erectors  
First-line supervisors of construction trades and extraction workers  
Glaziers  
Hazardous materials removal workers  
Helpers, construction trades  
Highway maintenance workers  
Insulation workers  
Miscellaneous construction and related workers  
Painters, construction and maintenance  
Paperhangers  
Pipelayers, plumbers, pipefitters, and steamfitters  
Plasterers and stucco masons  
Rail-track laying and maintenance equipment operators  
Reinforcing iron and rebar workers  
Roofers  
Sheet metal workers  
Structural iron and steel workers

# Boilermakers

Total Count: 60

SOC: 47-2011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Boilermakers 47-2011	Construct, assemble, maintain, and repair stationary steam boilers and boiler house auxiliaries. Align structures or plate sections to assemble boiler frame tanks or vats, following blueprints. Work involves use of hand and power tools, plumb bobs, levels, wedges, dogs, or turnbuckles. Assist in testing assembled vessels. Direct cleaning of boilers and boiler furnaces. Inspect and repair boiler fittings, such as safety valves, regulators, automatic-control mechanisms, water columns, and auxiliary machines.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$40,250	\$44,530	\$50,490	\$56,950	\$65,980
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	22
Anticipated growth (%)	11%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

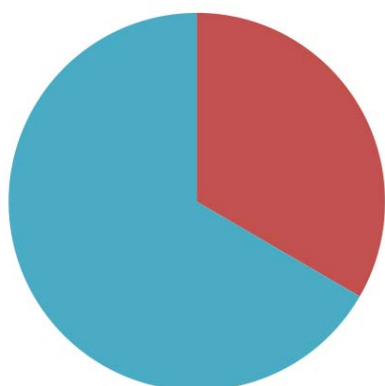
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	36%	73%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Brickmasons, blockmasons, and stonemasons

Total Count: 660

SOC: 47-2020

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/ other requirements
Brickmasons and Blockmasons 47-2021	Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures.	High School Diploma	Post-secondary credential	Apprenticeship
Stonemasons 47-2022	Build stone structures, such as piers, walls, and abutments. Lay walks, curbstones, or special types of masonry for vats, tanks, and floors.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Race and Ethnicity

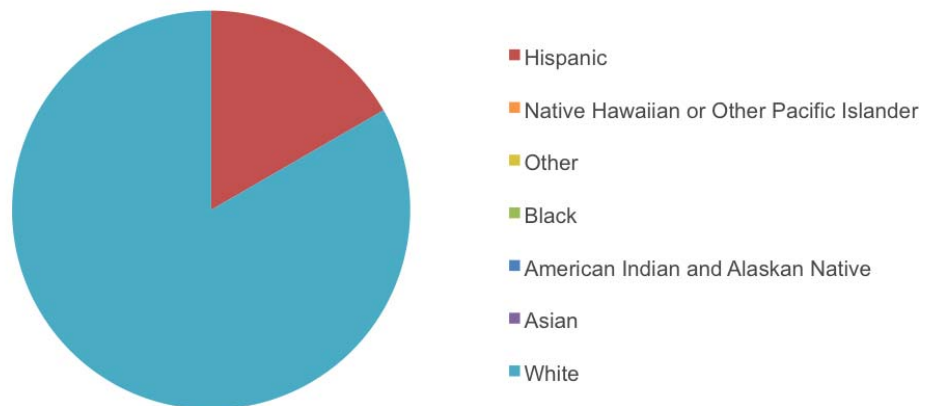
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	16.7%	83.3%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	74%
<i>Not U.S. Citizen</i>	26%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	2%
<i>Not English Language Learner</i>	98%

Source: American Community Survey, PUMS Data

# Brickmasons, blockmasons, and stonemasons

Total Count: 660

SOC: 47-2020

## Annual Wage Distribution

### Brickmasons and Blockmasons

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$41,890	\$54,730	\$64,610	\$70,910	\$74,690
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Stonemasons

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>					
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	170
<i>Anticipated growth (%)</i>	34%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	12
<i>Anticipated growth (%)</i>	52%

Source: Oregon Employment Department and Washington Security Department



# Carpenters

Total Count: 10,420

SOC: 47-2031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Carpenters 47-2031	Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$22,310	\$30,840	\$42,120	\$55,810	\$68,240
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 1839

Anticipated growth (%) 27%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	24%	71%	0%	0%	2%	1%	1%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

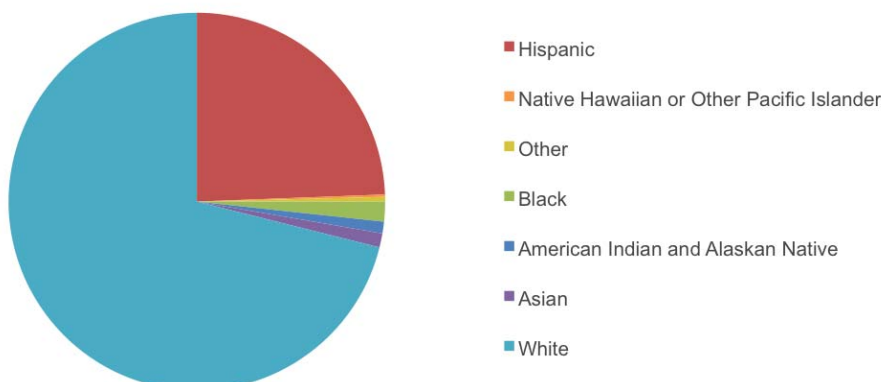
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 76%

Not U.S. Citizen 24%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 14%

Not English Language Learner 86%

Source: American Community Survey, PUMS Data

# Carpet, floor, and tile installers and finishers

Total Count: 1620

SOC: 47-2040

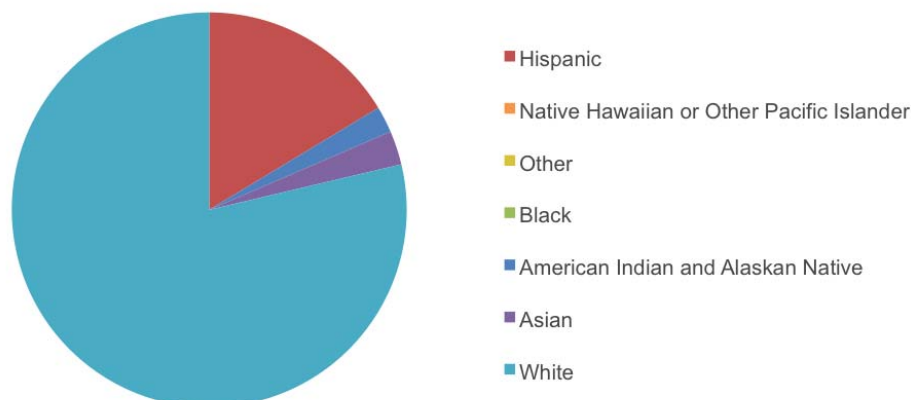
Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Carpet Installers 47-2041	Lay and install carpet from rolls or blocks on floors. Install padding and trim flooring materials.	None	High School Diploma	Short-term
Floor Layers, Except Carpet, Wood, and Hard Tiles 47-2042	Apply blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative coverings to floors.	High School Diploma	N/A	Moderate
Floor Sanders and Finishers 47-2043	Scrape and sand wooden floors to smooth surfaces using floor scraper and floor sanding machine, and apply coats of finish.	N/A	N/A	N/A
Tile and Marble Setters 47-2044	Apply hard tile, marble, and wood tile to walls, floors, ceilings, and roof decks.	None	High School Diploma	Long-term

Source: Oregon Employment Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	16.4%	78.7%	0.0%	0.0%	0.0%	2.2%	2.8%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation



# Carpet, floor, and tile installers and finishers

Total Count: 1620

SOC: 47-2040

## Citizenship

U.S. Citizen	70%
Not U.S. Citizen	30%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	35%
Not English Language Learner	65%

Source: American Community Survey, PUMS Data

## Annual Wage Distribution

### Carpet Installers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$23,380	\$39,730	\$48,150	\$58,700	\$70,610
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Floor Layers, Except Carpet, Wood, and Hard Tiles

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$21,430	\$32,560	\$43,770	\$57,150	\$84,990
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Floor Sanders and Finishers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Tile and Marble Setters

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$24,160	\$26,660	\$30,420	\$38,910	\$45,540
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	121
Anticipated growth (%)	23%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	32
Anticipated growth (%)	43%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	111
Anticipated growth (%)	33%

Source: Oregon Employment Department and Washington Security Department

# Cement masons, concrete finishers, and terrazzo workers

Total Count: 550

SOC: 47-2050

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Cement Masons and Concrete Finishers 47-2051	Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints.	None	High School Diploma	Moderate
Terrazzo Workers and Finishers 47-2053	Apply a mixture of cement, sand, pigment, or marble chips to floors, stairways, and cabinet fixtures to fashion durable and decorative surfaces.	N/A	N/A	N/A

Source: Oregon Employment Department

## Race and Ethnicity

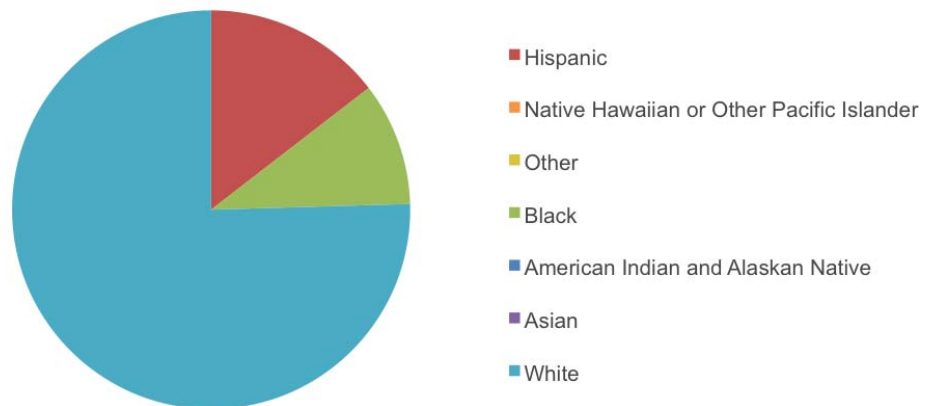
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	14.4%	74.8%	0.0%	0.0%	9.9%	0.0%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	82%
<i>Not U.S. Citizen</i>	18%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	16%
<i>Not English Language Learner</i>	84%

Source: American Community Survey, PUMS Data

# Cement masons, concrete finishers, and terrazzo workers

Total Count: 550

SOC: 47-2050

## Annual Wage Distribution

### Cement Masons and Concrete Finishers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$32,030	\$37,090	\$48,660	\$60,100	\$74,980
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Terrazzo Workers and Finishers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$21,430	\$32,560	\$43,770	\$57,150	\$84,990
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	276
<i>Anticipated growth (%)</i>	39%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	10
<i>Anticipated growth (%)</i>	25%

Source: Oregon Employment Department and Washington Security Department

# Construction and building inspectors

Total Count: 970

SOC: 47-4011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Construction and building inspectors 47-4011	Inspect structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations. Inspections may be general in nature or may be limited to a specific area, such as electrical systems or plumbing.	High School Diploma	Associate's Degree	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$47,990	\$55,850	\$65,910	\$74,720	\$86,820
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 122

Anticipated growth (%) 15%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	5%	96%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

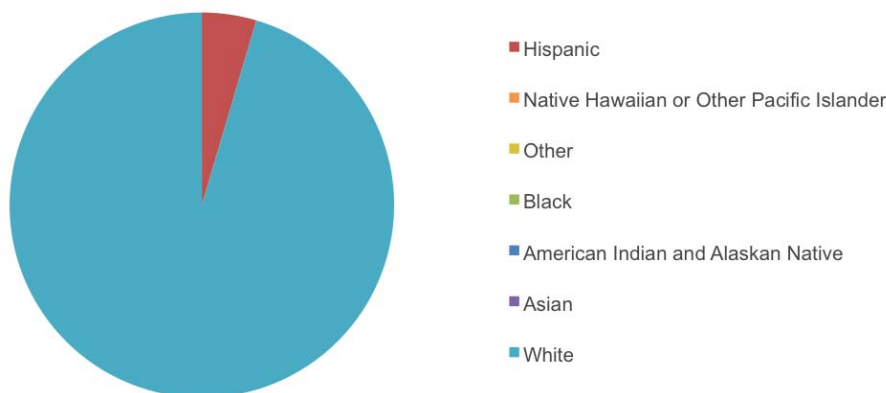
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 99%

Not U.S. Citizen 1%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Construction and equipment operators

Total Count: N/A

SOC: 47-2070

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
<b>Paving, Surface, and Tamping Equipment Operators</b> 47-2071	Operate equipment used for applying concrete, asphalt, or other materials to road beds, parking lots, or airport runways and taxiways, or equipment used for tamping gravel, dirt, or other materials. Includes concrete and asphalt paving machine operators, form tampers, tamping machine operators, and stone spreader operators.	High School Diploma	N/A	Moderate
<b>Pile-Driver Operotors</b> 47-2072	Operate pile drivers mounted on skids, barges, crawler treads, or locomotive cranes to drive pilings for retaining walls, bulkheads, and foundations of structures, such as buildings, bridges, and piers.	High School Diploma	Post-secondary credential	Moderate
<b>Operating Engineers and Other Construction Equipment Operators</b> 47-2073	Operate one or several types of power construction equipment, such as motor graders, bulldozers, scrapers, compressors, pumps, derricks, shovels, tractors, or front-end loaders to excavate, move, and grade earth, erect structures, or pour concrete or other hard surface pavement. May repair and maintain equipment in addition to other duties.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

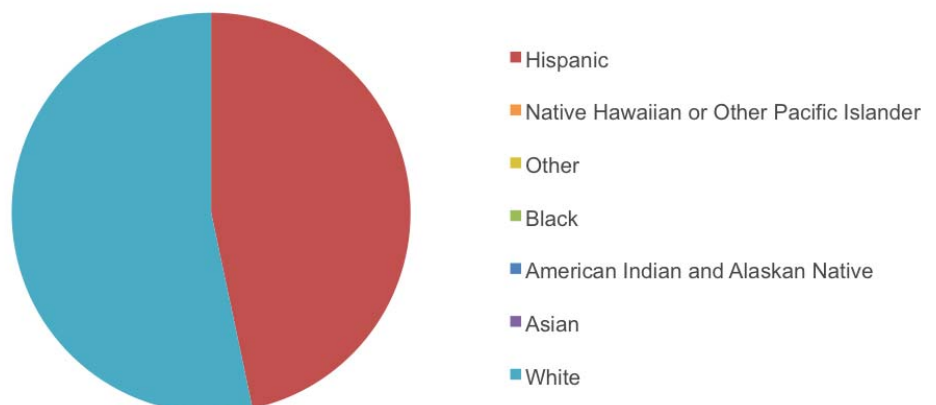
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	50.0%	57.1%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	53%
<i>Not U.S. Citizen</i>	47%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	N/A
<i>Not English Language Learner</i>	N/A

Source: American Community Survey, PUMS Data

# Construction and equipment operators

Total Count: N/A

SOC: 47-2070

## Annual Wage Distribution

### Paving, Surface, and Tamping Equipment Operators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$42,400	\$50,010	\$57,570	\$78,240	\$89,020
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Pile-Driver Operators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Operating Engineers and Other Construction Equipment Operators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$39,190	\$48,320	\$60,210	\$69,940	\$76,130
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	43
<i>Anticipated growth (%)</i>	21%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	13
<i>Anticipated growth (%)</i>	43%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	346
<i>Anticipated growth (%)</i>	23%

Source: Oregon Employment Department and Washington Security Department



# Construction laborers

Total Count: **8595**

SOC: 47-2061

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Construction laborers 47-2061	Perform tasks involving physical labor at construction sites. May operate hand and power tools of all types: air hammers, earth tampers, cement mixers, small mechanical hoists, surveying and measuring equipment, and a variety of other equipment and instruments. May clean and prepare sites, dig trenches, set braces to support the sides of excavations, erect scaffolding, and clean up rubble, debris and other waste materials. May assist other craft workers. Construction laborers who primarily assist a particular craft worker are classified under "Helpers, Construction Trades" (47-3010).	None	High School Diploma	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$23,200	\$27,890	\$38,050	\$50,030	\$57,890
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 1529

Anticipated growth (%) 30%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	25%	67%	1%	1%	5%	2%	1%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

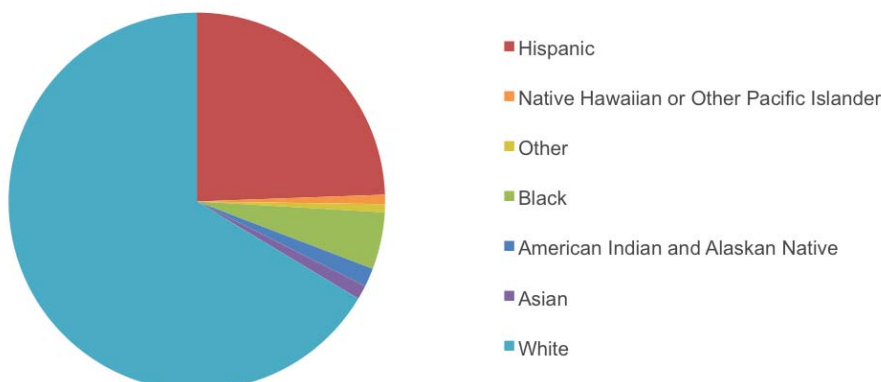
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 78%

Not U.S. Citizen 22%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 24%

Not English Language Learner 76%

Source: American Community Survey, PUMS Data

# Earth drillers, except oil and gas

Total Count: 75

SOC: 47-5021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Earth drillers, except oil and gas 47-5021	Operate a variety of drills such as rotary, churn, and pneumatic to tap sub-surface water and salt deposits, to remove core samples during mineral exploration or soil testing, and to facilitate the use of explosives in mining or construction. May use explosives. Includes horizontal and earth boring machine operators.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$32,010	\$43,140	\$53,960	\$63,180	\$71,120
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	15
Anticipated growth (%)	24%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

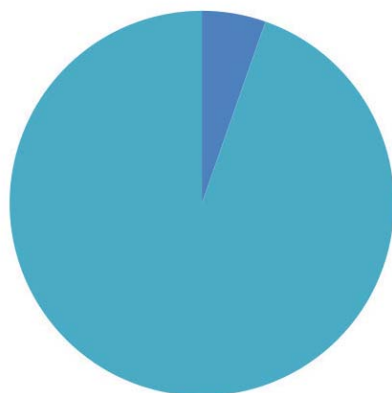
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	93%	0%	0%	0%	5%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Electricians

Total Count: 4505

SOC: 47-2111

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Electricians 47-2111	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$47,790	\$59,820	\$76,920	\$87,050	\$93,140
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 1125

Anticipated growth (%) 22%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	2%	89%	0%	0%	2%	4%	2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

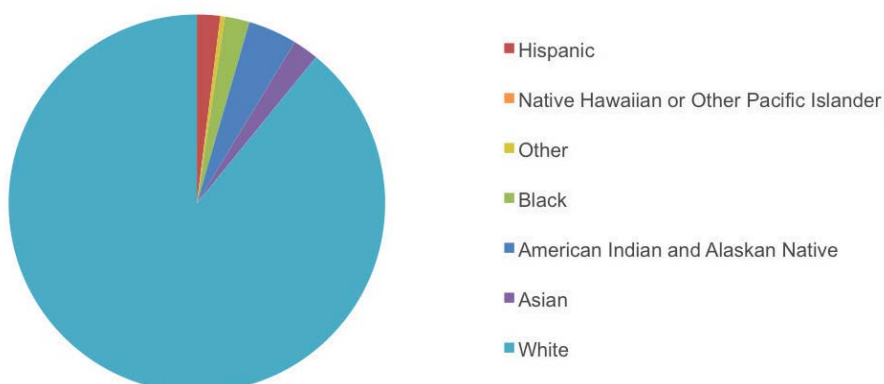
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 98%

Not U.S. Citizen 2%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 3%

Not English Language Learner 97%

Source: American Community Survey, PUMS Data

# Drywall installers, ceiling tile installers, and tapers

Total Count: 1350

SOC: 47-2080

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
<b>Drywall and Ceiling Tile Installers</b> 47-2081	Apply plasterboard or other wallboard to ceilings or interior walls of buildings. Apply or mount acoustical tiles or blocks, strips, or sheets of shock-absorbing materials to ceilings and walls of buildings to reduce or reflect sound. Materials may be of decorative quality. Includes lathers who fasten wooden, metal, or rockboard lath to walls, ceilings or partitions of buildings to provide support base for plaster, fire-proofing, or acoustical material.	None	N/A	Moderate
<b>Tapers</b> 47-2082	Seal joints between plasterboard or other wallboard to prepare wall surface for painting or papering.	None	High School Diploma	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

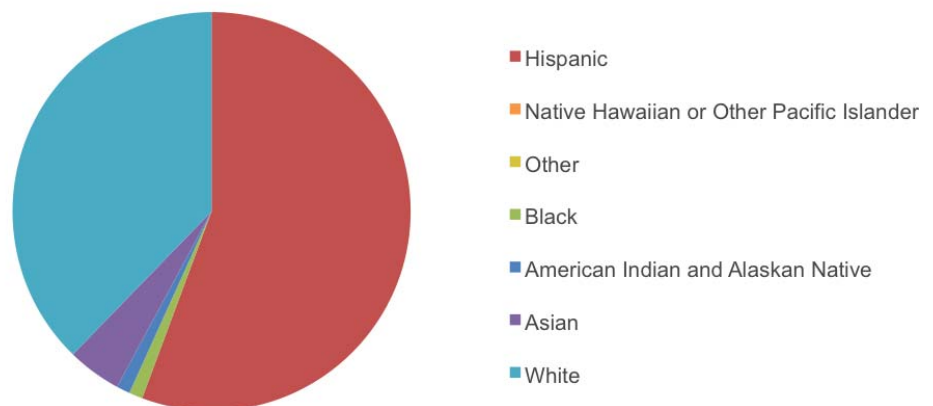
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	56.3%	38.1%	0.0%	0.0%	1.1%	1.1%	4.4%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	57%
<i>Not U.S. Citizen</i>	43%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	55%
<i>Not English Language Learner</i>	45%

Source: American Community Survey, PUMS Data

# Drywall installers, ceiling tile installers, and tapers

Total Count: 1350

SOC: 47-2080

## Annual Wage Distribution

### Drywall and Ceiling Tile Installers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$28,650	\$37,500	\$46,890	\$68,390	\$75,720
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	285
<i>Anticipated growth (%)</i>	29%

Source: Oregon Employment Department and Washington Security Department

### Tapers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$26,410	\$39,550	\$59,250	\$69,340	\$74,840
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	138
<i>Anticipated growth (%)</i>	27%

Source: Oregon Employment Department and Washington Security Department

# Elevator installers and repairers

Total Count: 225

SOC: 47-4021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Elevator installers and repairers 47-4021	Assemble, install, repair, or maintain electric or hydraulic freight or passenger elevators, escalators, or dumbwaiters.	N/A	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

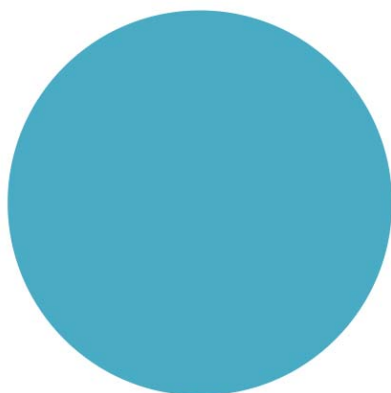
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	96%
Not U.S. Citizen	4%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Fence erectors

Total Count: 365

SOC: 47-4031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Fence erectors 47-4031	Erect and repair fences and fence gates, using hand and power tools.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$21,530	\$25,720	\$34,400	\$42,560	\$46,310
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	93
Anticipated growth (%)	39%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

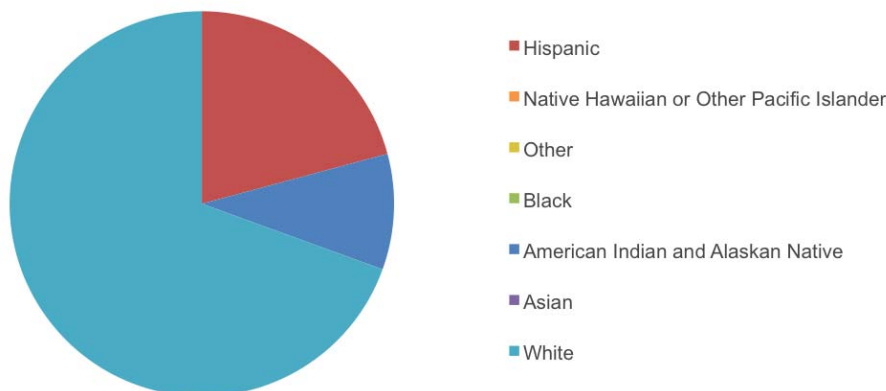
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	21%	69%	0%	0%	0%	10%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	89%
Not U.S. Citizen	11%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	6%
Not English Language Learner	94%

Source: American Community Survey, PUMS Data

# First-line supervisors of construction trades and extraction workers

Total Count: 6515

SOC: 47-1011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
First-line supervisors of construction trades and extraction workers 47-1011	Directly supervise and coordinate activities of construction or extraction workers.	High School Diploma	Post-secondary credential	Five years or more of related work experience is commonly considered necessary for this occupation.

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$33,720	\$49,660	\$64,250	\$83,190	\$100,030
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 1044

Anticipated growth (%) 30%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	91%	1%	1%	0%	1%	1%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

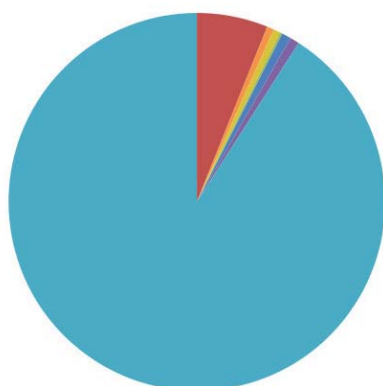
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 95%

Not U.S. Citizen 5%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 4%

Not English Language Learner 96%

Source: American Community Survey, PUMS Data



# Glaziers

Total Count: 265

SOC: 47-2121

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Glaziers 47-2121	Install glass in windows, skylights, store fronts, and display cases, or on surfaces, such as building fronts, interior walls, ceilings, and tabletops.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$44,600	\$51,910	\$60,930	\$69,470	\$74,530
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	96
Anticipated growth (%)	34%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

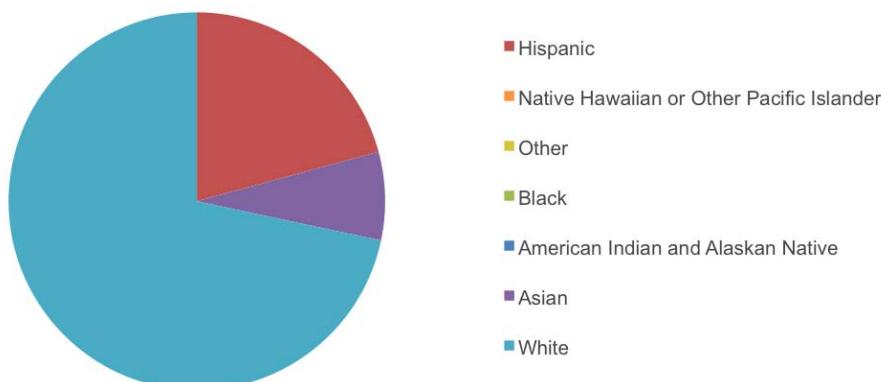
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	21%	73%	0%	0%	0%	0%	8%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	3%
Not English Language Learner	97%

Source: American Community Survey, PUMS Data

# Hazardous materials removal workers

Total Count: 315

SOC: 47-4041

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Hazardous materials removal workers 47-4041	Identify, remove, pack, transport, or dispose of hazardous materials, including asbestos, lead-based paint, waste oil, fuel, transmission fluid, radioactive materials, or contaminated soil. Specialized training and certification in hazardous materials handling or a confined entry permit are generally required. May operate earth-moving equipment or trucks.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$27,680	\$33,970	\$43,070	\$52,740	\$59,200
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 128

Anticipated growth (%) 22%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	13%	78%	0%	0%	10%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

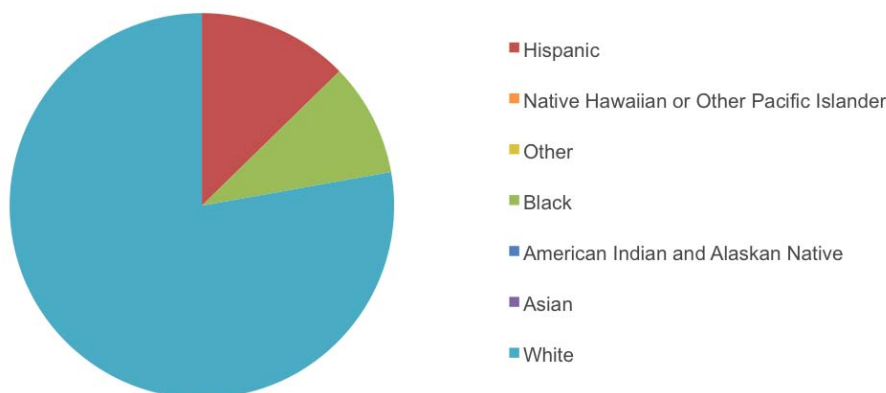
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 95%

Not U.S. Citizen 5%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 13%

Not English Language Learner 87%

Source: American Community Survey, PUMS Data

# Helpers, construction trades

Total Count: 129

SOC: 47-3010

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
<b>Helpers-Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters</b> 47-3011	Help brickmasons, blockmasons, stonemasons, or tile and marble setters by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment	None	High School Diploma	Short-term
<b>Helpers-Carpenters</b> 47-3012	Help carpenters by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	None	High School Diploma	Short-term
<b>Helpers-Electricians</b> 47-3013	Help electricians by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	High School Diploma	N/A	Short-term
<b>Helpers-Painters, Paperhangers, Plasterers, and Stucco Masons</b> 47-3014	Help painters, paperhangers, plasterers, or stucco masons by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	None	High School Diploma	Short-term
<b>Helpers-Pipelayers, Plumbers, Pipefitters, and Steamfitters</b> 47-3015	Help plumbers, pipefitters, steamfitters, or pipelayers by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	High School Diploma	N/A	Short-term
<b>Helpers-Roofers</b> 47-3016	Help roofers by performing duties requiring less skill. Duties include using, supplying or holding materials or tools, and cleaning work area and equipment.	None	High School Diploma	Short-term
<b>Helpers, Construction Trades, All Other</b> 47-3019	All construction trades helpers not listed separately.	None	High School Diploma	Short-term

Source: Oregon Employment Department

# Helpers, construction trades

Total Count: 129

SOC: 47-3010

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	53.8%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	56%
<i>Not U.S. Citizen</i>	44%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

<i>English Language Learner</i>	23%
<i>Not English Language Learner</i>	77%

Source: American Community Survey, PUMS Data

## Annual Wage Distribution and Employment Projections

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile	Job growth (#)	Job growth (%)
<i>Helpers-Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters</i>	\$26,910	\$32,000	\$39,660	\$45,270	\$51,020	13	23%
<i>Helpers-Carpenters</i>	\$18,800	\$19,070	\$25,890	\$33,770	\$37,570	10	24%
<i>Helpers-Electricians</i>	\$22,730	\$35,100	\$44,620	\$55,350	\$55,350	N/A	N/A
<i>Helpers-Painters, Paperhangers, Plasterers, and Stucco Masons</i>	\$24,870	\$27,220	\$31,120	\$34,870	\$37,110	N/A	N/A
<i>Helpers-Pipelayers, Plumbers, Pipefitters, and Steamfitters</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Helpers-Roofers</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Helpers, Construction Trades, All Other</i>	\$19,090	\$20,660	\$27,110	\$36,890	\$56,250	20	23%
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690	N/A	N/A

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

# Highway maintenance workers

Total Count: 605

SOC: 47-4051

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Highway maintenance workers 47-4051	Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement, repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road or plow snow from roadway.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$33,000	\$36,930	\$42,540	\$47,040	\$54,390
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 22

Anticipated growth (%) 5%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	89%	0%	0%	5%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

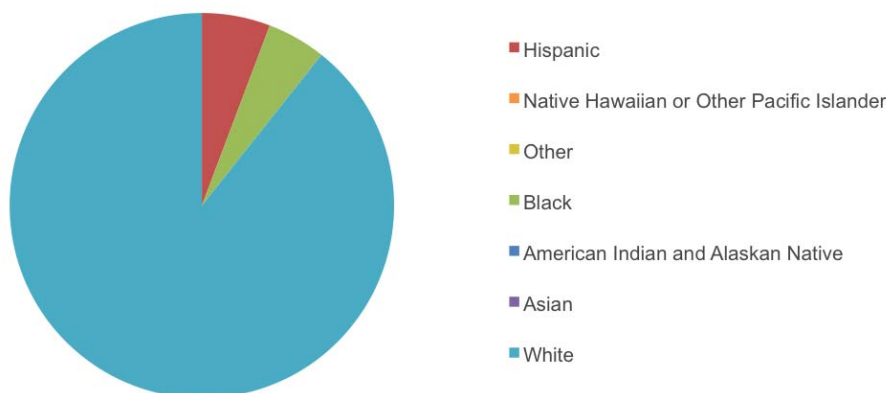
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen N/A

Not U.S. Citizen N/A

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Insulation workers

Total Count: 220

SOC: 47-2130

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/ other requirements
Insulation Workers, Floor, Ceiling, and Wall 47-2131	Line and cover structures with insulating materials. May work with batt, roll, or blown insulation materials.	None	High School Diploma	Short-term
Insulation Workers, Mechanical 47-2132	Apply insulating materials to pipes or ductwork, or other mechanical systems in order to help control and maintain temperature.	High School Diploma	N/A	Apprenticeship

Source: Oregon Employment Department

## Race and Ethnicity

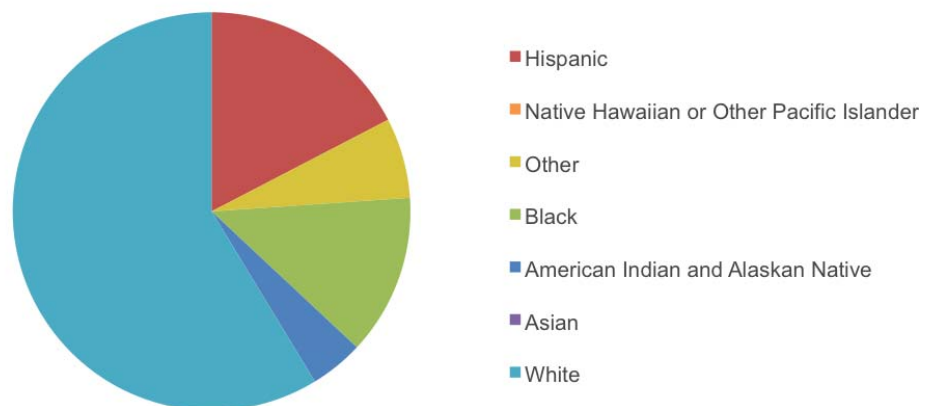
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	17.8%	60.0%	0.0%	6.7%	13.3%	4.4%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	89%
<i>Not U.S. Citizen</i>	11%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	18%
<i>Not English Language Learner</i>	82%

Source: American Community Survey, PUMS Data

# Insulation workers

Total Count: 220

SOC: 47-2130

## Annual Wage Distribution

### Insulation Workers, Floor, Ceiling, and Wall

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$19,020	\$19,630	\$28,470	\$39,390	\$45,930
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	96
<i>Anticipated growth (%)</i>	39%

Source: Oregon Employment Department and Washington Security Department

### Insulation Workers, Mechanical

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>					
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	114
<i>Anticipated growth (%)</i>	52%

Source: Oregon Employment Department and Washington Security Department

# Miscellaneous construction and related workers

Total Count: N/A

SOC: 47-4090

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Segmental Pavers 47-4091	Lay out, cut, and place segmental paving units. Includes installers of bedding and restraining materials for the paving units.	N/A	N/A	N/A
Construction and Related Workers, All Other 47-4099	All construction and related workers not listed separately.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	97%
<i>Not U.S. Citizen</i>	3%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

<i>English Language Learner</i>	N/A
<i>Not English Language Learner</i>	N/A

Source: American Community Survey, PUMS Data



# Miscellaneous construction and related workers

Total Count: N/A

SOC: 47-4090

## Annual Wage Distribution

### Segmental Pavers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

### Construction and Related Workers, All Other

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>					
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	7
<i>Anticipated growth (%)</i>	22%

Source: Oregon Employment Department and Washington Security Department

# Painters, construction and maintenance

Total Count: 3900

SOC: 47-2141

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Painters, construction and maintenance 47-2141	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency.	None	High School Diploma	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$23,310	\$31,320	\$36,610	\$44,300	\$53,590
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 862

Anticipated growth (%) 34%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	32%	62%	1%	0%	1%	2%	3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

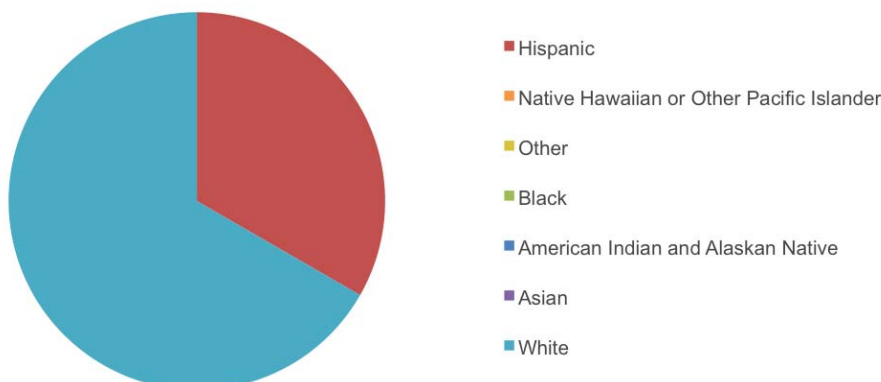
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 68%

Not U.S. Citizen 32%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 20%

Not English Language Learner 80%

Source: American Community Survey, PUMS Data

# Paperhangers

Total Count: 30

SOC: 47-2142

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Paperhangers 47-2142	Cover interior walls or ceilings of rooms with decorative wallpaper or fabric, or attach advertising posters on surfaces such as walls and billboards. May remove old materials or prepare surfaces to be papered.	N/A	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

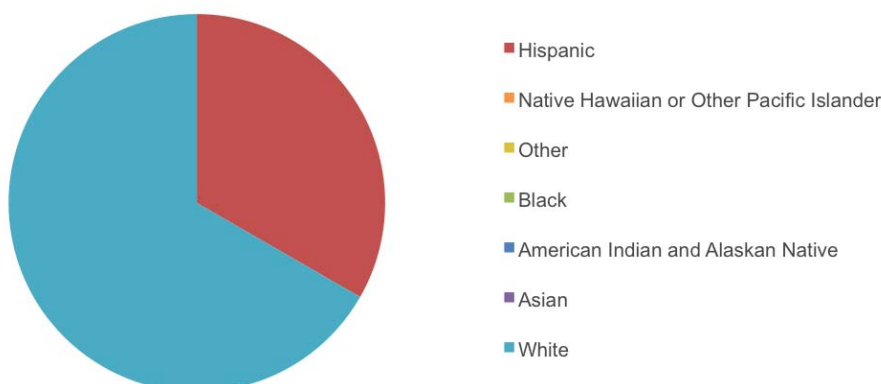
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	33%	67%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	67%
Not U.S. Citizen	33%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Pipelayers, plumbers, pipefitters, and steamfitters

Total Count: 3005

SOC: 47-2150

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Pipelayers 47-2151	Lay pipe for storm or sanitation sewers, drains, and water mains. Perform any combination of the following tasks: grade trenches or culverts, position pipe, or seal joints.	High School Diploma	N/A	Short-term
Plumbers, Pipefitter, and Steamfitters 47-2152	Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinklerfitters.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Race and Ethnicity

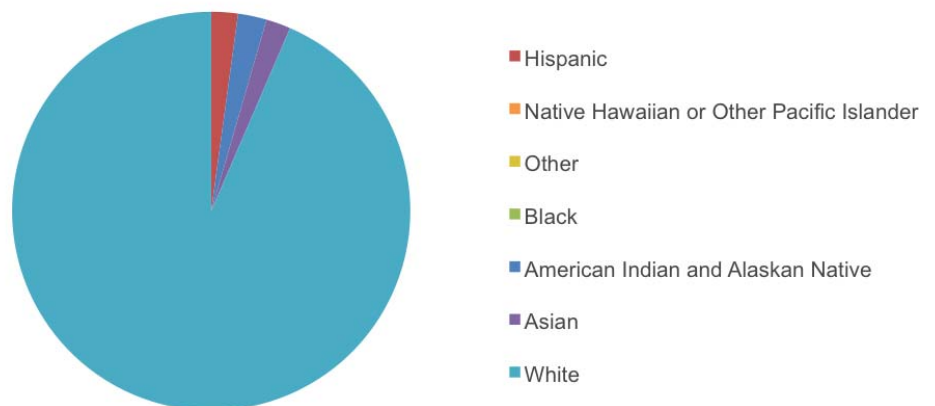
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	2.2%	93.4%	0.0%	0.0%	0.0%	2.3%	2.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	98%
<i>Not U.S. Citizen</i>	2%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	0%
<i>Not English Language Learner</i>	100%

Source: American Community Survey, PUMS Data

# Pipelayers, plumbers, pipefitters, and steamfitters

Total Count: 3005

SOC: 47-2150

## Annual Wage Distribution

### Pipelayers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$38,000	\$42,210	\$48,520	\$56,410	\$62,860
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	44
<i>Anticipated growth (%)</i>	14%

Source: Oregon Employment Department and Washington Security Department

### Plumbers, Pipefitter, and Steamfitters

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$45,750	\$57,060	\$71,850	\$89,180	\$104,860
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	702
<i>Anticipated growth (%)</i>	23%

Source: Oregon Employment Department and Washington Security Department

# Plasterers and stucco masons

Total Count: 150

SOC: 47-2161

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Plasterers and stucco masons 47-2161	Apply interior or exterior plaster, cement, stucco, or similar materials. May also set ornamental plaster.	None	High School Diploma	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$26,110	\$29,790	\$34,490	\$40,490	\$55,210
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	39
Anticipated growth (%)	32%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

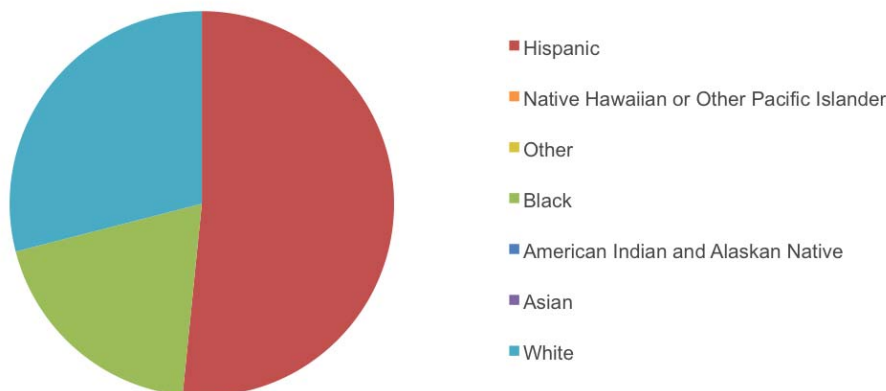
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	52%	29%	0%	0%	19%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	77%
Not U.S. Citizen	23%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	22%
Not English Language Learner	78%

Source: American Community Survey, PUMS Data

# Rail-track laying and maintenance equipment operators

Total Count: 15

SOC: 47-4061

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Rail-track laying and maintenance equipment operators 47-4061	Lay, repair, and maintain track for standard or narrow-gauge railroad equipment used in regular railroad service or in plant yards, quarries, sand and gravel pits, and mines. Includes ballast cleaning machine operators and railroad bed tamping machine operators.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$41,650	\$48,780	\$63,630	\$69,700	\$73,340
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	7
Anticipated growth (%)	9%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

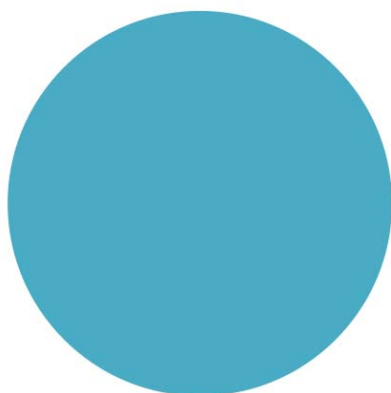
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Reinforcing iron and rebar workers

Total Count: 115

SOC: 47-2171

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Reinforcing iron and rebar workers 47-2171	Position and secure steel bars or mesh in concrete forms in order to reinforce concrete. Use a variety of fasteners, rod-bending machines, blowtorches, and hand tools. Includes rod busters.	N/A	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

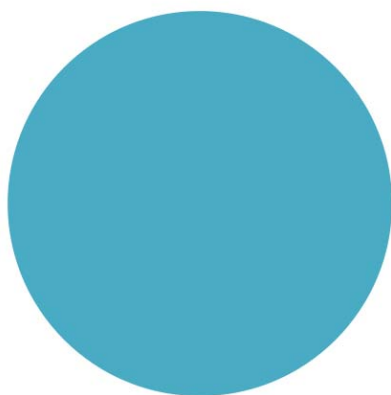
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	19%
Not English Language Learner	81%

Source: American Community Survey, PUMS Data



# Roofers

Total Count: 1410

SOC: 47-2181

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Roofers 47-2181	Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, or related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.	None	High School Diploma	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,410	\$28,960	\$35,850	\$53,360	\$65,190
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 476

Anticipated growth (%) 29%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	56%	44%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

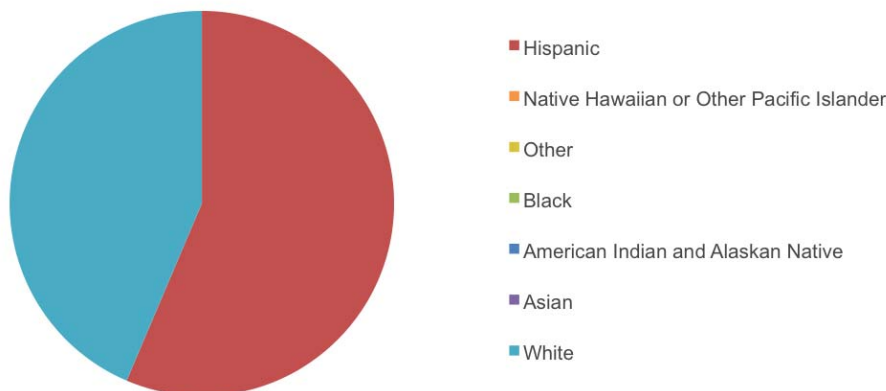
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 55%

Not U.S. Citizen 45%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 39%

Not English Language Learner 61%

Source: American Community Survey, PUMS Data

# Sheet metal workers

Total Count: 1395

SOC: 47-2211

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Sheet metal workers 47-2211	Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; or inspecting, assembling, and smoothing seams and joints of burred surfaces. Includes sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$27,130	\$35,170	\$50,590	\$66,160	\$81,580
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 472

Anticipated growth (%) 21%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	8%	86%	0%	0%	0%	1%	4%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

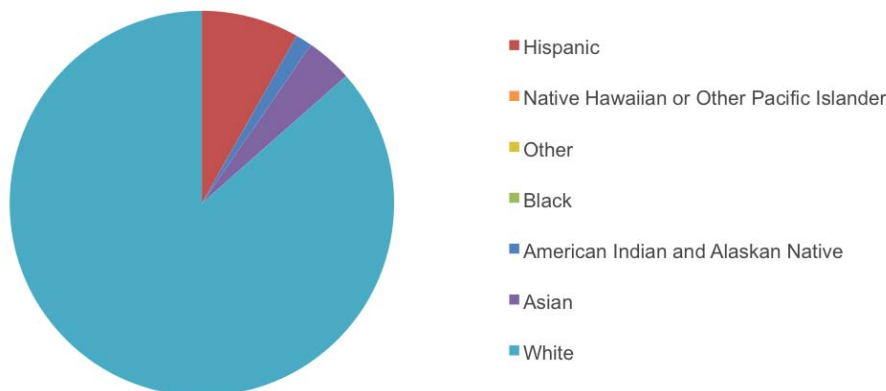
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 90%

Not U.S. Citizen 10%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 14%

Not English Language Learner 86%

Source: American Community Survey, PUMS Data

# Structural iron and steel workers

Total Count: 270

SOC: 47-2221

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Structural iron and steel workers 47-2221	Raise, place, and unite iron or steel girders, columns, and other structural members to form completed structures or structural frameworks. May erect metal storage tanks and assemble prefabricated metal buildings.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$28,870	\$40,000	\$61,970	\$76,690	\$87,630
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 107

Anticipated growth (%) 37%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	78%	0%	0%	13%	6%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

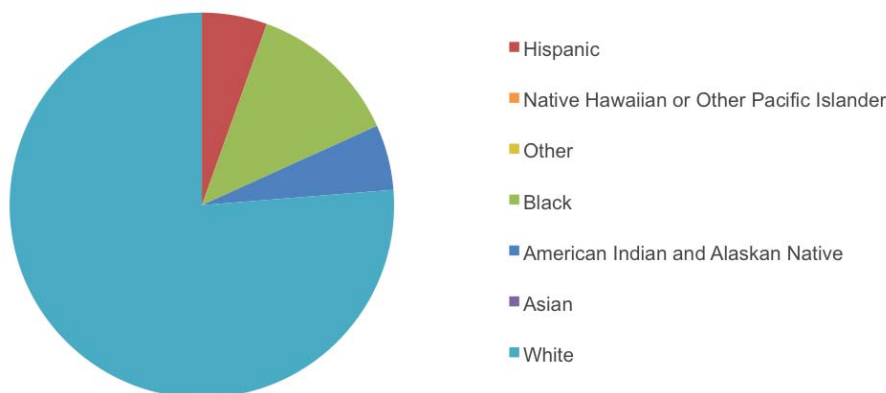
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen N/A

Not U.S. Citizen N/A

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

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# Appendix II: Occupational Profiles

## Healthcare

Dental assistants  
Dental hygienists  
Diagnostic related technologists and technicians  
Emergency medical technicians and paramedics  
Health practitioner support technologists and technicians  
Healthcare practitioners and technical workers, all other  
Healthcare support workers, all other  
Licensed practical and licensed vocational nurses  
Massage therapists  
Medical and clinical laboratory technicians  
Medical assistants  
Medical records and health information technicians  
Medical transcriptionists  
Miscellaneous health technologists and technicians  
Nursing, psychiatric, and home health aides  
Occupational therapy and physical therapist assistants and aides  
Opticians, dispensing  
Pharmacy aides  
Phlebotomists  
Registered nurses  
Respiratory therapists  
Veterinary assistants and laboratory animal caretakers

# Dental assistants

Total Count: 2485

SOC: 31-9091

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Dental assistants 31-9091	Assist dentist, set up equipment, prepare patient for treatment, and keep records.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$31,590	\$34,560	\$39,630	\$45,540	\$51,770
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 217

Anticipated growth (%) 11%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	7%	87%	0%	2%	1%	1%	2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

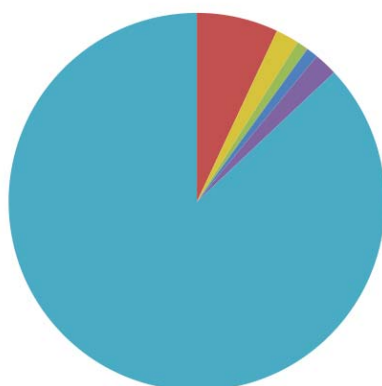
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 95%

Not U.S. Citizen 5%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 5%

Not English Language Learner 95%

Source: American Community Survey, PUMS Data

# Dental hygienists

Total Count: 1440

SOC: 29-2021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Dental hygienists 29-2021	Clean teeth and examine oral areas, head, and neck for signs of oral disease. May educate patients on oral hygiene, take and develop x rays, or apply fluoride or sealants.	Associate's degree	Bachelor's degree	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$65,850	\$73,430	\$83,100	\$90,580	\$95,080
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 473

Anticipated growth (%) 21%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	7%	87%	0%	0%	0%	0%	6%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

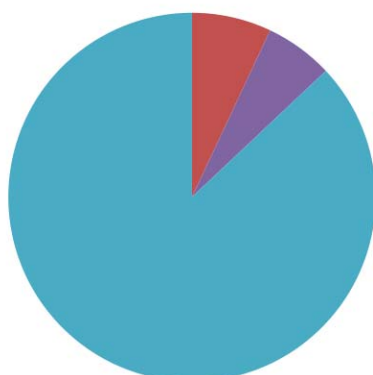
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 98%

Not U.S. Citizen 2%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Diagnostic related technologists and technicians

Total Count: 1765

SOC: 29-2030

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Cardiovascular Technologists and Technicians 29-2031	Conduct tests on pulmonary or cardiovascular systems of patients for diagnostic purposes. May conduct or assist in electrocardiograms, cardiac catheterizations, pulmonary functions, lung capacity, and similar tests. Includes vascular technologists.	Associate's degree	N/A	N/A
Diagnostic Medical Sonographers 29-2032	Produce ultrasonic recordings of internal organs for use by physicians.	Associate's degree	Bachelor's	N/A
Nuclear Medicine Technologists 29-2033	Prepare, administer, and measure radioactive isotopes in therapeutic, diagnostic, and tracer studies using a variety of radioisotope equipment. Prepare stock solutions of radioactive materials and calculate doses to be administered by radiologists. Subject patients to radiation. Execute blood volume, red cell survival, and fat absorption studies following standard laboratory techniques.	Associate's degree	Bachelor's	N/A
Radiologic Technologists 29-2034	Take x-rays and CAT scans or administer nonradioactive materials into patient's blood stream for diagnostic purposes. Includes technologists who specialize in other scanning modalities.	Associate's degree	Bachelor's	N/A
Magnetic Resonance Imaging Technologists 29-2035	Operate Magnetic Resonance Imaging (MRI) scanners. Monitor patient safety and comfort, and view images of area being scanned to ensure quality of pictures. May administer gadolinium contrast dosage intravenously. May interview patient, explain MRI procedures, and position patient on examining table. May enter into the computer data such as patient history, anatomical area to be scanned, orientation specified, and position of entry.	Associate's degree	N/A	N/A

Source: Oregon Employment Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	6.5%	86.1%	0.6%	0.8%	1.4%	1.7%	3.1%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

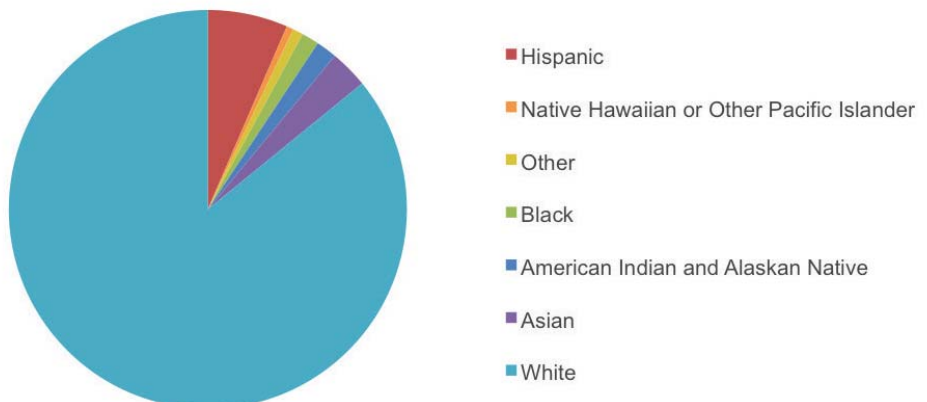
U.S. Citizen	98%
Not U.S. Citizen	2%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	3%
Not English Language Learner	97%

Source: American Community Survey, PUMS Data



# Diagnostic related technologists and technicians

Total Count: 1765

SOC: 29-2030

## Annual Wage Distribution

### Cardiovascular Technologists and Technicians

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$36,310	\$44,950	\$67,920	\$82,810	\$91,960
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Diagnostic Medical Sonographers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$67,480	\$76,580	\$85,300	\$93,670	\$106,000
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Nuclear Medicine Technologists

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$65,020	\$73,710	\$82,980	\$90,210	\$94,590
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Radiologic Technologists

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$50,290	\$56,830	\$66,610	\$75,780	\$87,760
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Magnetic Resonance Imaging Technologists

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$57,430	\$67,880	\$79,770	\$88,540	\$93,790
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

*Anticipated growth* 84

*Anticipated growth (%)* 25%

Source: Oregon Employment Department and Washington Security Department

*Anticipated growth* 125

*Anticipated growth (%)* 39%

Source: Oregon Employment Department and Washington Security Department

*Anticipated growth* 13

*Anticipated growth (%)* 17%

Source: Oregon Employment Department and Washington Security Department

*Anticipated growth* 188

*Anticipated growth (%)* 19%

Source: Oregon Employment Department and Washington Security Department

*Anticipated growth* 30

*Anticipated growth (%)* 17%

Source: Oregon Employment Department and Washington Security Department



# Emergency medical technicians and paramedics

Total Count: 935

SOC: 29-2041

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Emergency medical technicians and paramedics 29-2041	Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$26,540	\$32,100	\$41,060	\$51,200	\$60,480
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 133

Anticipated growth (%) 14%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	97%	0%	0%	0%	0%	3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Health practitioner support technologists and technicians

Total Count: **3285**

SOC: 29-2050

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Dietetic Technicians 29-2051	Assist in the provision of food service and nutritional programs, under the supervision of a dietitian. May plan and produce meals based on established guidelines, teach principles of food and nutrition, or counsel individuals.	High School Diploma	Post-secondary credential	N/A
Pharmacy Technicians 29-2052	Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.	Post-secondary credential	N/A	Moderate
Psychiatric Technicians 29-2053	Care for individuals with mental or emotional conditions or disabilities, following the instructions of physicians or other health practitioners. Monitor patients' physical and emotional well-being and report to medical staff. May participate in rehabilitation and treatment programs, help with personal hygiene, and administer oral or injectable medications.	Post-secondary credential	Associate's degree	Short-term
Respiratory Therapy Technicians 29-2054	Provide respiratory care under the direction of respiratory therapists and physicians.	N/A	N/A	N/A
Surgical Technologists 29-2055	Assist in operations, under the supervision of surgeons, registered nurses, or other surgical personnel. May help set up operating room, prepare and transport patients for surgery, adjust lights and equipment, pass instruments and other supplies to surgeons and surgeon's assistants, hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments.	Post-secondary credential	Associate's degree	N/A
Veterinary Technologists and Technicians 29-2056	Perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. Prepare vaccines and serums for prevention of diseases. Prepare tissue samples, take blood samples, and execute laboratory tests, such as urinalysis and blood counts. Clean and sterilize instruments and materials and maintain equipment and machines. May assist a veterinarian during surgery.	Associate's degree	N/A	N/A
Ophthalmic Medical Technicians 29-2057	Assist ophthalmologists by performing ophthalmic clinical functions. May administer eye exams, administer eye medications, and instruct the patient in care and use of corrective lenses.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

# Health practitioner support technologists and technicians

Total Count: **3285**

SOC: 29-2050

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	5.5%	82.8%	0.8%	0.0%	0.8%	0.6%	9.7%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	95%
<i>Not U.S. Citizen</i>	5%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

<i>English Language Learner</i>	N/A
<i>Not English Language Learner</i>	N/A

Source: American Community Survey, PUMS Data

## Annual Wage Distribution and Employment Projections

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile	Job growth (#)	Job growth (%)
<i>Dietetic Technicians</i>	\$19,070	\$20,620	\$36,610	\$39,830	\$46,050	23	18%
<i>Pharmacy Technicians</i>	\$26,270	\$31,430	\$29,370	\$42,410	\$46,390	620	21%
<i>Psychiatric Technicians</i>	\$21,450	\$23,840	\$49,280	\$36,060	\$44,630	N/A	N/A
<i>Respiratory Therapy Technicians</i>	\$38,970	\$42,690	\$33,450	\$56,400	\$60,990	N/A	
<i>Surgical Technologists</i>	\$23,410	\$27,850	\$45,230	\$37,530	\$42,410	109	24%
<i>Veterinary Technologists and Technicians</i>	\$34,490	\$40,140		\$51,550	\$57,660	179	20%
<i>Ophthalmic Medical Technicians</i>						32	28%
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690	N/A	N/A

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

# Healthcare practitioners and technical workers, all other

Total Count: N/A

SOC: 29-9099

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Healthcare practitioners and technical workers, all other 29-9099	N/A	N/A	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$33,030	\$41,560	\$57,970	\$84,680	\$101,410
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 111

Anticipated growth (%) 17%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen N/A

Not U.S. Citizen N/A

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner N/A

Not English Language Learner N/A

Source: American Community Survey, PUMS Data

# Healthcare support workers, all other

Total Count: **855**

SOC: 31-9099

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Healthcare support workers, all other 31-9099	All healthcare support workers not listed separately	High School Diploma	Post-secondary credential	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,900	\$30,770	\$36,450	\$42,920	\$47,950
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	221
Anticipated growth (%)	18%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

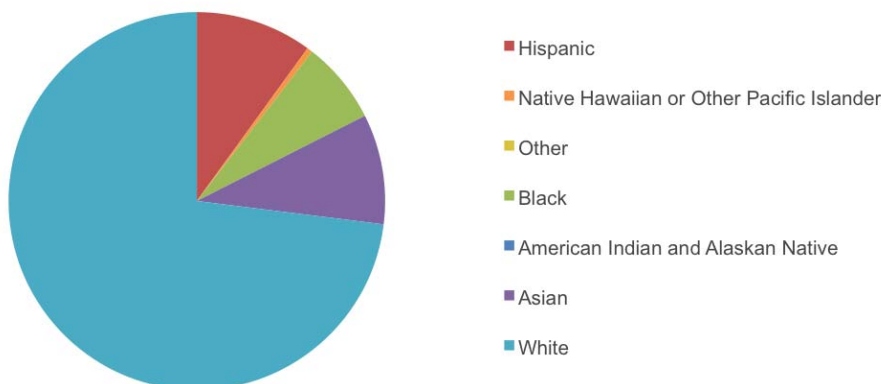
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	10%	73%	0%	0%	7%	0%	9%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Licensed practical and licensed vocational nurses

Total Count: 1525

SOC: 29-2061

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Licensed practical and licensed vocational nurses 29-2061	Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$40,530	\$44,800	\$51,090	\$56,320	\$59,740
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 304

Anticipated growth (%) 19%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	3%	87%	0%	0%	4%	1%	6%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

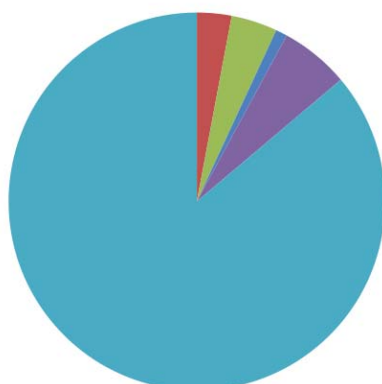
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 94%

Not U.S. Citizen 7%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 1%

Not English Language Learner 99%

Source: American Community Survey, PUMS Data

# Massage therapists

Total Count: 1625

SOC: 31-9011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Massage therapists 31-9011	Perform therapeutic massages of soft tissues and joints. May assist in the assessment of range of motion and muscle strength, or propose client therapy plans.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,680	\$31,310	\$52,910	\$71,520	\$86,740
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 371

Anticipated growth (%) 19%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	3%	91%	0%	0%	2%	3%	1%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

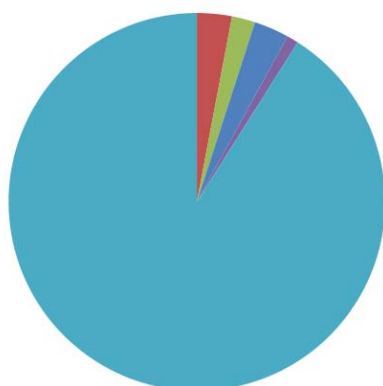
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 99%

Not U.S. Citizen 1%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Medical and clinical laboratory technicians

Total Count: N/A

SOC: 29-2012

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Medical and clinical laboratory technicians 29-2012	Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.	High School Diploma	Post-secondary credential	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$31,900	\$37,640	\$45,590	\$57,000	\$68,800
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	204
Anticipated growth (%)	23%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

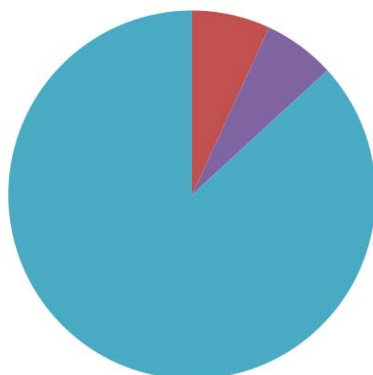
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	7%	87%	0%	0%	0%	0%	6%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data



# Medical assistants

Total Count: **3720**

SOC: 31-9092

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Medical assistants 31-9092	Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$26,540	\$30,840	\$35,020	\$39,910	\$45,300
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 1012

Anticipated growth (%) 27%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	7%	78%	1%	1%	3%	3%	8%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

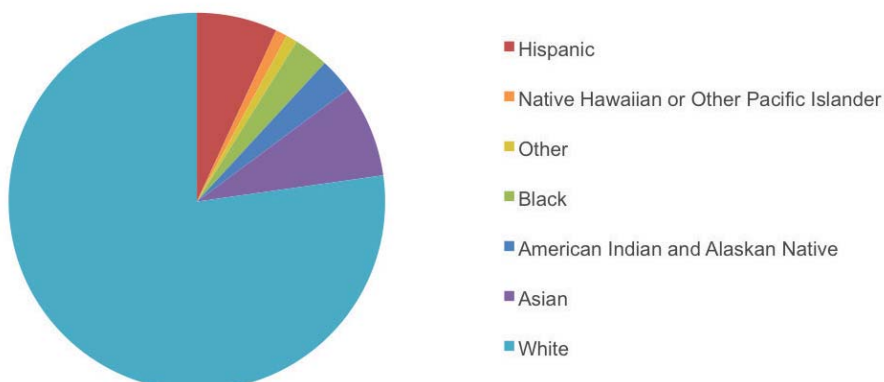
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 97%

Not U.S. Citizen 4%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 2%

Not English Language Learner 98%

Source: American Community Survey, PUMS Data

# Medical records and health information technicians

Total Count: 980

SOC: 29-2071

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Medical records and health information technicians 29-2071	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system.	Post-secondary credential	Associate's degree	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$28,660	\$34,670	\$42,240	\$48,430	\$57,890
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 454

Anticipated growth (%) 23%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	7%	69%	0%	0%	12%	1%	10%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

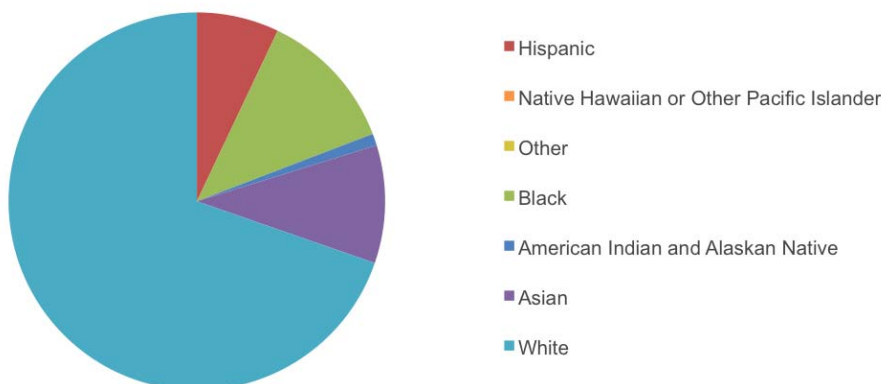
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 3%

Not English Language Learner 97%

Source: American Community Survey, PUMS Data

# Medical transcriptionists

Total Count: 710

SOC: 31-9094

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Medical transcriptionists 31-9094	Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.	Post-secondary credential	Associate's degree	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$26,810	\$34,020	\$41,380	\$46,750	\$53,470
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	83
Anticipated growth (%)	14%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

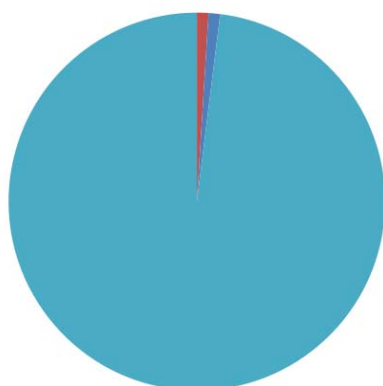
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	1%	99%	0%	0%	0%	1%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	94%
Not U.S. Citizen	6%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Miscellaneous health technologists and technicians

Total Count: N/A

SOC: 29-2090

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Orthotists and Prosthetists 29-2091	Design, measure, fit, and adapt orthopedic braces, appliances or prostheses, such as limbs or facial parts for patients with disabling conditions.	Bachelors	N/A	N/A
Hearing Aid Specialists 29-2092	Select and fit hearing aids for customers. Administer and interpret tests of hearing. Assess hearing instrument efficacy. Take ear impressions and prepare, design, and modify ear molds.	High School Diploma	N/A	N/A
Health Technologists and Technicians, All Other 29-2099	All health technologists and technicians not listed separately.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Race and Ethnicity

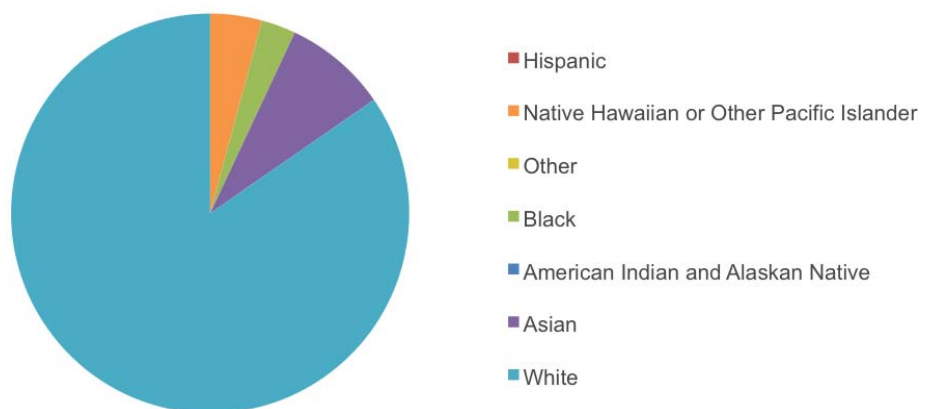
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	0.0%	85.2%	4.2%	0.0%	2.8%	0.0%	8.5%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	8%
Not English Language Learner	92%

Source: American Community Survey, PUMS Data

# Miscellaneous health technologists and technicians

Total Count: N/A

SOC: 29-2090

## Annual Wage Distribution

### Orthotists and Prosthetists

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>					
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

### Hearing Aid Specialists

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$40,520	\$48,460	\$54,910	\$65,230	\$104,400
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	0
<i>Anticipated growth (%)</i>	0%

Source: Oregon Employment Department and Washington Security Department

### Health Technologists and Technicians, All Other

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$29,260	\$35,340	\$44,420	\$54,440	\$64,090
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	32
<i>Anticipated growth (%)</i>	18%

Source: Oregon Employment Department and Washington Security Department

# Nursing, psychiatric, and home health aides

Total Count: 8205

SOC: 31-1010

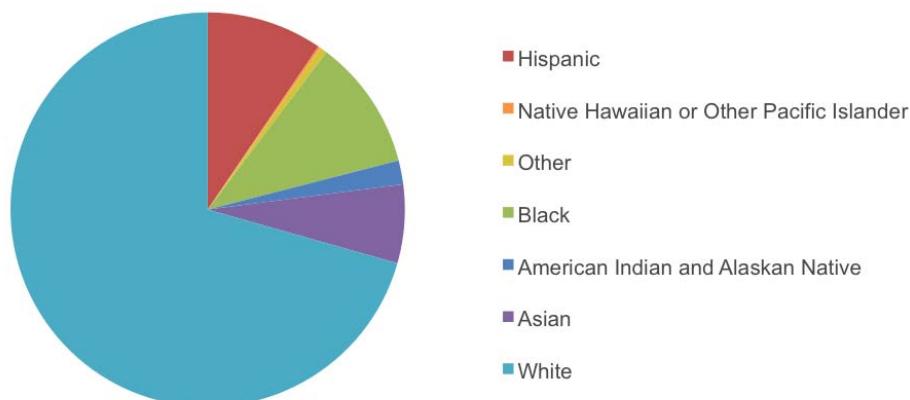
Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Home Health Aides 31-1011	Provide routine individualized healthcare such as changing bandages and dressing wounds, and applying topical medications to the elderly, convalescents, or persons with disabilities at the patient's home or in a care facility. Monitor or report changes in health status. May also provide personal care such as bathing, dressing, and grooming of patient.	None	Post-secondary credential	Short-term
Psychiatric Aides 31-1013	Assist mentally impaired or emotionally disturbed patients, working under direction of nursing and medical staff. May assist with daily living activities, lead patients in educational and recreational activities, or accompany patients to and from examinations and treatments. May restrain violent patients. Includes psychiatric orderlies.	High School Diploma	N/A	Short-term
Nursing Assistants 31-1014	Provide basic patient care under direction of nursing staff. Perform duties such as feed, bathe, dress, groom, or move patients, or change linens. May transfer or transport patients. Includes nursing care attendants, nursing aides, and nursing attendants.	Post-Secondary Credential	N/A	N/A
Orderlies 31-1015	Transport patients to areas such as operating rooms or x-ray rooms using wheelchairs, stretchers, or moveable beds. May maintain stocks of supplies or clean and transport equipment. Psychiatric orderlies are included in "Psychiatric Aides" (31-1013).	N/A	N/A	N/A

Source: Oregon Employment Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	9.5%	70.7%	0.2%	0.6%	10.7%	2.0%	6.5%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation



# Nursing, psychiatric, and home health aides

Total Count: 8205

SOC: 31-1010

## Citizenship

U.S. Citizen	90%
Not U.S. Citizen	10%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

## Annual Wage Distribution

### Home Health Aides

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$19,870	\$21,160	\$23,310	\$28,100	\$34,370
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Psychiatric Aides

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$24,120	\$28,200	\$30,980	\$34,940	\$40,460
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Nursing Assistants

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$21,130	\$23,740	\$27,980	\$33,390	\$37,800
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Orderlies

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$26,090	\$29,470	\$33,110	\$36,270	\$38,560
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	1025
Anticipated growth (%)	31%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	27
Anticipated growth (%)	18%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	1092
Anticipated growth (%)	19%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	30
Anticipated growth (%)	24%

Source: Oregon Employment Department and Washington Security Department

# Occupational therapy and physical therapist assistants and aides

Total Count: 60

SOC: 31-2010

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Occupational Therapy Assistants 31-2011	Assist occupational therapists in providing occupational therapy treatments and procedures. May, in accordance with State laws, assist in development of treatment plans, carry out routine functions, direct activity programs, and document the progress of treatments. Generally requires formal training.	Associate's degree	N/A	Short-term
Occupational Therapy Aides 31-2012	Under close supervision of an occupational therapist or occupational therapy assistant, perform only delegated, selected, or routine tasks in specific situations. These duties include preparing patient and treatment room.	High School Diploma	Post-secondary credential	Short-term

Source: Oregon Employment Department

## Race and Ethnicity

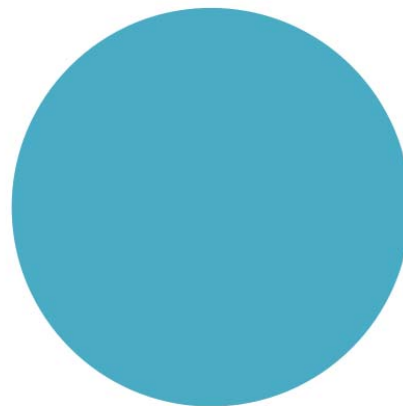
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	83%
<i>Not U.S. Citizen</i>	17%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

<i>English Language Learner</i>	91%
<i>Not English Language Learner</i>	9%

Source: American Community Survey, PUMS Data



# Occupational therapy and physical therapist assistants and aides

Total Count: 60

SOC: 31-2010

## Annual Wage Distribution

### Occupational Therapy Assistants

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$42,260	\$49,260	\$55,020	\$61,010	\$70,660
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Occupational Therapy Aides

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$40,650	\$45,520	\$52,840	\$59,620	\$69,540
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

# Opticians, dispensing

Total Count: 370

SOC: 29-2081

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Opticians, dispensing 29-2081	Design, measure, fit, and adapt lenses and frames for client according to written optical prescription or specification. Assist client with inserting, removing, and caring for contact lenses. Assist client with selecting frames. Measure customer for size of eyeglasses and coordinate frames with facial and eye measurements and optical prescription. Prepare work order for optical laboratory containing instructions for grinding and mounting lenses in frames. Verify exactness of finished lens spectacles. Adjust frame and lens position to fit client. May shape or reshape frames. Includes contact lens opticians.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$23,850	\$27,550	\$33,040	\$38,870	\$50,040
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 145

Anticipated growth (%) 26%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	78%	0%	0%	0%	3%	19%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

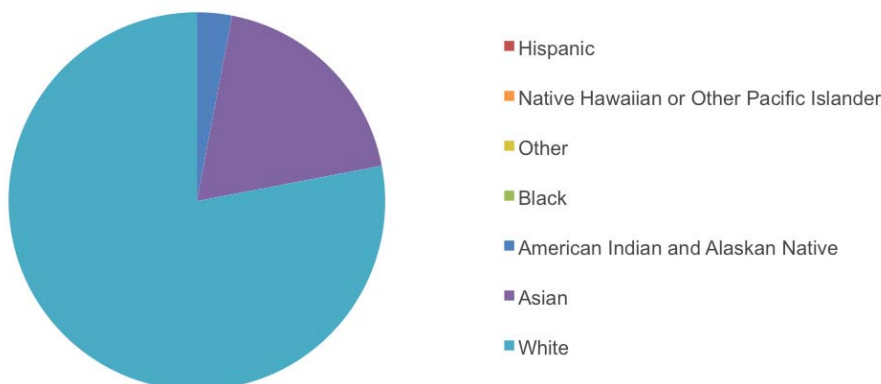
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Pharmacy aides

Total Count: 195

SOC: 31-9095

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Pharmacy aides 31-9095	Record drugs delivered to the pharmacy, store incoming merchandise, and inform the supervisor of stock needs. May operate cash register and accept prescriptions for filling.	N/A	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,600	\$25,150	\$27,950	\$30,880	\$38,670
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	4
Anticipated growth (%)	9%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

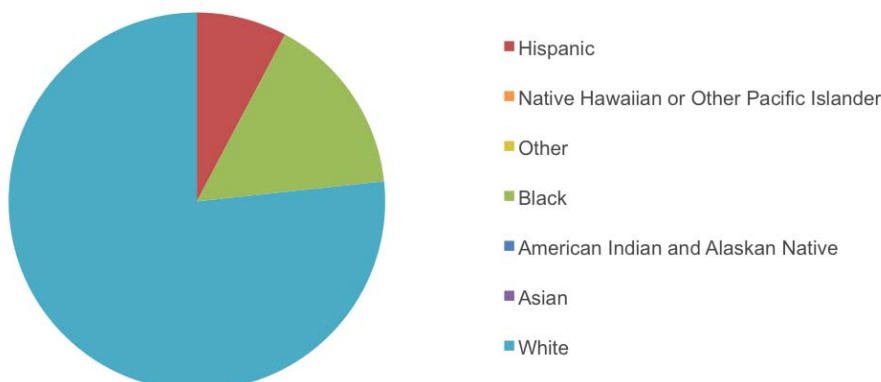
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	8%	79%	0%	0%	16%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	85%
Not U.S. Citizen	15%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Phlebotomists

Total Count: 530

SOC: 31-9097

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Phlebotomists 31-9097	Draw blood for tests, transfusions, donations, or research. May explain the procedure to patients and assist in the recovery of patients with adverse reactions.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$27,750	\$32,250	\$37,520	\$43,160	\$46,700
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 107

Anticipated growth (%) 19%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	5%	78%	0%	3%	0%	11%	3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

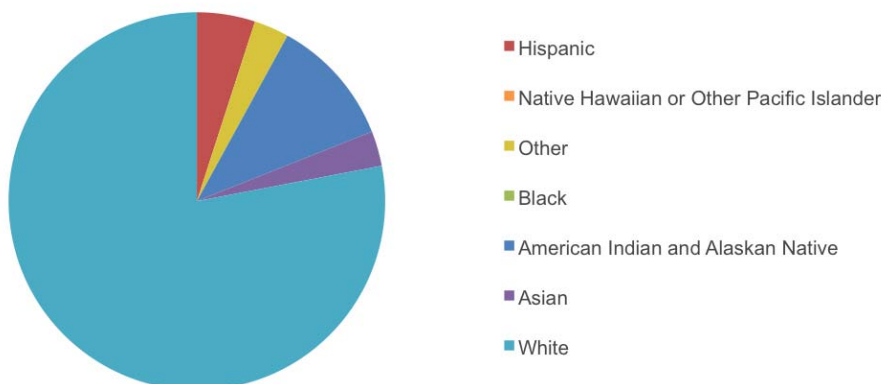
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 96%

Not U.S. Citizen 4%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 23%

Not English Language Learner 77%

Source: American Community Survey, PUMS Data

# Registered nurses

Total Count: 17,985

SOC: 29-1141

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Registered nurses 29-1141	Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes Clinical Nurse Specialists.	Associate's degree	Bachelor's degree	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$60,200	\$71,040	\$83,750	\$95,810	\$110,870
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 3254

Anticipated growth (%) 18%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	3%	88%	0%	0%	2%	1%	6%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

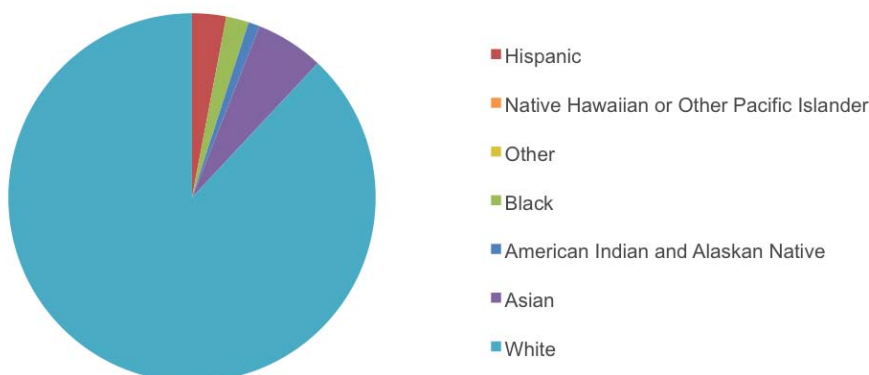
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 97%

Not U.S. Citizen 3%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner N/A

Not English Language Learner N/A

Source: American Community Survey, PUMS Data

# Respiratory therapists

Total Count: 440

SOC: 29-1126

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Respiratory therapists 29-1126	Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.	Associate's degree	Bachelor's degree	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$51,730	\$58,080	\$65,510	\$71,800	\$75,860
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	108
Anticipated growth (%)	18%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

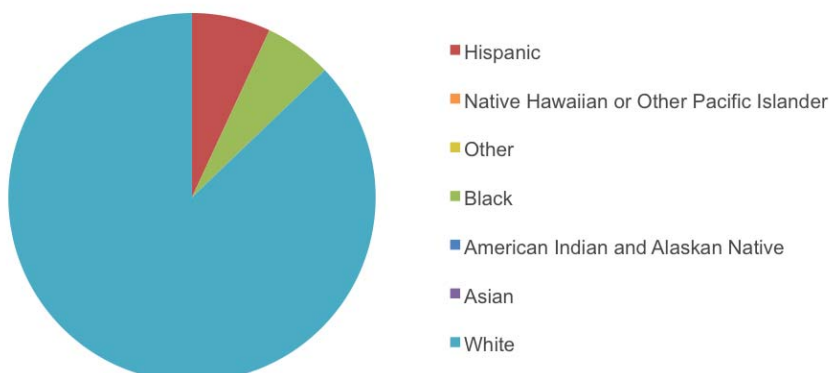
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	7%	88%	0%	0%	6%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	98%
Not U.S. Citizen	2%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Veterinary assistants and laboratory animal caretakers

Total Count: 450

SOC: 31-9096

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Veterinary assistants and laboratory animal caretakers 31-9096	Feed, water, and examine pets and other nonfarm animals for signs of illness, disease, or injury in laboratories and animal hospitals and clinics. Clean and disinfect cages and work areas, and sterilize laboratory and surgical equipment. May provide routine post-operative care, administer medication orally or topically, or prepare samples for laboratory examination under the supervision of veterinary or laboratory animal technologists or technicians, veterinarians, or scientists.	High School Diploma	Post-secondary credential	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$18,820	\$19,120	\$21,800	\$26,550	\$29,270
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	96
Anticipated growth (%)	18%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

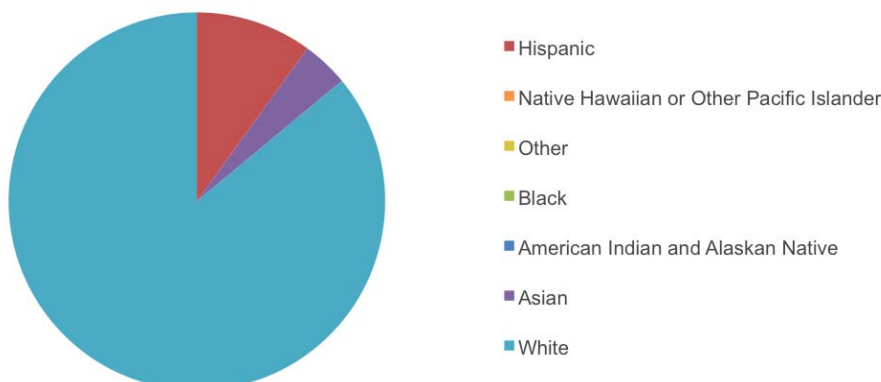
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	10%	86%	0%	0%	0%	0%	4%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	96%
Not U.S. Citizen	4%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

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# Appendix III: Occupational Profiles

## Installation, Maintenance, and Repair

Aircraft mechanics and service technicians  
Automotive body and related repairers  
Automotive glass installers and repairers  
Automotive service technicians and mechanics  
Avionics technicians  
Bus and truck mechanics and diesel engine specialists  
Coin, vending, and amusement machine servicers and repairers  
Computer, automated teller, and office machine repairers  
Electric motor, power tool, and related repairers  
Electrical and electronics repairers, transportation equipment, and industrial and utility  
Electrical power-line installers and repairers  
Electronic equipment installers and repairers, motor vehicles  
Electronic home entertainment equipment installers and repairers  
First-line supervisors of mechanics, installers, and repairers  
Heating, air conditioning, and refrigeration mechanics and installers  
Heavy vehicle and mobile equipment service technicians and mechanics  
Helpers--installation, maintenance, and repair workers  
Home appliance repairers  
Locksmiths and safe repairers  
Maintenance and repair workers, general  
Maintenance workers, machinery  
Manufactured building and mobile home installers  
Millwrights  
Miscellaneous vehicle and mobile equipment mechanics, installers, and repairers  
Other installation, maintenance, and repair occupations  
Precision instrument and equipment repairers  
Radio and telecommunications equipment installers and repairers  
Riggers  
Security and fire alarm systems installers  
Small engine mechanics  
Telecommunications line installers and repairers



# Aircraft mechanics and service technicians

Total Count: 905

SOC: 49-3011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Aircraft mechanics and service technicians 49-3011	Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems. Includes helicopter and aircraft engine specialists.	Post-secondary credential	Associate's degree	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$40,400	\$47,830	\$55,540	\$65,200	\$80,460
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 15

Anticipated growth (%) 2%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	1%	95%	1%	0%	0%	0%	2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

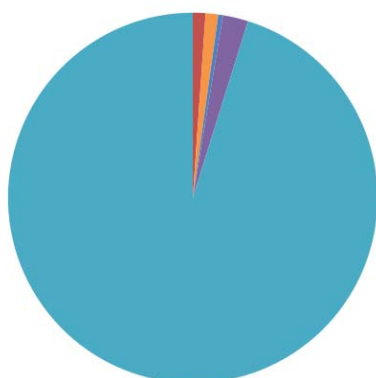
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 96%

Not U.S. Citizen 4%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Automotive body and related repairers

Total Count: 920

SOC: 49-3021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Automotive body and related repairers 49-3021	Repair and refinish automotive vehicle bodies and straighten vehicle frames.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,810	\$33,020	\$41,870	\$54,050	\$68,190
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	95
Anticipated growth (%)	11%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

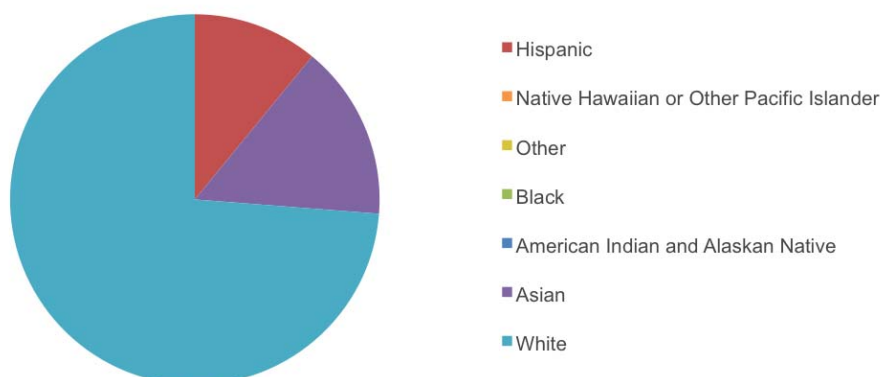
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	11%	73%	0%	0%	0%	0%	15%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	82%
Not U.S. Citizen	19%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	18%
Not English Language Learner	82%

Source: American Community Survey, PUMS Data

# Automotive glass installers and repairers

Total Count: 230

SOC: 49-3022

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Automotive glass installers and repairers 49-3022	Replace or repair broken windshields and window glass in motor vehicles.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	5
Anticipated growth (%)	11%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

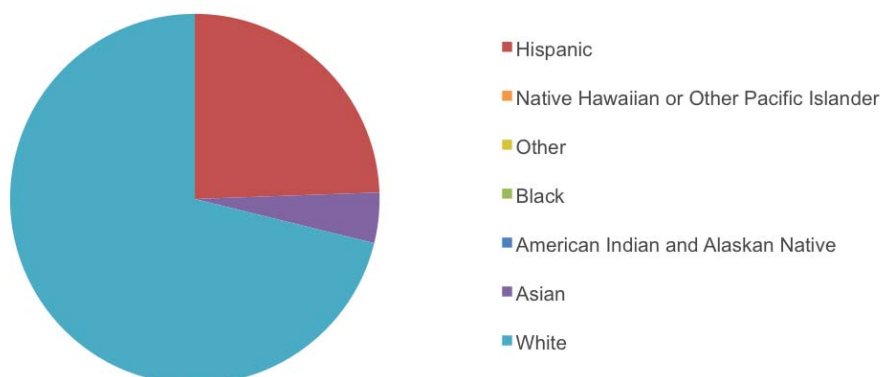
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	24%	70%	0%	0%	0%	0%	4%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	78%
Not U.S. Citizen	22%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Automotive service technicians and mechanics

Total Count: 4450

SOC: 49-3023

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Automotive service technicians and mechanics 49-3023	Diagnose, adjust, repair, or overhaul automotive vehicles.	Post-secondary credential	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$25,670	\$32,670	\$42,850	\$53,710	\$61,460
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 387

Anticipated growth (%) 10%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	12%	76%	1%	0%	2%	1%	8%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

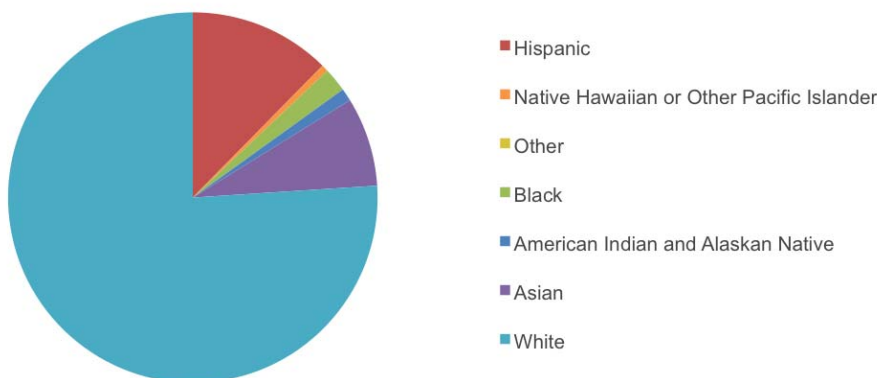
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 87%

Not U.S. Citizen 13%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 11%

Not English Language Learner 89%

Source: American Community Survey, PUMS Data

# Avionics technicians

Total Count: 55

SOC: 49-2091

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Avionics technicians 49-2091	Install, inspect, test, adjust, or repair avionics equipment, such as radar, radio, navigation, and missile control systems in aircraft or space vehicles.	Post-secondary credential	Associate's degree	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	43
Anticipated growth (%)	30%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

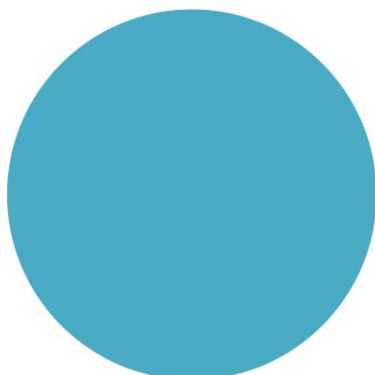
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	82%
Not U.S. Citizen	18%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Bus and truck mechanics and diesel engine specialists

Total Count: 2225

SOC: 49-3031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Bus and truck mechanics and diesel engine specialists 49-3031	Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$34,570	\$41,470	\$49,850	\$57,290	\$62,910
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 254

Anticipated growth (%) 12%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	5%	87%	1%	0%	1%	4%	4%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

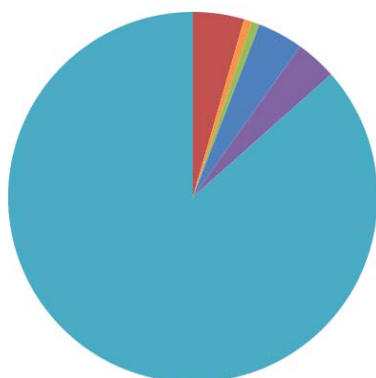
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 91%

Not U.S. Citizen 9%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 6%

Not English Language Learner 94%

Source: American Community Survey, PUMS Data

# Coin, vending, and amusement machine servicers and repairers

Total Count: 265

SOC: 49-9091

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Coin, vending, and amusement machine servicers and repairers 49-9091	Install, service, adjust, or repair coin, vending, or amusement machines including video games, juke boxes, pinball machines, or slot machines.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,120	\$29,400	\$36,370	\$46,680	\$54,220
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 12

Anticipated growth (%) 8%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	92%	0%	0%	8%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

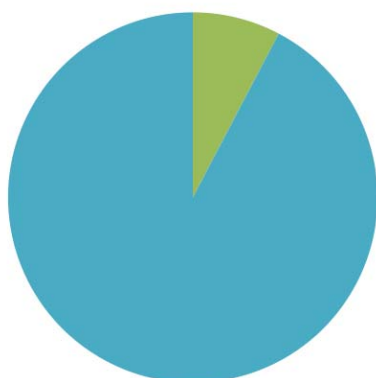
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Computer, automated teller, and office machine repairers

Total Count: 1970

SOC: 49-2011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Computer, automated teller, and office machine repairers 49-2011	Repair, maintain, or install computers, word processing systems, automated teller machines, and electronic office machines, such as duplicating and fax machines.	High School Diploma or equivalent	Post-secondary credential	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$23,470	\$27,970	\$35,590	\$44,960	\$54,320
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 73

Anticipated growth (%) 7%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	88%	0%	1%	2%	1%	3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

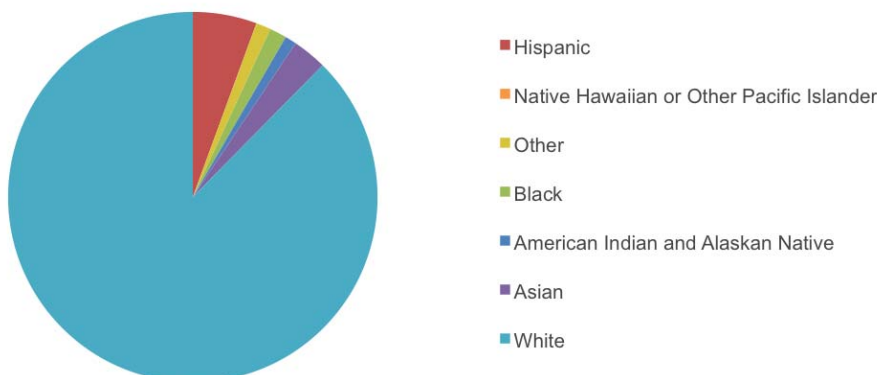
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 95%

Not U.S. Citizen 5%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 3%

Not English Language Learner 97%

Source: American Community Survey, PUMS Data



# Electric motor, power tool, and related repairers

Total Count: 174

SOC: 49-2092

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Electric motor, power tool, and related repairers 49-2092	Repair, maintain, or install electric motors, wiring, or switches.	Post-secondary credential	N/A	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,090	\$23,420	\$33,950	\$45,470	\$57,860
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 7

Anticipated growth (%) 8%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	91%	0%	0%	9%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

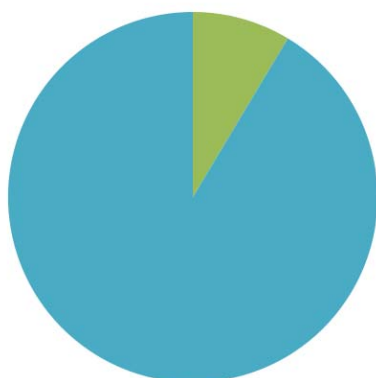
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Electrical and electronics repairers, transportation equipment, and industrial and utility

Total Count: 90

SOC: 49-209X

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Electrical and electronics repairers, transportation equipment, and industrial and utility 49-209X	Electrical and electronics installers and repairers install, repair, or replace a variety of electrical equipment in telecommunications, transportation, utilities, and other industries.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

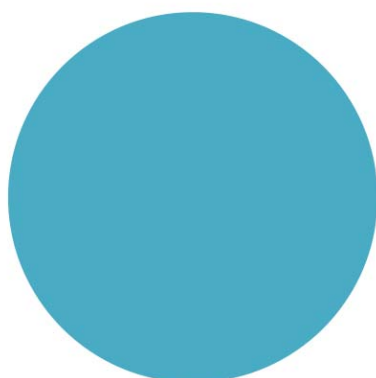
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Electrical power-line installers and repairers

Total Count: 625

SOC: 49-9051

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Electrical power-line installers and repairers 49-9051	Install or repair cables or wires used in electrical power or distribution systems. May erect poles and light or heavy duty transmission towers.	Post-secondary credential	N/A	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$40,990	\$50,240	\$82,190	\$87,440	\$95,540
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 63

Anticipated growth (%) 9%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	3%	90%	0%	2%	0%	3%	2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

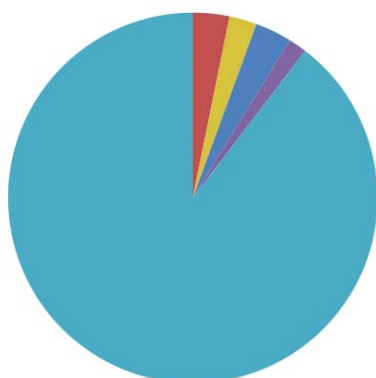
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 98%

Not U.S. Citizen 2%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Electronic equipment installers and repairers, motor vehicles

Total Count: 55

SOC: 49-2096

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Electronic equipment installers and repairers, motor vehicles 49-2096	Install, diagnose, or repair communications, sound, security, or navigation equipment in motor vehicles.	Post-secondary credential	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$18,930	\$19,360	\$27,250	\$35,910	\$41,260
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	-4
Anticipated growth (%)	-2%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

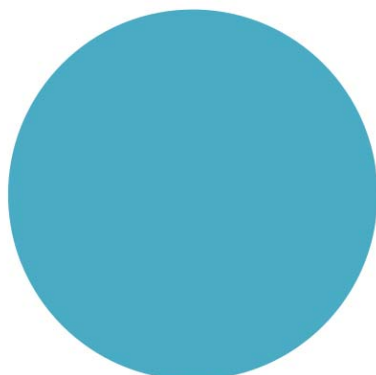
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	73%
Not U.S. Citizen	27%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	34%
Not English Language Learner	66%

Source: American Community Survey, PUMS Data

# Electronic home entertainment equipment installers and repairers

Total Count: 345

SOC: 49-2097

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Electronic home entertainment equipment installers and repairers 49-2097	Repair, adjust, or install audio or television receivers, stereo systems, camcorders, video systems, or other electronic home entertainment equipment.	Post-secondary credential	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,700	\$24,440	\$35,690	\$46,700	\$53,950
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	2
Anticipated growth (%)	1%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

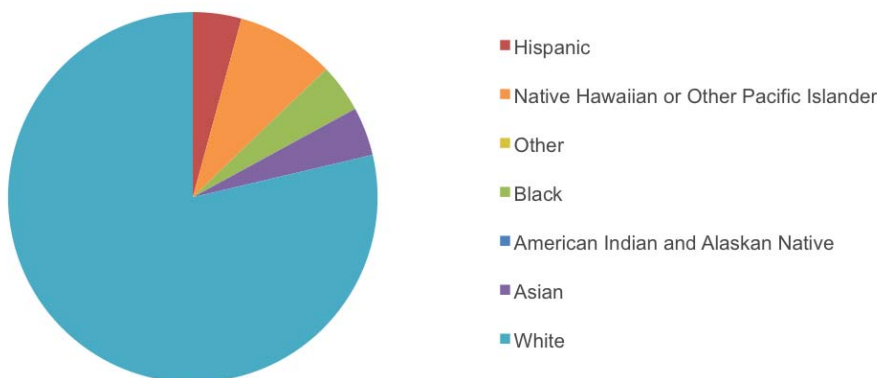
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	4%	80%	9%	0%	4%	0%	4%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	96%
Not U.S. Citizen	4%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# First-line supervisors of mechanics, installers, and repairers

Total Count: 1895

SOC: 49-1011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
First-line supervisors of mechanics, installers, and repairers 49-1011	Directly supervise and coordinate the activities of mechanics, installers, and repairers.	High School Diploma or equivalent	Post-secondary credential	Up to five years of related work experience is commonly considered necessary for this occupation.

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$38,930	\$49,140	\$62,870	\$75,120	\$90,770
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	302
Anticipated growth (%)	11%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

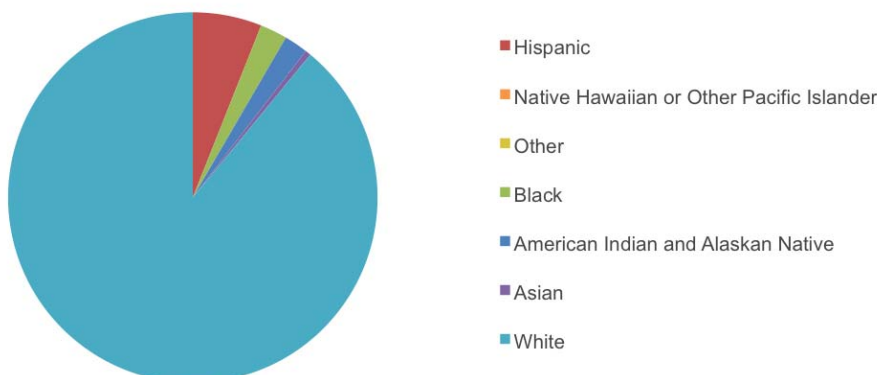
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	90%	0%	0%	2%	2%	1%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	98%
Not U.S. Citizen	2%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	1%
Not English Language Learner	99%

Source: American Community Survey, PUMS Data

# Heating, air conditioning, and refrigeration mechanics and installers

Total Count: 2435

SOC: 49-9021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Heating, air conditioning, and refrigeration mechanics and installers 49-9021	Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.	Post-secondary credential	N/A	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$27,000	\$33,480	\$50,720	\$65,710	\$80,070
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 401

Anticipated growth (%) 27%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	9%	88%	0%	1%	0%	1%	1%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

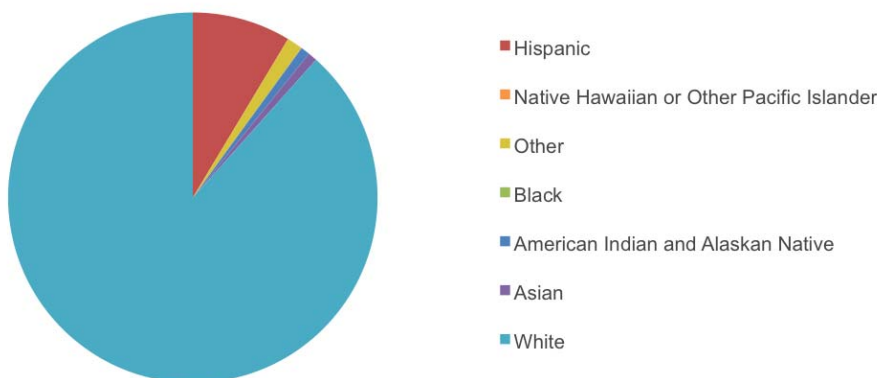
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 97%

Not U.S. Citizen 3%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 2%

Not English Language Learner 98%

Source: American Community Survey, PUMS Data

# Heavy vehicle and mobile equipment service technicians and mechanics

Total Count: 1415

SOC: 49-3040

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Farm Equipment Mechanics and Service Technicians 49-3041	Diagnose, adjust, repair, or overhaul farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.	High School Diploma	Post-secondary credential	Long-term
Mobile Heavy Equipment Mechanics, Except Engines 49-3042	Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and surface mining.	High School Diploma	Post-secondary credential	Long-term
Rail Car Repairers 49-3043	Diagnose, adjust, repair, or overhaul railroad rolling stock, mine cars, or mass transit rail cars.	High School Diploma	N/A	Long-term

Source: Oregon Employment Department

## Race and Ethnicity

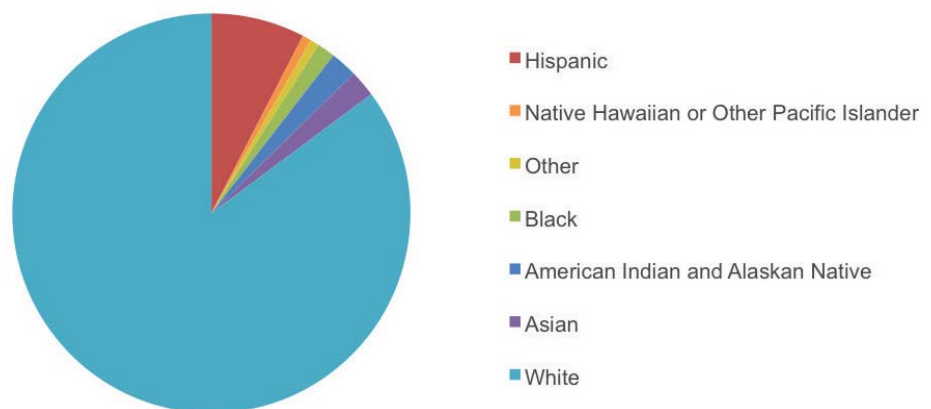
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	7.6%	84.8%	0.7%	0.7%	1.4%	2.2%	2.2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	95%
Not U.S. Citizen	5%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	1%
Not English Language Learner	99%

Source: American Community Survey, PUMS Data



# Heavy vehicle and mobile equipment service technicians and mechanics

Total Count: 1415

SOC: 49-3040

## Annual Wage Distribution

### Farm Equipment Mechanics and Service Technicians

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$30,720	\$34,100	\$39,350	\$44,870	\$49,000
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Mobile Heavy Equipment Mechanics, Except Engines

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$31,600	\$39,150	\$50,220	\$58,650	\$70,460
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Rail Car Repairers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$27,950	\$33,610	\$44,730	\$55,380	\$60,190
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	35
<i>Anticipated growth (%)</i>	19%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	186
<i>Anticipated growth (%)</i>	18%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	35
<i>Anticipated growth (%)</i>	12%

Source: Oregon Employment Department and Washington Security Department

# Helpers--installation, maintenance, and repair workers

Total Count: 260

SOC: 49-9098

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Helpers--installation, maintenance, and repair workers 49-9098	Help installation, maintenance, and repair workers in maintenance, parts replacement, and repair of vehicles, industrial machinery, and electrical and electronic equipment. Perform duties such as furnishing tools, materials, and supplies to other workers; cleaning work area, machines, and tools; and holding materials or tools for other workers.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,220	\$20,860	\$25,280	\$36,700	\$52,330
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	153
Anticipated growth (%)	15%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

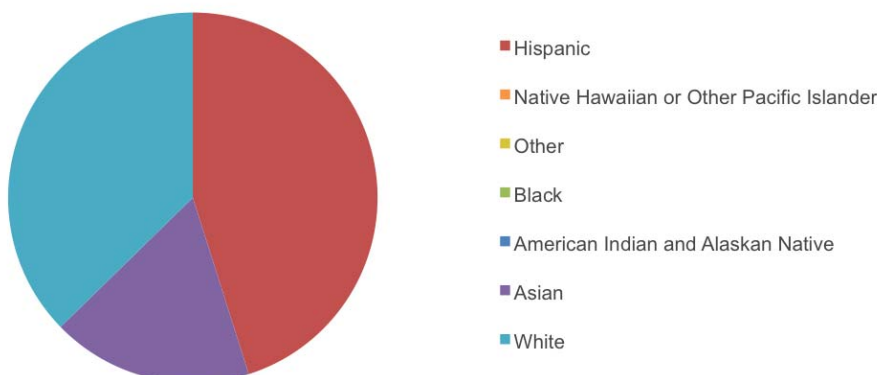
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	45%	37%	0%	0%	0%	0%	18%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	44%
Not U.S. Citizen	56%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Home appliance repairers

Total Count: 365

SOC: 49-9031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Home appliance repairers 49-9031	Repair, adjust, or install all types of electric or gas household appliances, such as refrigerators, washers, dryers, and ovens.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,060	\$29,450	\$35,610	\$51,590	\$68,940
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	35
Anticipated growth (%)	11%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

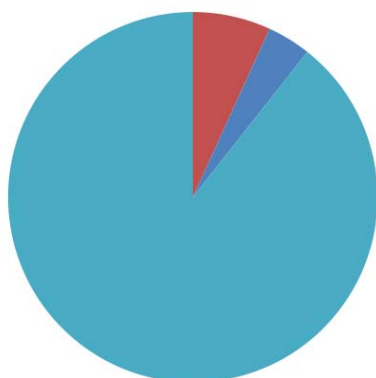
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	7%	89%	0%	0%	0%	4%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	93%
Not U.S. Citizen	7%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	14%
Not English Language Learner	86%

Source: American Community Survey, PUMS Data

# Locksmiths and safe repairers

Total Count: 200

SOC: 49-9094

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Locksmiths and safe repairers 49-9094	Repair and open locks; make keys; change locks and safe combinations; and install and repair safes.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$21,180	\$24,110	\$32,300	\$39,020	\$53,480
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	53
Anticipated growth (%)	24%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

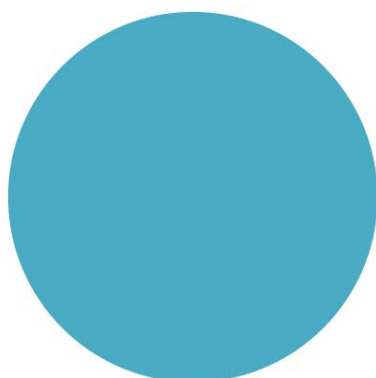
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Maintenance and repair workers, general

Total Count: 3350

SOC: 49-9071

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Maintenance and repair workers, general 49-9071	Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair. Duties may involve pipe fitting; boiler making; insulating; welding; machining; carpentry; repairing electrical or mechanical equipment; installing, aligning, and balancing new equipment; and repairing buildings, floors, or stairs.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,580	\$30,330	\$39,150	\$52,000	\$61,780
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 994

Anticipated growth (%) 14%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	15%	75%	0%	0%	0%	3%	7%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

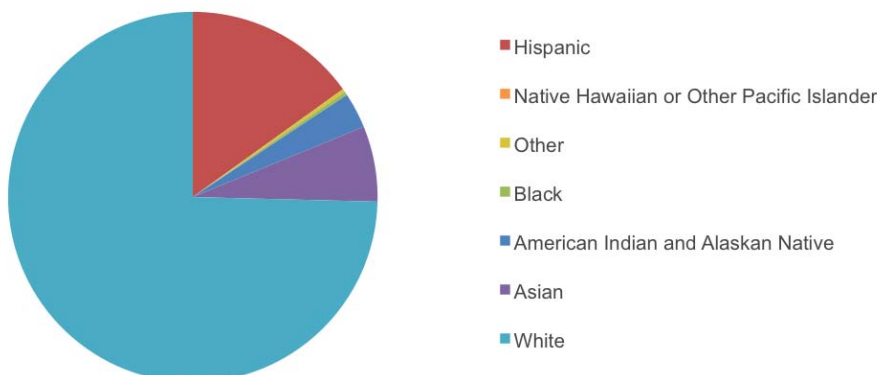
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 92%

Not U.S. Citizen 8%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 7%

Not English Language Learner 93%

Source: American Community Survey, PUMS Data

# Maintenance workers, machinery

Total Count: 345

SOC: 49-9043

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Maintenance workers, machinery 49-9043	Lubricate machinery, change parts, or perform other routine machinery maintenance.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$31,450	\$35,480	\$42,280	\$51,770	\$58,670
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	77
Anticipated growth (%)	14%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

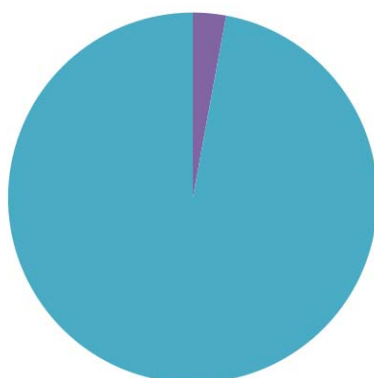
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	97%	0%	0%	0%	0%	3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	8%
Not English Language Learner	92%

Source: American Community Survey, PUMS Data

# Manufactured building and mobile home installers

Total Count: 10

SOC: 49-9095

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Manufactured building and mobile home installers 49-9095	Move or install mobile homes or prefabricated buildings.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	8
Anticipated growth (%)	19%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

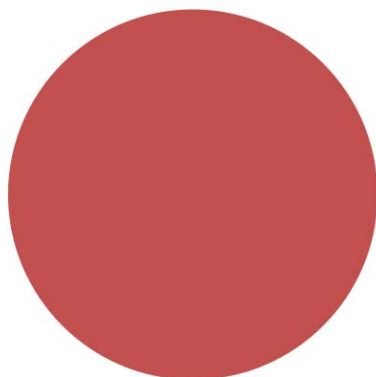
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	100%	0%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	0%
Not U.S. Citizen	100%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Millwrights

Total Count: 540

SOC: 49-9044

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Millwrights 49-9044	Install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.	High School Diploma	Post-secondary credential	Apprenticeship

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$38,080	\$47,150	\$61,190	\$70,310	\$75,500
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	66
Anticipated growth (%)	10%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

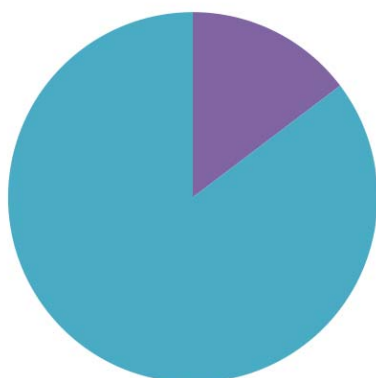
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	85%	0%	0%	0%	0%	15%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	87%
Not U.S. Citizen	13%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	29%
Not English Language Learner	71%

Source: American Community Survey, PUMS Data



# Miscellaneous vehicle and mobile equipment mechanics, installers, and repairers

Total Count: 685

SOC: 49-3090

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Bicycle Repairers 49-3091	Repair and service bicycles.	High School Diploma	N/A	Moderate
Recreational Vehicle Service Technicians 49-3092	Diagnose, inspect, adjust, repair, or overhaul recreational vehicles including travel trailers. May specialize in maintaining gas, electrical, hydraulic, plumbing, or chassis/towing systems as well as repairing generators, appliances, and interior components. Includes workers who perform customized van conversions.	Post-secondary credential	Associate's Degree	Long-term
Tire Repairers and Changers 49-3093	Repair and replace tires.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Race and Ethnicity

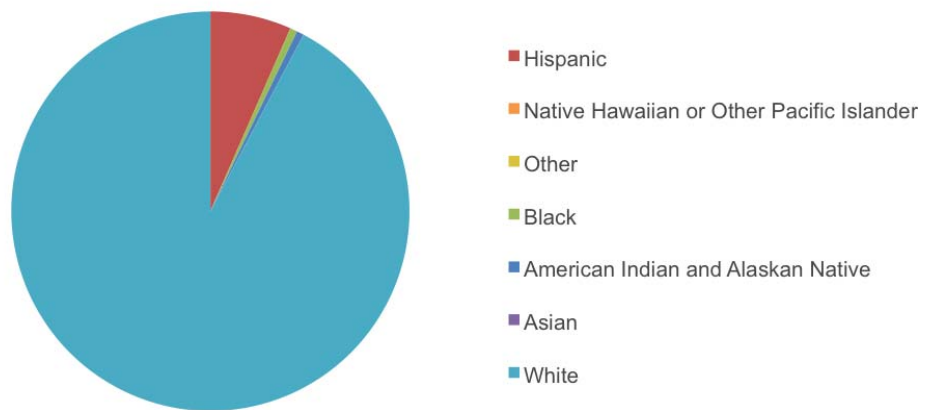
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	6.6%	92.0%	0.0%	0.0%	0.6%	0.6%	0.0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	96%
Not U.S. Citizen	4%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	4%
Not English Language Learner	96%

Source: American Community Survey, PUMS Data

# Miscellaneous vehicle and mobile equipment mechanics, installers, and repairers

Total Count: **685**      SOC: 49-3090

## Annual Wage Distribution

### Bicycle Repairers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$20,180	\$25,120	\$27,180	\$29,250	\$30,490
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Recreational Vehicle Service Technicians

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$30,290	\$32,780	\$36,190	\$41,090	\$47,240
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Tire Repairers and Changers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$19,660	\$22,140	\$28,250	\$34,930	\$40,770
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	11
<i>Anticipated growth (%)</i>	37%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	10
<i>Anticipated growth (%)</i>	10%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	74
<i>Anticipated growth (%)</i>	10%

Source: Oregon Employment Department and Washington Security Department

# Other installation, maintenance, and repair occupations

Total Count: 105

SOC: 49-9010

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Mechanical Door Repairers 49-9011	Install, service, or repair automatic door mechanisms and hydraulic doors. Includes garage door mechanics.	High School Diploma	N/A	Moderate
Control and Valve Installers and Repairers, Except Mechanical Door 49-9012	Install, repair, and maintain mechanical regulating and controlling devices, such as electric meters, gas regulators, thermostats, safety and flow valves, and other mechanical governors.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

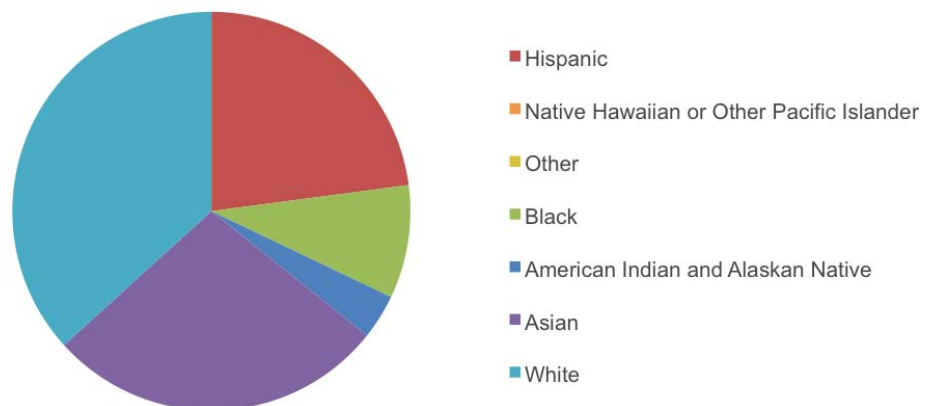
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	22.7%	36.4%	0.0%	0.0%	9.1%	3.6%	27.3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	95%
Not U.S. Citizen	5%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Other installation, maintenance, and repair occupations

Total Count: 105      SOC: 49-9010

## Annual Wage Distribution

### Mechanical Door Repairers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	10
<i>Anticipated growth (%)</i>	25%

Source: Oregon Employment Department and Washington Security Department

### Control and Valve Installers and Repairers, Except Mechanical Door

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$43,400	\$51,100	\$59,000	\$68,570	\$74,710
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	62
<i>Anticipated growth (%)</i>	16%

Source: Oregon Employment Department and Washington Security Department

# Precision instrument and equipment repairers

Total Count: **685**      SOC: 49-9060

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Camera and Photographic Equipment Repairers 49-9061	Repair and adjust cameras and photographic equipment, including commercial video and motion picture camera equipment.	High School Diploma	N/A	Long-term
Medical Equipment Repairers 49-9062	Test, adjust, or repair biomedical or electromedical equipment.	Post-secondary credential	Associate's degree	Moderate
Musical Instrument Repairers and Tuners 49-9063	Repair percussion, stringed, reed, or wind instruments. May specialize in one area, such as piano tuning.	Post-secondary credential	N/A	Apprenticeship
Watch Repairers 49-9064	Repair, clean, and adjust mechanisms of timing instruments, such as watches and clocks. Includes watchmakers, watch technicians, and mechanical timepiece repairers.	High School Diploma	Post-secondary credential	Long-term
Precision Instrument and Equipment Repairers, All Other 49-9069	All precision instrument and equipment repairers not listed separately.	Associate's degree	N/A	Long-term

Source: Oregon Employment Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	10.7%	73.2%	2.9%	2.2%	0.0%	0.0%	9.4%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

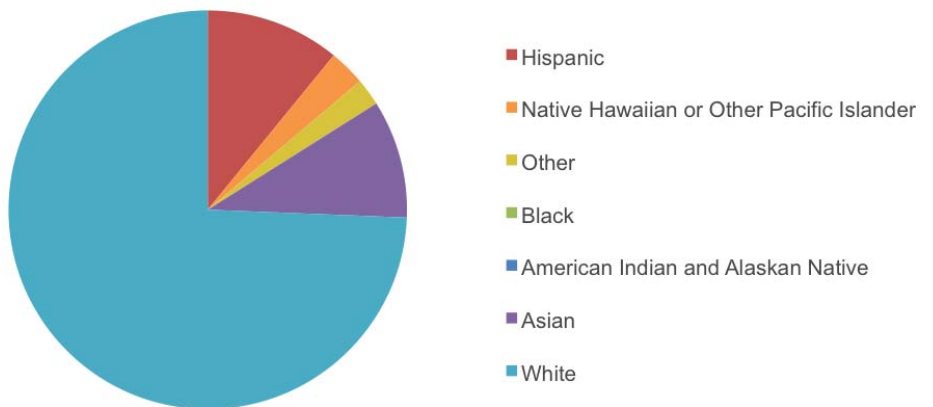
<i>U.S. Citizen</i>	88%
<i>Not U.S. Citizen</i>	12%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

<i>English Language Learner</i>	13%
<i>Not English Language Learner</i>	87%

Source: American Community Survey, PUMS Data



# Precision instrument and equipment repairers

Total Count: 685

SOC: 49-9060

## Annual Wage Distribution

### Camera and Photographic Equipment Repairers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$25,210	\$26,750	\$29,320	\$37,090	\$54,610
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	20
<i>Anticipated growth (%)</i>	24%

Source: Oregon Employment Department and Washington Security Department

### Medical Equipment Repairers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$34,770	\$41,330	\$58,370	\$72,250	\$85,150
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	91
<i>Anticipated growth (%)</i>	31%

Source: Oregon Employment Department and Washington Security Department

### Musical Instrument Repairers and Tuners

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$19,110	\$20,730	\$27,630	\$35,590	\$46,400
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	12
<i>Anticipated growth (%)</i>	14%

Source: Oregon Employment Department and Washington Security Department

### Watch Repairers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

### Precision Instrument and Equipment Repairers, All Other

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$39,830	\$45,750	\$60,350	\$68,950	\$74,040
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	22
<i>Anticipated growth (%)</i>	8%

Source: Oregon Employment Department and Washington Security Department

# Radio and telecommunications equipment installers and repairers

Total Count: 1005

SOC: 49-2020

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Radio, Cellular, and Tower Equipment Installers and Repairers 49-2021	Repair, install or maintain mobile or stationary radio transmitting, broadcasting, and receiving equipment, and two-way radio communications systems used in cellular telecommunications, mobile broadband, ship-to-shore, aircraft-to-ground communications, and radio equipment in service and emergency vehicles. May test and analyze network coverage.	Post-secondary credential	N/A	Moderate
Telecommunications Equipment Installers and Repairers, Except Line Installers 49-2022	Install, set-up, rearrange, or remove switching, distribution, routing, and dialing equipment used in central offices or headends. Service or repair telephone, cable television, Internet, and other communications equipment on customers' property. May install communications equipment or communications wiring in buildings.	Post-secondary credential	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

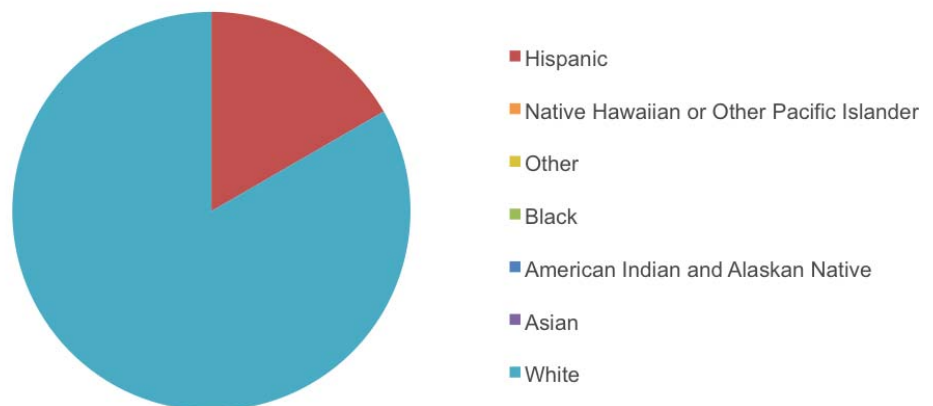
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	16.7%	83.3%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	98%
<i>Not U.S. Citizen</i>	2%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	2%
<i>Not English Language Learner</i>	98%

Source: American Community Survey, PUMS Data

# Radio and telecommunications equipment installers and repairers

Total Count: 1005

SOC: 49-2020

## Annual Wage Distribution

### Radio, Cellular, and Tower Equipment Installers and Repairers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$41,890	\$54,730	\$64,610	\$70,910	\$74,690
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	23
<i>Anticipated growth (%)</i>	12%

Source: Oregon Employment Department and Washington Security Department

### Telecommunications Equipment Installers and Repairers, Except Line Installers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	201
<i>Anticipated growth (%)</i>	12%

Source: Oregon Employment Department and Washington Security Department



# Riggers

Total Count: 165

SOC: 49-9096

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Riggers 49-9096	Set up or repair rigging for construction projects, manufacturing plants, logging yards, ships and shipyards, or for the entertainment industry.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$28,350	\$33,930	\$41,240	\$47,550	\$79,260
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 119

Anticipated growth (%) 39%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

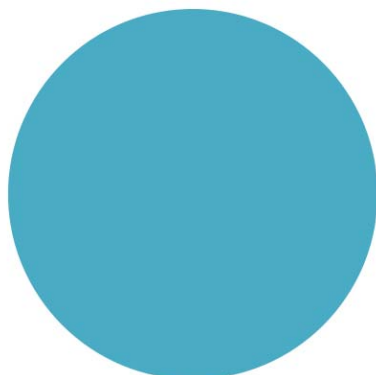
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Security and fire alarm systems installers

Total Count: 160

SOC: 49-2098

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Security and fire alarm systems installers 49-2098	Install, program, maintain, and repair security and fire alarm wiring and equipment. Ensure that work is in accordance with relevant codes.	Post-secondary credential	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$36,310	\$41,200	\$46,820	\$61,070	\$72,150
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 200

Anticipated growth (%) 30%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	19%	81%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

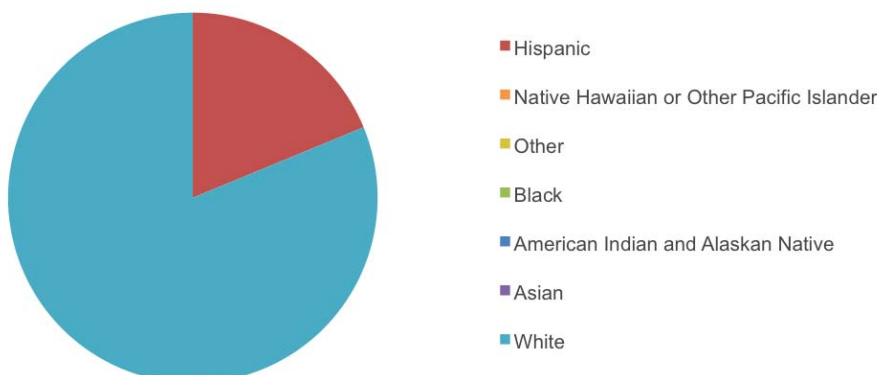
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Small engine mechanics

Total Count: 325

SOC: 49-3050

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Motorboat Mechanics and Service Technicians 49-3051	Repair and adjust electrical and mechanical equipment of inboard or inboard-outboard boat engines.	High School Diploma	N/A	Long-term
Motorcycle Mechanics 49-3052	Diagnose, adjust, repair, or overhaul motorcycles, scooters, mopeds, dirt bikes, or similar motorized vehicles.	High School Diploma	Post-secondary credential	Long-term
Outdoor Power Equipment and Other Small Engine Mechanics 49-3053	Diagnose, adjust, repair, or overhaul small engines used to power lawn mowers, chain saws, recreational sporting equipment and related equipment.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

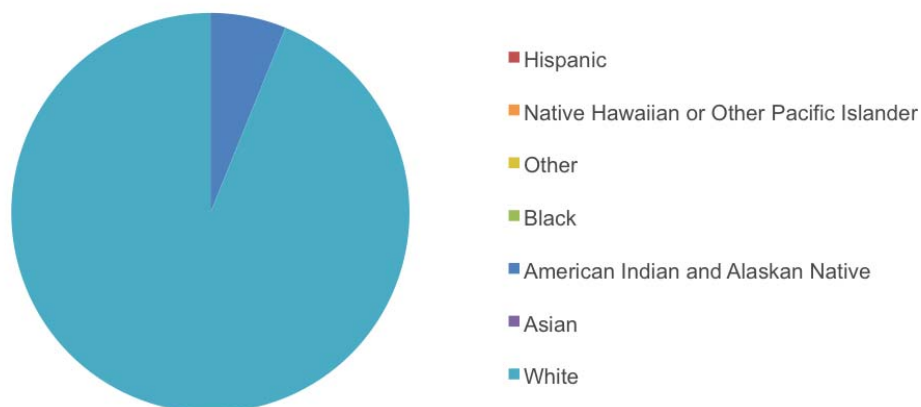
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	0.0%	93.8%	0.0%	0.0%	0.0%	6.2%	0.0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Small engine mechanics

Total Count: 325

SOC: 49-3050

## Annual Wage Distribution

### Motorboat Mechanics and Service Technicians

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$22,120	\$27,830	\$39,070	\$49,830	\$56,470
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Motorcycle Mechanics

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$26,870	\$30,240	\$37,380	\$47,460	\$56,710
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Outdoor Power Equipment and Other Small Engine Mechanics

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$22,530	\$26,600	\$34,060	\$43,100	\$50,880
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	11
<i>Anticipated growth (%)</i>	9%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	8
<i>Anticipated growth (%)</i>	8%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	31
<i>Anticipated growth (%)</i>	18%

Source: Oregon Employment Department and Washington Security Department

# Telecommunications line installers and repairers

Total Count: 1030

SOC: 49-9052

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Telecommunications line installers and repairers 49-9052	Install and repair telecommunications cable, including fiber optics.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$26,260	\$38,530	\$52,710	\$62,340	\$81,650
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 42

Anticipated growth (%) 5%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	81%	0%	0%	7%	4%	2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

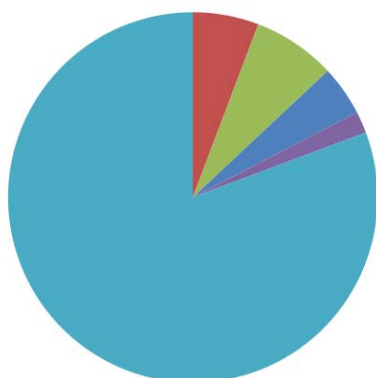
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 95%

Not U.S. Citizen 5%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 1%

Not English Language Learner 99%

Source: American Community Survey, PUMS Data

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# Appendix IV: Occupational Profiles

## Production

Adhesive bonding machine operators and tenders  
Aircraft structure, surfaces, rigging, and systems assemblers  
Bakers  
Butchers and other meat, poultry, and fish processing workers  
Cabinetmakers and bench carpenters  
Chemical processing machine setters, operators, and tenders  
Cleaning, washing, and metal pickling equipment operators and tenders  
Computer control programmers and operators  
Crushing, grinding, polishing, mixing, and blending workers  
Cutting workers  
Cutting, punching, and press machine setters, operators, and tenders, metal and plastic  
Drilling and boring machine tool setters, operators, and tenders, metal and plastic  
Electrical, electronics, and electromechanical assemblers  
Engine and other machine assemblers  
Etchers and engravers  
Extruding and drawing machine setters, operators, and tenders, metal and plastic  
Extruding, forming, pressing, and compacting machine setters, operators, and tenders  
First-line supervisors of production and operating workers  
Food and tobacco roasting, baking, and drying machine operators and tenders  
Food batchmakers  
Food cooking machine operators and tenders  
Food processing workers, all other  
Forging machine setters, operators, and tenders, metal and plastic  
Furnace, kiln, oven, drier, and kettle operators and tenders  
Furniture finishers  
Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic  
Heat treating equipment setters, operators, and tenders, metal and plastic  
Helpers--production workers  
Inspectors, testers, sorters, samplers, and weighers  
Jewelers and precious stone and metal workers  
Lathe and turning machine tool setters, operators, and tenders, metal and plastic  
Laundry and dry-cleaning workers  
Machinists  
Medical, dental, and ophthalmic laboratory technicians  
Metal furnace operators, tenders, pourers, and casters  
Miscellaneous assemblers and fabricators  
Miscellaneous plant and system operators  
Miscellaneous woodworkers, including model makers and patternmakers  
Model makers and patternmakers, metal and plastic  
Molders and molding machine setters, operators, and tenders, metal and plastic  
Molders, shapers, and casters, except metal and plastic  
Multiple machine tool setters, operators, and tenders, metal and plastic  
Packaging and filling machine operators and tenders  
Painting workers  
Paper goods machine setters, operators, and tenders  
Photographic process workers and processing machine operators  
Plating and coating machine setters, operators, and tenders, metal and plastic  
Power plant operators, distributors, and dispatchers  
Prepress technicians and workers  
Pressers, textile, garment, and related materials  
Print binding and finishing workers  
Printing press operators  
Rolling machine setters, operators, and tenders, metal and plastic  
Sawing machine setters, operators, and tenders, wood  
Semiconductor processors  
Sewing machine operators  
Shoe and leather workers and repairers  
Shoe machine operators and tenders  
Stationary engineers and boiler operators  
Structural metal fabricators and fitters  
Tailors, dressmakers, and sewers  
Textile knitting and weaving machine setters, operators, and tenders  
Textile winding, twisting, and drawing out machine setters, operators, and tenders  
Tire builders  
Tool and die makers  
Tool grinders, filers, and sharpeners  
Upholsterers  
Water and wastewater treatment plant and system operators  
Welding, soldering, and brazing workers  
Woodworking machine setters, operators, and tenders, except sawing

# Adhesive bonding machine operators and tenders

Total Count: 115

SOC: 51-9191

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Adhesive bonding machine operators and tenders 51-9191	Operate or tend bonding machines that use adhesives to join items for further processing or to form a completed product. Processes include joining veneer sheets into plywood; gluing paper; or joining rubber and rubberized fabric parts, plastic, simulated leather, or other materials.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$31,940	\$34,570	\$38,950	\$43,630	\$46,570
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	-1
Anticipated growth (%)	-4%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

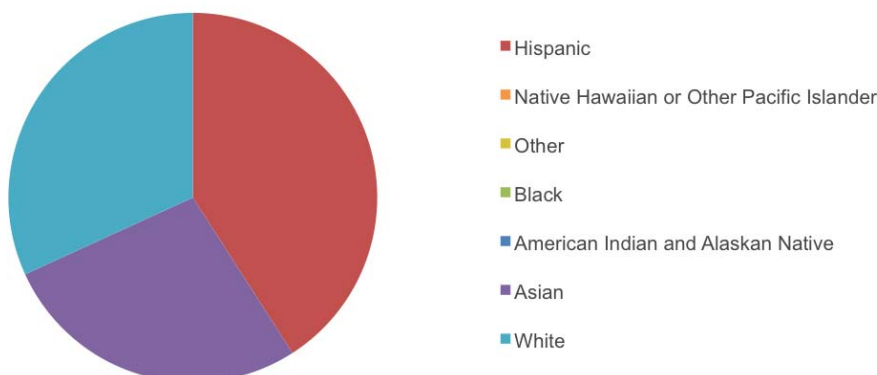
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	45%	35%	0%	0%	0%	0%	30%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	100%
Not English Language Learner	0%

Source: American Community Survey, PUMS Data

# Aircraft structure, surfaces, rigging, and systems assemblers

Total Count: 105

SOC: 51-2011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Aircraft structure, surfaces, rigging, and systems assemblers 51-2011	Assemble, fit, fasten, and install parts of airplanes, space vehicles, or missiles, such as tails, wings, fuselage, bulkheads, stabilizers, landing gear, rigging and control equipment, or heating and ventilating systems.	N/A	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

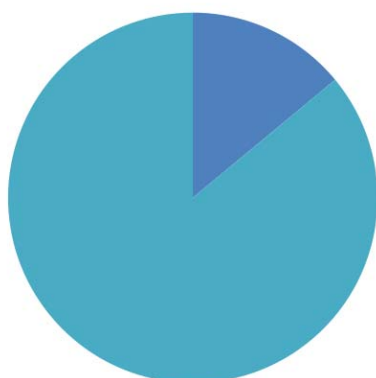
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	86%	0%	0%	0%	14%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data



# Bakers

Total Count: 1455

SOC: 51-3011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Bakers 51-3011	Mix and bake ingredients to produce breads, rolls, cookies, cakes, pies, pastries, or other baked goods. Pastry chefs in restaurants and hotels are included with "Chefs and Head Cooks" (35-1011).	None	High School Diploma	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$20,250	\$22,970	\$29,250	\$37,110	\$44,040
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 155

Anticipated growth (%) 12%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	19%	68%	0%	0%	0%	4%	10%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

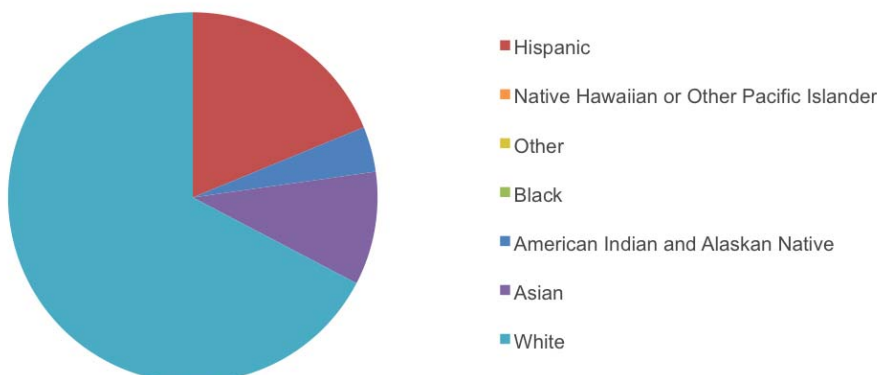
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 81%

Not U.S. Citizen 19%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 23%

Not English Language Learner 77%

Source: American Community Survey, PUMS Data

# Butchers and other meat, poultry, and fish processing workers

Total Count: 1150    SOC: 51-3020

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
<b>Butchers and Meat Cutters</b> 51-3021	Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.	None	Post-secondary credential	Long-term
<b>Meat, Poultry, and Fish Cutters and Trimmers</b> 51-3022	Use hand or hand tools to perform routine cutting and trimming of meat, poultry, and seafood.	None	Post-secondary credential	Long-term
<b>Slaughterers and Meat Packers</b> 51-3023	Work in slaughtering, meat packing, or wholesale establishments performing precision functions involving the preparation of meat. Work may include specialized slaughtering tasks, cutting standard or premium cuts of meat for marketing, making sausage, or wrapping meats.	None	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Race and Ethnicity

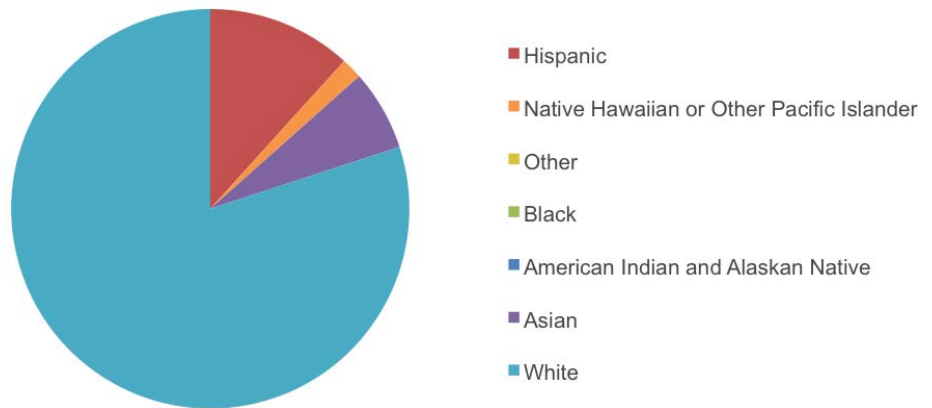
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	11.7%	79.7%	1.7%	0.0%	0.0%	0.0%	6.5%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	88%
<i>Not U.S. Citizen</i>	12%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	22%
<i>Not English Language Learner</i>	78%

Source: American Community Survey, PUMS Data

# Butchers and other meat, poultry, and fish processing workers

Total Count: 1150

SOC: 51-3020

## Annual Wage Distribution

### Butchers and Meat Cutters

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$21,710	\$28,140	\$39,550	\$44,250	\$47,070
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Meat, Poultry, and Fish Cutters and Trimmers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$19,080	\$19,750	\$25,000	\$32,670	\$37,960
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Slaughterers and Meat Packers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$24,170	\$31,110	\$35,380	\$41,170	\$46,420
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	102
<i>Anticipated growth (%)</i>	12%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	160
<i>Anticipated growth (%)</i>	32%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	0
<i>Anticipated growth (%)</i>	0%

Source: Oregon Employment Department and Washington Security Department

# Cabinetmakers and bench carpenters

Total Count: 795

SOC: 51-7011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Cabinetmakers and bench carpenters 51-7011	Cut, shape, and assemble wooden articles or set up and operate a variety of woodworking machines, such as power saws, jointers, and mortisers to surface, cut, or shape lumber or to fabricate parts for wood products.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$25,470	\$28,830	\$34,380	\$40,790	\$49,120
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 62

Anticipated growth (%) 7%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	9%	87%	0%	0%	0%	0%	4%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

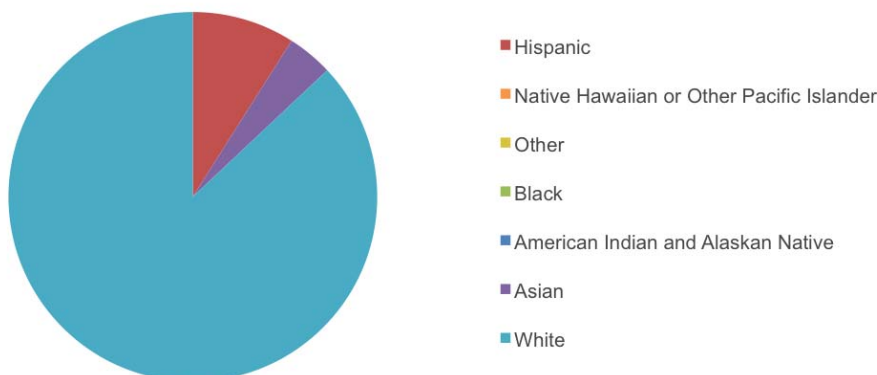
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 84%

Not U.S. Citizen 16%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 12%

Not English Language Learner 88%

Source: American Community Survey, PUMS Data

# Chemical processing machine setters, operators, and tenders

Total Count: 470

SOC: 51-9010

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Chemical Equipment Operators and Tenders 51-9011	Operate or tend equipment to control chemical changes or reactions in the processing of industrial or consumer products. Equipment used includes devulcanizers, steam-jacketed kettles, and reactor vessels.	High School Diploma	N/A	Moderate
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders 51-9012	Set up, operate, or tend continuous flow or vat-type equipment; filter presses; shaker screens; centrifuges; condenser tubes; precipitating, fermenting, or evaporating tanks; scrubbing towers; or batch stills. These machines extract, sort, or separate liquids, gases, or solids from other materials to recover a refined product.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

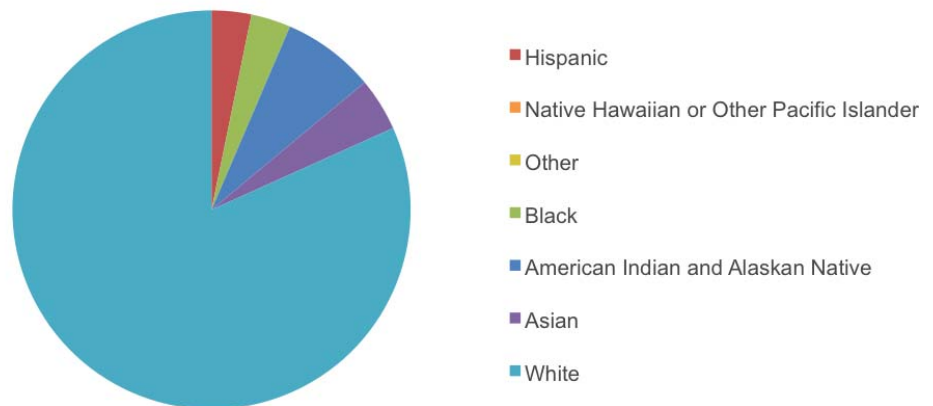
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	3.2%	81.7%	0.0%	0.0%	3.2%	7.5%	4.3%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	95%
<i>Not U.S. Citizen</i>	5%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	0%
<i>Not English Language Learner</i>	100%

Source: American Community Survey, PUMS Data

# Chemical processing machine setters, operators, and tenders

Total Count: 470

SOC: 51-9010

## Annual Wage Distribution

### Chemical Equipment Operators and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$29,200	\$35,660	\$45,170	\$53,730	\$58,430
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$24,710	\$26,270	\$28,800	\$34,170	\$46,850
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	17
<i>Anticipated growth (%)</i>	16%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	54
<i>Anticipated growth (%)</i>	16%

Source: Oregon Employment Department and Washington Security Department

# Cleaning, washing, and metal pickling equipment operators and tenders

Total Count: 64

SOC: 51-9192

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Cleaning, washing, and metal pickling equipment operators and tenders 51-9192	Operate or tend machines to wash or clean products, such as barrels or kegs, glass items, tin plate, food, pulp, coal, plastic, or rubber, to remove impurities.	None	High School Diploma	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,730	\$21,180	\$23,650	\$28,640	\$35,330
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth N/A

Anticipated growth (%) N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	35%	73%	0%	7%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

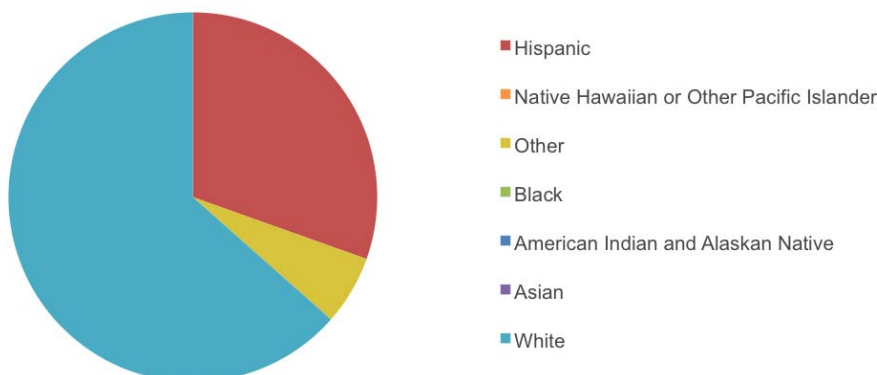
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen N/A

Not U.S. Citizen N/A

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 37%

Not English Language Learner 63%

Source: American Community Survey, PUMS Data

# Computer control programmers and operators

Total Count: 445

SOC: 51-4010

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Computer-Controlled Machine Tool Operators, Metal and Plastic 51-4011	Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.	High School Diploma	Post-secondary credential	Moderate
Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic 51-4012	Develop programs to control machining or processing of metal or plastic parts by automatic machine tools, equipment, or systems.	Post-secondary credential	N/A	Long-term

Source: Oregon Employment Department

## Race and Ethnicity

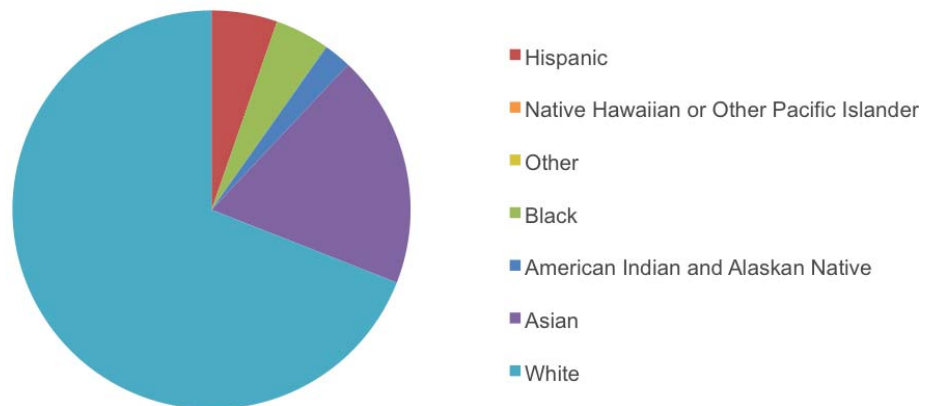
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	5.4%	69.7%	0.0%	0.0%	4.5%	2.2%	19.1%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	97%
<i>Not U.S. Citizen</i>	3%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	9%
<i>Not English Language Learner</i>	91%

Source: American Community Survey, PUMS Data



# Computer control programmers and operators

Total Count: 445

SOC: 51-4010

## Annual Wage Distribution

### Computer-Controlled Machine Tool Operators, Metal and Plastic

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$23,980	\$28,760	\$37,160	\$46,820	\$57,880
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	512
<i>Anticipated growth (%)</i>	33%

Source: Oregon Employment Department and Washington Security Department

### Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$36,910	\$43,300	\$53,720	\$69,000	\$89,940
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	104
<i>Anticipated growth (%)</i>	36%

Source: Oregon Employment Department and Washington Security Department

# Crushing, grinding, polishing, mixing, and blending workers

Total Count: 660

SOC: 51-9020

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders 51-9021	Set up, operate, or tend machines to crush, grind, or polish materials, such as coal, glass, grain, stone, food, or rubber.	High School Diploma	N/A	Moderate
Grinding and Polishing Workers, Hand 51-9022	Grind, sand, or polish, using hand tools or hand-held power tools, a variety of metal, wood, stone, clay, plastic, or glass objects. Includes chippers, buffers, and finishers.	None	High School Diploma	Moderate
Mixing and Blending Machine Setters, Operators, and Tenders 51-9023	Set up, operate, or tend machines to mix or blend materials, such as chemicals, tobacco, liquids, color pigments, or explosive ingredients.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

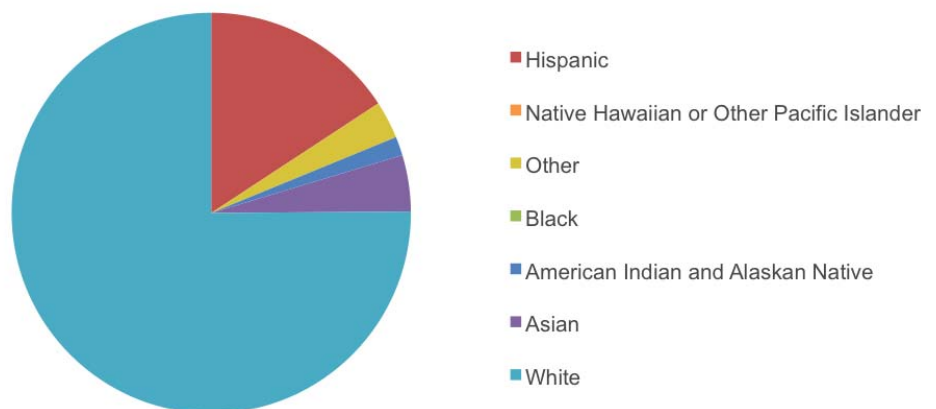
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	15.9%	75.6%	0.0%	3.1%	0.0%	1.5%	4.6%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	84%
<i>Not U.S. Citizen</i>	16%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	11%
<i>Not English Language Learner</i>	89%

Source: American Community Survey, PUMS Data

# Crushing, grinding, polishing, mixing, and blending workers

Total Count: 660

SOC: 51-9020

## Annual Wage Distribution

Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$22,980	\$26,350	\$31,030	\$38,640	\$44,700
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

Grinding and Polishing Workers, Hand

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$20,690	\$24,500	\$27,390	\$30,280	\$38,200
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

Mixing and Blending Machine Setters, Operators, and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$22,840	\$26,780	\$33,290	\$41,510	\$54,040
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

*Anticipated growth* 16

*Anticipated growth (%)* 7%

Source: Oregon Employment Department and Washington Security Department

*Anticipated growth* 37

*Anticipated growth (%)* 13%

Source: Oregon Employment Department and Washington Security Department

*Anticipated growth* 83

*Anticipated growth (%)* 17%

Source: Oregon Employment Department and Washington Security Department

# Cutting workers

Total Count: 450

SOC: 51-9030

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Cutters and Trimmers, Hand 51-9031	Use hand tools or hand-held power tools to cut and trim a variety of manufactured items, such as carpet, fabric, stone, glass, or rubber.	None	High School Diploma	Short-term
Cutting and Slicing Machine Setters, Operators, and Tenders 51-9032	Set up, operate, or tend machines that cut or slice materials, such as glass, stone, cork, rubber, tobacco, food, paper, or insulating material.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Race and Ethnicity

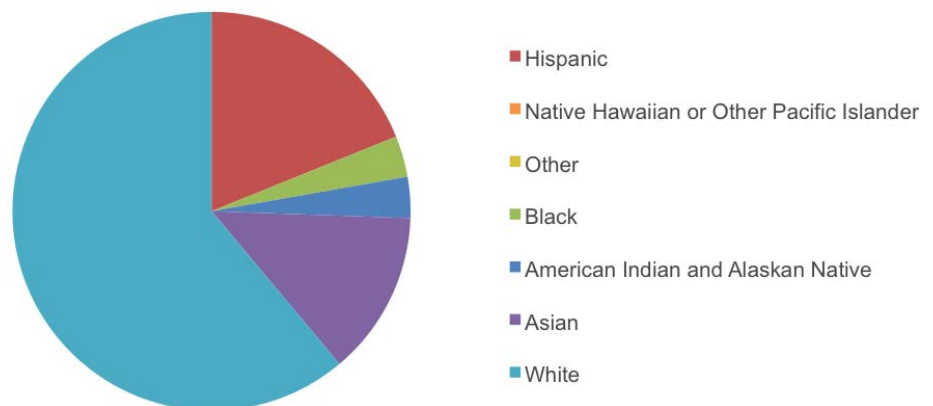
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	18.9%	61.1%	0.0%	0.0%	3.3%	3.3%	13.3%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	82%
<i>Not U.S. Citizen</i>	18%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	18%
<i>Not English Language Learner</i>	82%

Source: American Community Survey, PUMS Data

# Cutting workers

Total Count: 450

SOC: 51-9030

## Annual Wage Distribution

### Cutters and Trimmers, Hand

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$19,200	\$21,060	\$25,020	\$30,100	\$36,470
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	19
<i>Anticipated growth (%)</i>	10%

Source: Oregon Employment Department and Washington Security Department

### Cutting and Slicing Machine Setters, Operators, and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$23,250	\$28,620	\$34,680	\$40,450	\$47,580
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	26
<i>Anticipated growth (%)</i>	6%

Source: Oregon Employment Department and Washington Security Department

# Cutting, punching, and press machine setters, operators, and tenders, metal and plastic

Total Count: 515

SOC: 51-4031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Cutting, punching, and press machine setters, operators, and tenders, metal and plastic 51-4031	Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	52
Anticipated growth (%)	4%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

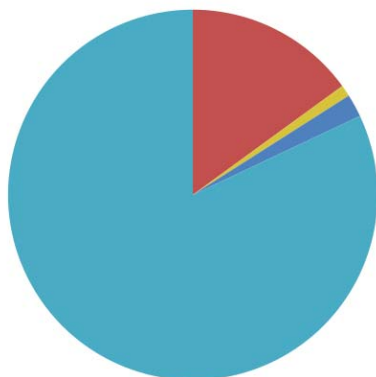
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	15%	82%	0%	1%	0%	2%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	96%
Not U.S. Citizen	4%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	4%
Not English Language Learner	96%

Source: American Community Survey, PUMS Data

# Drilling and boring machine tool setters, operators, and tenders, metal and plastic

Total Count: 10

SOC: 51-4032

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Drilling and boring machine tool setters, operators, and tenders, metal and plastic 51-4032	Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$20,900	\$25,120	\$32,610	\$40,850	\$49,370
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	-5
Anticipated growth (%)	-3%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

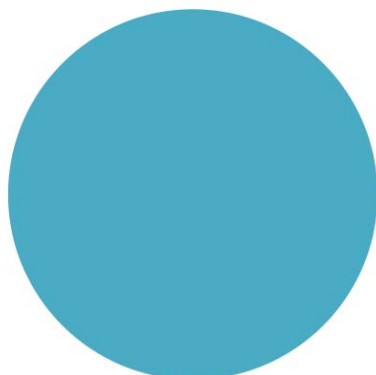
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Electrical, electronics, and electromechanical assemblers

Total Count: 1620

SOC: 51-2020

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Coil Winders, Tapers, and Finishers 51-2021	Wind wire coils used in electrical components, such as resistors and transformers, and in electrical equipment and instruments, such as field cores, bobbins, armature cores, electrical motors, generators, and control equipment.	High School Diploma	N/A	Short-term
Electrical and Electronic Equipment Assemblers 51-2022	Assemble or modify electrical or electronic equipment, such as computers, test equipment telemetering systems, electric motors, and batteries.	High School Diploma	N/A	Short-term
Electromechanical Equipment Assemblers 51-2023	Assemble or modify electromechanical equipment or devices, such as servomechanisms, gyros, dynamometers, magnetic drums, tape drives, brakes, control linkage, actuators, and appliances.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Race and Ethnicity

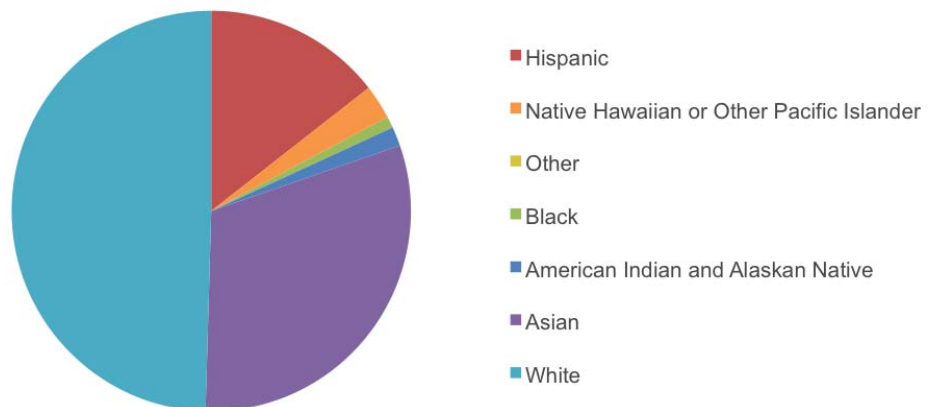
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	14.5%	49.7%	2.8%	0.0%	0.9%	1.5%	30.9%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	70%
<i>Not U.S. Citizen</i>	30%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	51%
<i>Not English Language Learner</i>	49%

Source: American Community Survey, PUMS Data



# Electrical, electronics, and electromechanical assemblers

Total Count: 1620

SOC: 51-2020

## Annual Wage Distribution

### Coil Winders, Tapers, and Finishers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$20,270	\$21,980	\$25,400	\$32,200	\$36,410
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	9
<i>Anticipated growth (%)</i>	6%

Source: Oregon Employment Department and Washington Security Department

### Electrical and Electronic Equipment Assemblers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$22,240	\$25,970	\$30,890	\$37,020	\$44,280
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	301
<i>Anticipated growth (%)</i>	10%

Source: Oregon Employment Department and Washington Security Department

### Electromechanical Equipment Assemblers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$22,210	\$25,720	\$30,610	\$36,400	\$45,990
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	20
<i>Anticipated growth (%)</i>	9%

Source: Oregon Employment Department and Washington Security Department

# Engine and other machine assemblers

Total Count: 80

SOC: 51-2031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Engine and other machine assemblers 51-2031	Construct, assemble, or rebuild machines, such as engines, turbines, and similar equipment used in such industries as construction, extraction, textiles, and paper manufacturing.	High School Diploma	Post-secondary credential	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$30,850	\$35,210	\$41,510	\$46,750	\$53,180
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	57
Anticipated growth (%)	21%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

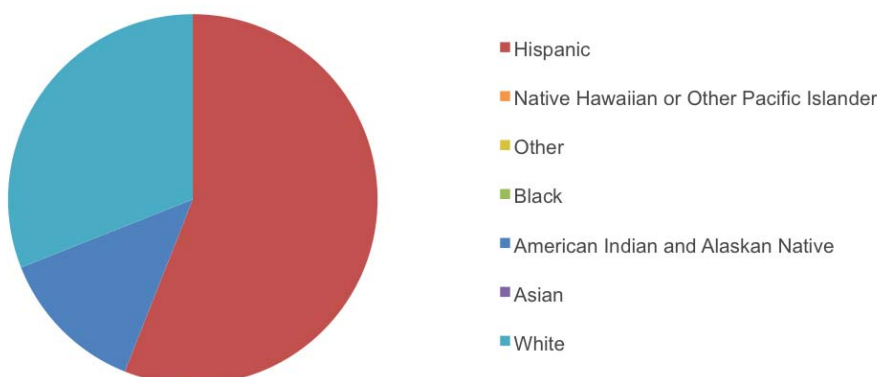
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	56%	31%	0%	0%	0%	13%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	88%
Not U.S. Citizen	13%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	23%
Not English Language Learner	77%

Source: American Community Survey, PUMS Data

# Etchers and engravers

Total Count: 125

SOC: 51-9194

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Etchers and engravers 51-9194	Engrave or etch metal, wood, rubber, or other materials. Includes such workers as etcher-circuit processors, pantograph engravers, and silk screen etchers. Photoengravers are included in "Prepress Technicians and Workers" (51-5111).	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,840	\$21,910	\$25,540	\$31,040	\$35,970
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	46
Anticipated growth (%)	20%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

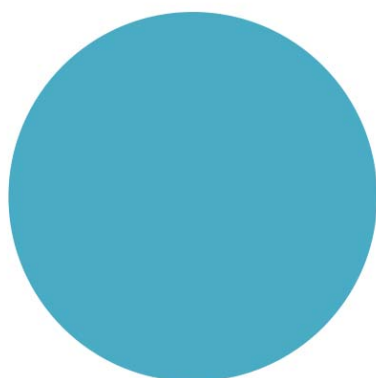
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Extruding and drawing machine setters, operators, and tenders, metal and plastic

Total Count: **84**

SOC: 51-4021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Extruding and drawing machine setters, operators, and tenders, metal and plastic 51-4021	Set up, operate, or tend machines to extrude or draw thermoplastic or metal materials into tubes, rods, hoses, wire, bars, or structural shapes.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$25,340	\$29,300	\$35,920	\$45,090	\$54,580
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	20
Anticipated growth (%)	6%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

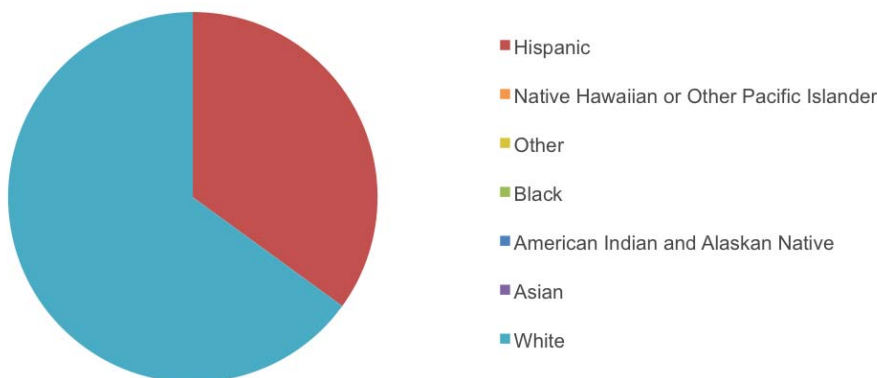
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	35%	65%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Extruding, forming, pressing, and compacting machine setters, operators, and tenders

Total Count: 330

SOC: 51-9041

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Extruding, forming, pressing, and compacting machine setters, operators, and tenders 51-9041	Set up, operate, or tend machines, such as glass forming machines, plodder machines, and tuber machines, to shape and form products, such as glassware, food, rubber, soap, brick, tile, clay, wax, tobacco, or cosmetics.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,110	\$19,900	\$23,200	\$30,130	\$37,080
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	96
Anticipated growth (%)	24%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

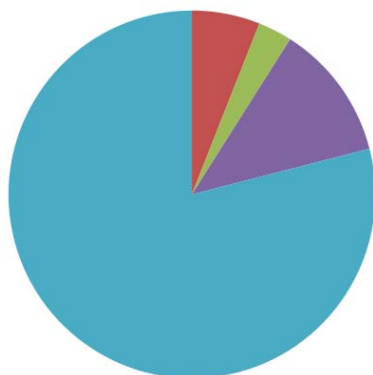
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	79%	0%	0%	3%	0%	12%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	82%
Not U.S. Citizen	18%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	16%
Not English Language Learner	84%

Source: American Community Survey, PUMS Data

# First-line supervisors of production and operating workers

Total Count: 6910

SOC: 51-1011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
First-line supervisors of production and operating workers 51-1011	Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.	High School Diploma	Bachelor's degree	Up to five years of related work experience is commonly considered necessary for this occupation.

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$36,840	\$44,290	\$57,260	\$72,160	\$87,090
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 460

Anticipated growth (%) 11%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	12%	78%	0%	1%	3%	1%	5%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

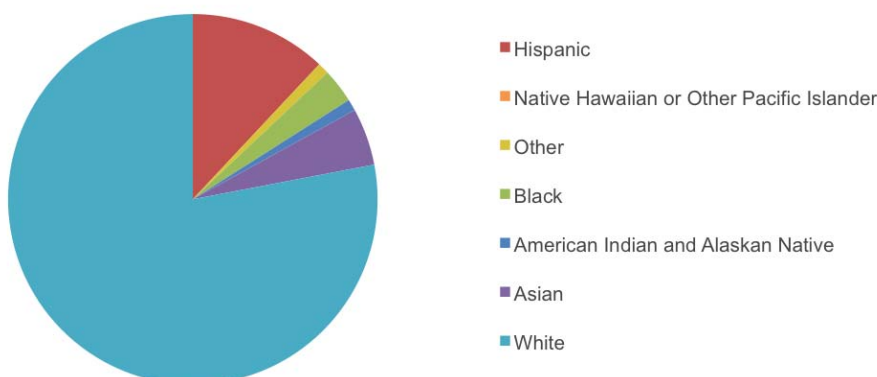
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 89%

Not U.S. Citizen 11%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 5%

Not English Language Learner 95%

Source: American Community Survey, PUMS Data

# Food and tobacco roasting, baking, and drying machine operators and tenders

Total Count: 135

SOC: 51-3091

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Food and tobacco roasting, baking, and drying machine operators and tenders 51-3091	Operate or tend food or tobacco roasting, baking, or drying equipment, including hearth ovens, kiln driers, roasters, char kilns, and vacuum drying equipment.	None	High School Diploma	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,460	\$25,820	\$28,070	\$30,330	\$38,800
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	14
Anticipated growth (%)	17%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

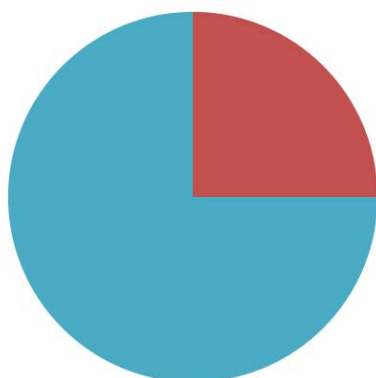
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	25%	75%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	89%
Not U.S. Citizen	11%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Food batchmakers

Total Count: 590

SOC: 51-3092

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Food batchmakers 51-3092	Set up and operate equipment that mixes or blends ingredients used in the manufacturing of food products. Includes candy makers and cheese makers.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,210	\$21,090	\$26,450	\$31,500	\$41,830
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	86
Anticipated growth (%)	12%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

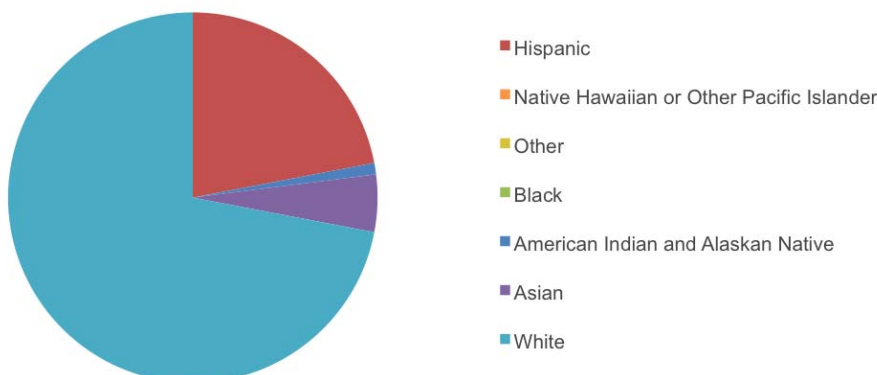
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	22%	72%	0%	0%	0%	1%	5%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	68%
Not U.S. Citizen	32%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	42%
Not English Language Learner	58%

Source: American Community Survey, PUMS Data



# Food cooking machine operators and tenders

Total Count: 65

SOC: 51-3093

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Food cooking machine operators and tenders 51-3093	Operate or tend cooking equipment, such as steam cooking vats, deep fry cookers, pressure cookers, kettles, and boilers, to prepare food products.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$22,770	\$26,180	\$30,750	\$37,430	\$43,350
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	44
Anticipated growth (%)	18%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

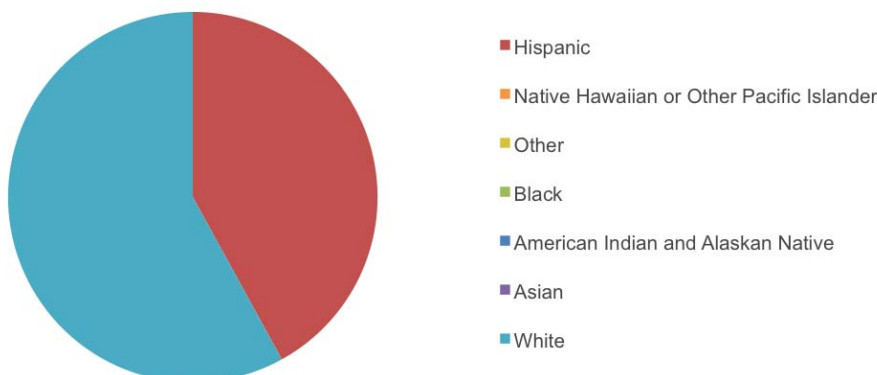
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	42%	58%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	83%
Not U.S. Citizen	17%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	21%
Not English Language Learner	79%

Source: American Community Survey, PUMS Data

# Food processing workers, all other

Total Count: **610**

SOC: 51-3099

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Food processing workers, all other 51-3099	All food processing workers not listed separately	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,100	\$19,860	\$23,660	\$32,400	\$37,320
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	41
Anticipated growth (%)	39%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

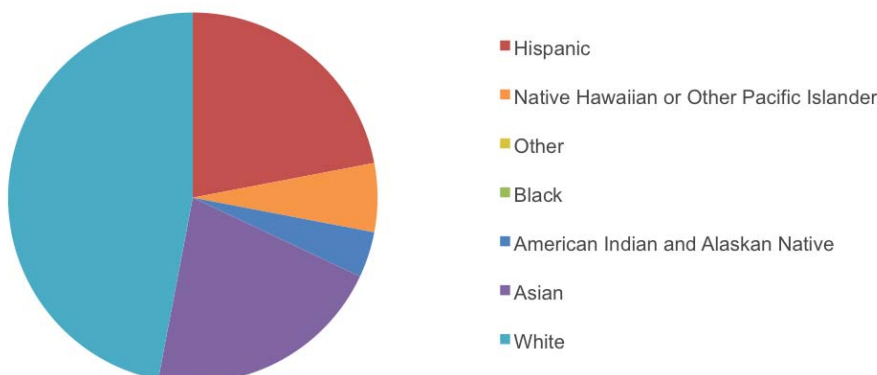
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	22%	47%	6%	0%	0%	4%	21%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	60%
Not U.S. Citizen	40%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	43%
Not English Language Learner	57%

Source: American Community Survey, PUMS Data

# Forging machine setters, operators, and tenders, metal and plastic

Total Count: N/A

SOC: 51-4022

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Forging machine setters, operators, and tenders, metal and plastic 51-4022	Set up, operate, or tend forging machines to taper, shape, or form metal or plastic parts.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$23,930	\$27,420	\$35,490	\$46,050	\$55,840
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	7
Anticipated growth (%)	6%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Furnace, kiln, oven, drier, and kettle operators and tenders

Total Count: 39

SOC: 51-9051

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Furnace, kiln, oven, drier, and kettle operators and tenders 51-9051	Operate or tend heating equipment other than basic metal, plastic, or food processing equipment. Includes activities, such as annealing glass, drying lumber, curing rubber, removing moisture from materials, or boiling soap.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$29,870	\$36,350	\$42,340	\$46,220	\$48,700
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	-1
Anticipated growth (%)	-1%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

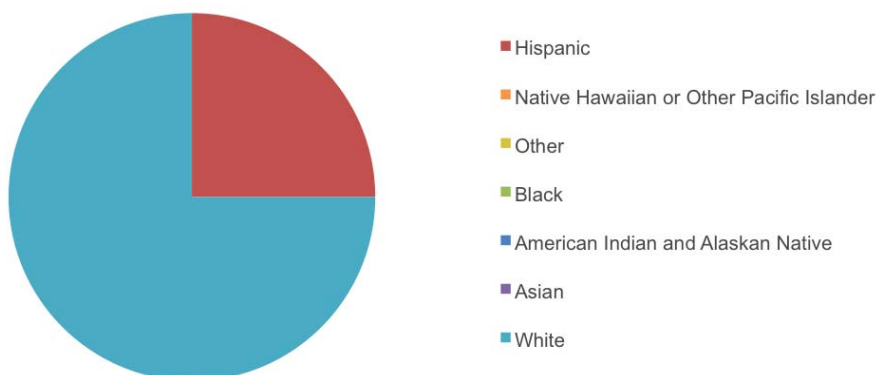
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	25%	75%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	16%
Not English Language Learner	84%

Source: American Community Survey, PUMS Data

# Furniture finishers

Total Count: 100

SOC: 51-7021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Furniture finishers 51-7021	Shape, finish, and refinish damaged, worn, or used furniture or new high-grade furniture to specified color or finish.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$21,990	\$26,040	\$30,080	\$35,680	\$40,630
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	7
Anticipated growth (%)	9%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

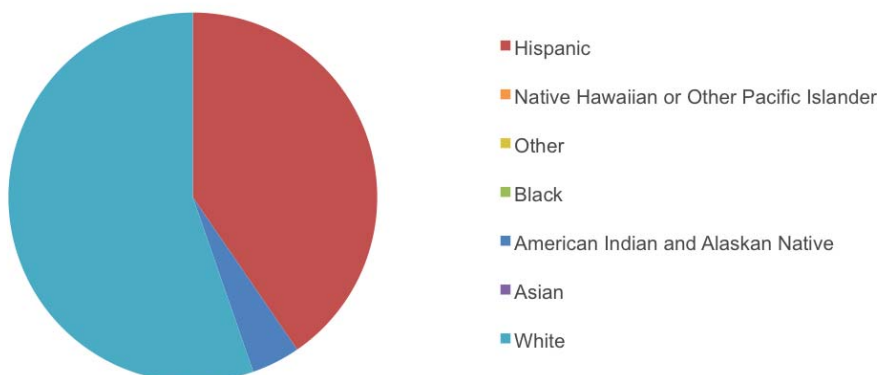
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	38%	52%	0%	0%	0%	4%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic

Total Count: **655**

SOC: 51-4033

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Grinding, lapping, polishing, and buffing machine tool setters, operators, and tenders, metal and plastic 51-4033	Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic work pieces.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$23,550	\$28,120	\$34,280	\$40,880	\$50,660
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 86

Anticipated growth (%) 8%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	20%	52%	8%	0%	15%	0%	6%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

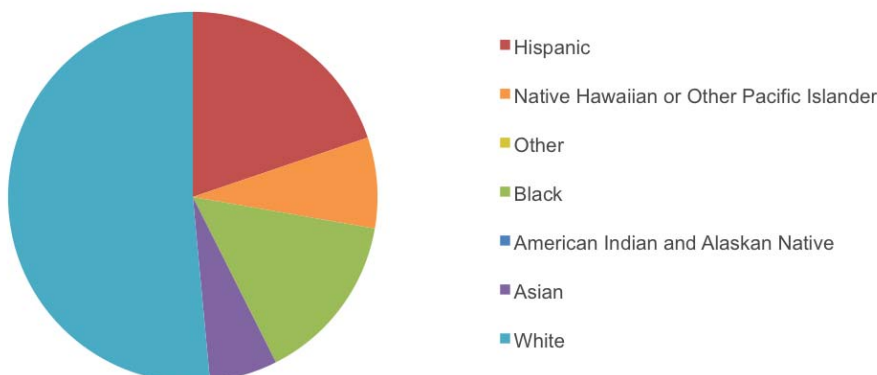
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 79%

Not U.S. Citizen 22%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 20%

Not English Language Learner 80%

Source: American Community Survey, PUMS Data

# Heat treating equipment setters, operators, and tenders, metal and plastic

Total Count: 89

SOC: 51-4191

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Heat treating equipment setters, operators, and tenders, metal and plastic 51-4191	Set up, operate, or tend heating equipment, such as heat-treating furnaces, flame-hardening machines, induction machines, soaking pits, or vacuum equipment to temper, harden, anneal, or heat-treat metal or plastic objects.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,710	\$28,270	\$34,370	\$42,040	\$48,100
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	46
Anticipated growth (%)	21%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

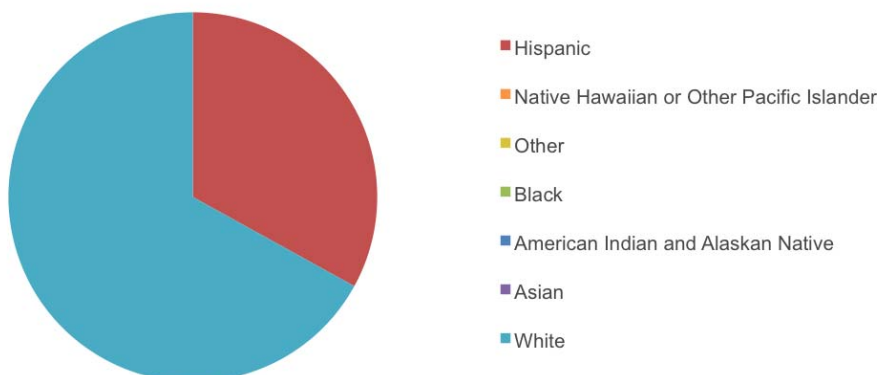
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	35%	71%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	67%
Not U.S. Citizen	33%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	57%
Not English Language Learner	43%

Source: American Community Survey, PUMS Data

# Helpers--production workers

Total Count: 250

SOC: 51-9198

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Helpers--production workers 51-9198	Help production workers by performing duties requiring less skill. Duties include supplying or holding materials or tools, and cleaning work area and equipment. Apprentice workers are classified in the appropriate production occupations (51-0000).	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,410	\$22,010	\$27,180	\$34,360	\$41,810
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 400

Anticipated growth (%) 16%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	6%	76%	0%	8%	0%	4%	8%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

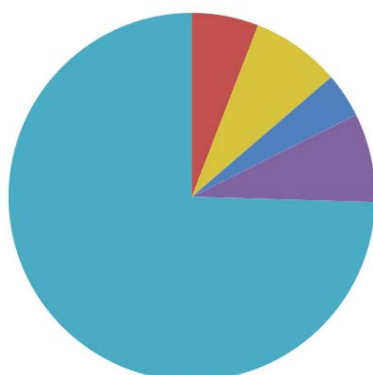
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 86%

Not U.S. Citizen 14%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 18%

Not English Language Learner 82%

Source: American Community Survey, PUMS Data



# Inspectors, testers, sorters, samplers, and weighers

Total Count: 5885

SOC: 51-9061

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Inspectors, testers, sorters, samplers, and weighers 51-9061	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$24,220	\$29,590	\$37,390	\$46,720	\$60,050
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 507

Anticipated growth (%) 16%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	11%	73%	0%	0%	1%	2%	12%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

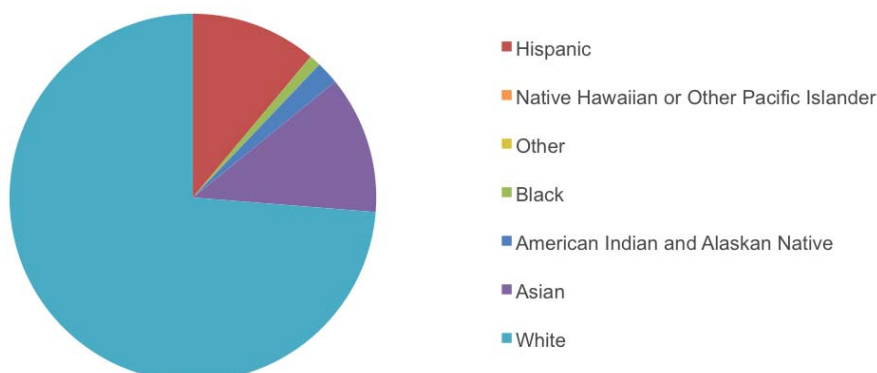
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 89%

Not U.S. Citizen 12%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 11%

Not English Language Learner 89%

Source: American Community Survey, PUMS Data

# Jewelers and precious stone and metal workers

Total Count: **385**

SOC: 51-9071

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Jewelers and precious stone and metal workers 51-9071	Design, fabricate, adjust, repair, or appraise jewelry, gold, silver, other precious metals, or gems. Includes diamond polishers and gem cutters, and persons who perform precision casting and modeling of molds, casting metal in molds, or setting precious and semi-precious stones for jewelry and related products.	Post-secondary credential	N/A	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$33,070	\$36,760	\$52,410	\$72,930	\$84,840
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	-8
Anticipated growth (%)	-4%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

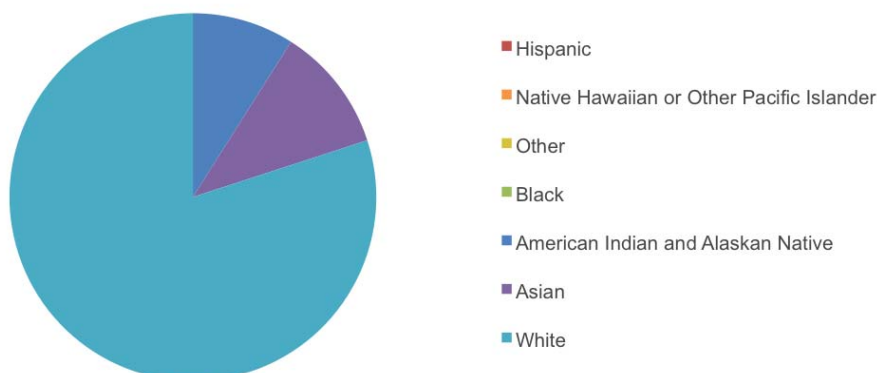
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	80%	0%	0%	0%	9%	11%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	87%
Not U.S. Citizen	13%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Lathe and turning machine tool setters, operators, and tenders, metal and plastic

Total Count: 60

SOC: 51-4034

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Lathe and turning machine tool setters, operators, and tenders, metal and plastic 51-4034	Set up, operate, or tend lathe and turning machines to turn, bore, thread, form, or face metal or plastic materials, such as wire, rod, or bar stock.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$28,030	\$35,750	\$48,470	\$58,460	\$82,630
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	5
Anticipated growth (%)	2%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

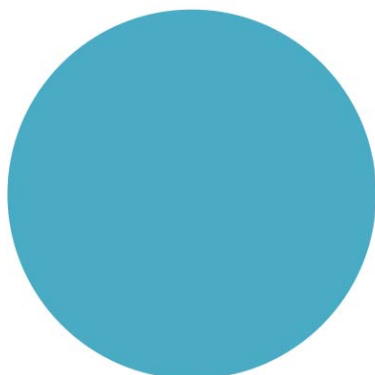
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Laundry and dry-cleaning workers

Total Count: 1205

SOC: 51-6011

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Laundry and dry-cleaning workers 51-6011	Operate or tend washing or dry-cleaning machines to wash or dry-clean industrial or household articles, such as cloth garments, suede, leather, furs, blankets, draperies, linens, rugs, and carpets. Includes spotters and dyers of these articles.	None	High School Diploma	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,030	\$19,660	\$22,150	\$24,950	\$33,560
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 51

Anticipated growth (%) 6%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	27%	56%	0%	0%	2%	0%	15%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

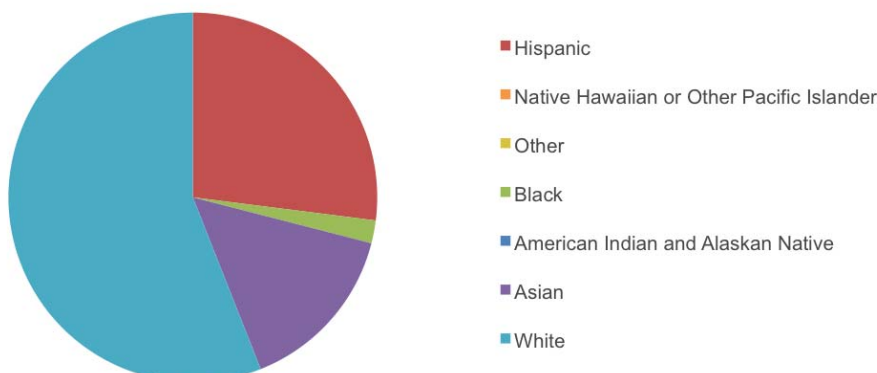
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 72%

Not U.S. Citizen 28%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 36%

Not English Language Learner 64%

Source: American Community Survey, PUMS Data

# Machinists

Total Count: 3170

SOC: 51-4041

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Machinists 51-4041	Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$30,290	\$36,580	\$45,540	\$55,700	\$65,530
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 664

Anticipated growth (%) 30%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	8%	82%	2%	0%	1%	1%	6%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

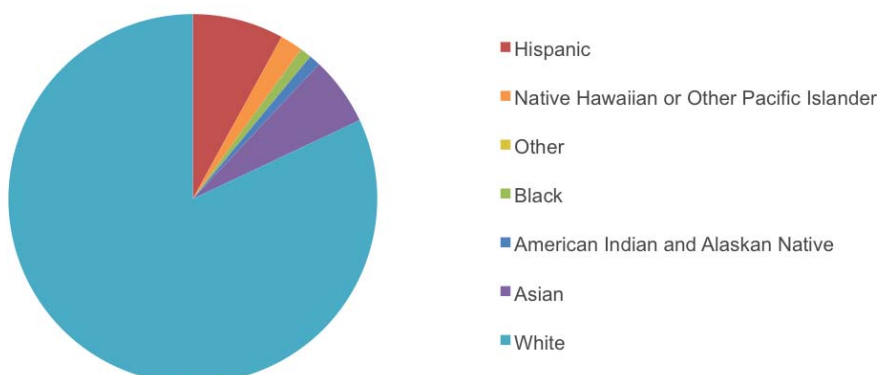
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 92%

Not U.S. Citizen 8%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 5%

Not English Language Learner 95%

Source: American Community Survey, PUMS Data

# Medical, dental, and ophthalmic laboratory technicians

Total Count: 730

SOC: 51-9080

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Dental Laboratory Technicians 51-9081	Construct and repair full or partial dentures or dental appliances.	High School Diploma	Post-secondary credential	Moderate
Medical Appliance Technicians 51-9082	Construct, fit, maintain, or repair medical supportive devices, such as braces, orthotics and prosthetic devices, joints, arch supports, and other surgical and medical appliances.	High School Diploma	Post-secondary credential	Moderate
Ophthalmic Laboratory Technicians 51-9083	Cut, grind, and polish eyeglasses, contact lenses, or other precision optical elements. Assemble and mount lenses into frames or process other optical elements. Includes precision lens polishers or grinders, centerer-edgers, and lens mounters.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

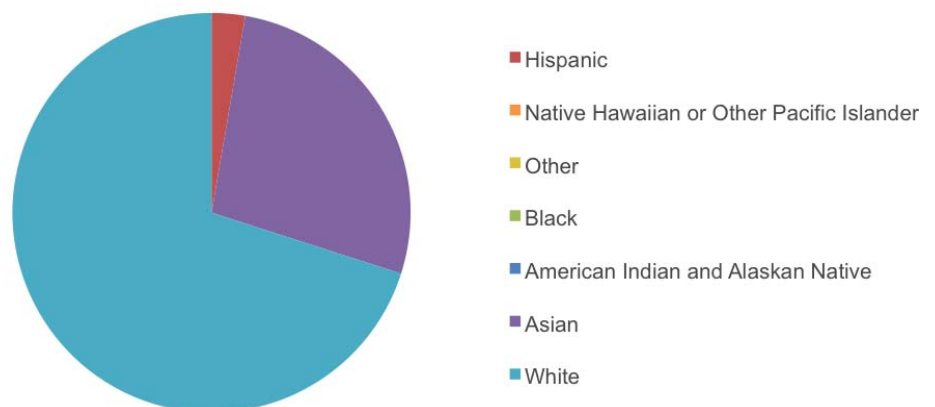
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	2.7%	70.1%	0.0%	0.0%	0.0%	0.0%	27.2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	86%
Not U.S. Citizen	14%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	25%
Not English Language Learner	75%

Source: American Community Survey, PUMS Data

# Medical, dental, and ophthalmic laboratory technicians

Total Count: 730

SOC: 51-9080

## Annual Wage Distribution

### Dental Laboratory Technicians

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$21,660	\$25,950	\$35,550	\$46,000	\$57,710
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Medical Appliance Technicians

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$26,000	\$29,490	\$40,090	\$50,210	\$57,750
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Ophthalmic Laboratory Technicians

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$19,380	\$25,550	\$33,170	\$38,440	\$44,720
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	61
<i>Anticipated growth (%)</i>	11%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	12
<i>Anticipated growth (%)</i>	18%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	31
<i>Anticipated growth (%)</i>	13%

Source: Oregon Employment Department and Washington Security Department

# Metal furnace operators, tenders, pourers, and casters

Total Count: 270

SOC: 51-4050

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Metal-Refining Furnace Operators and Tenders 51-4051	Operate or tend furnaces, such as gas, oil, coal, electric-arc or electric induction, open-hearth, or oxygen furnaces, to melt and refine metal before casting or to produce specified types of steel.	High School Diploma	N/A	Moderate
Pourers and Casters, Metal 51-4052	Operate hand-controlled mechanisms to pour and regulate the flow of molten metal into molds to produce castings or ingots.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

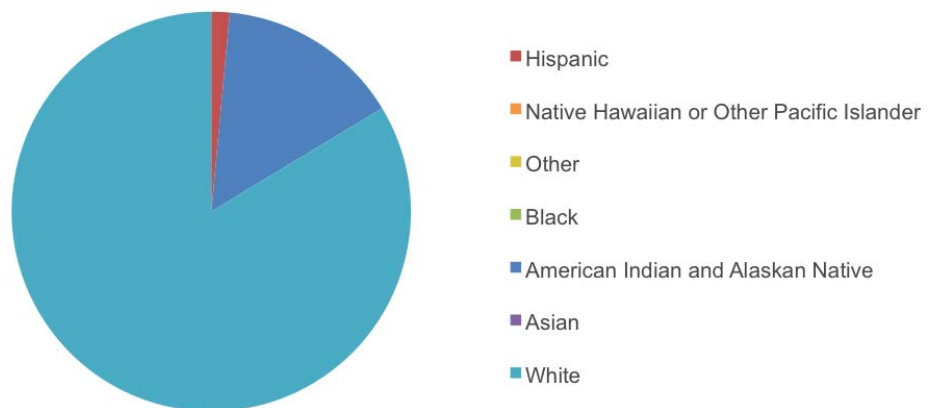
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	1.5%	83.3%	0.0%	0.0%	0.0%	14.8%	0.0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data



# Metal furnace operators, tenders, pourers, and casters

Total Count: 270

SOC: 51-4050

## Annual Wage Distribution

### Metal-Refining Furnace Operators and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$26,520	\$30,770	\$37,740	\$46,570	\$65,740
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Pourers and Casters, Metal

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$23,830	\$26,250	\$29,260	\$34,620	\$41,560
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	39
<i>Anticipated growth (%)</i>	19%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	9
<i>Anticipated growth (%)</i>	8%

Source: Oregon Employment Department and Washington Security Department

# Miscellaneous assemblers and fabricators

Total Count: 7955

SOC: 51-2090

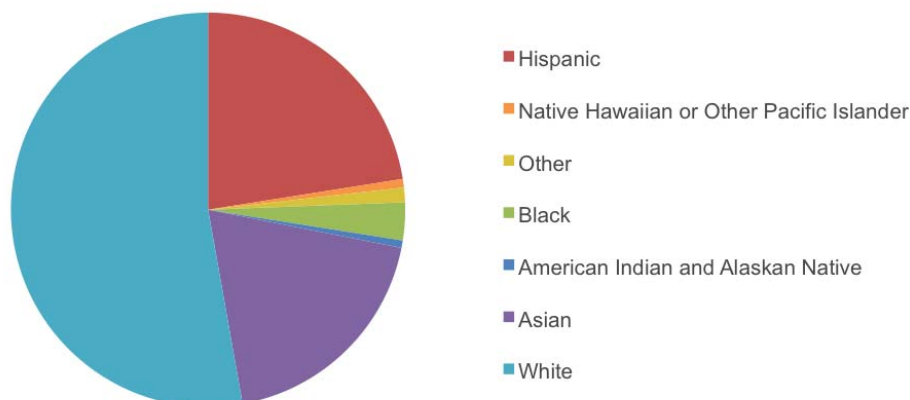
Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Fiberglass Laminators and Fabricators 51-2091	Laminate layers of fiberglass on molds to form boat decks and hulls, bodies for golf carts, automobiles, or other products.	High School Diploma	N/A	Moderate
Team Assemblers 51-2092	Work as part of a team having responsibility for assembling an entire product or component of a product. Team assemblers can perform all tasks conducted by the team in the assembly process and rotate through all or most of them rather than being assigned to a specific task on a permanent basis. May participate in making management decisions affecting the work. Includes team leaders who work as part of the team.	High School Diploma	N/A	Moderate
Timing Device Assemblers and Adjusters 51-2093	Perform precision assembling, adjusting, or calibrating, within narrow tolerances, of timing devices such as digital clocks or timing devices with electrical or electronic components.	N/A	N/A	N/A
Assemblers and Fabricators, All Other 51-2099	All assemblers and fabricators not listed separately.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	22.5%	52.8%	0.7%	1.2%	3.1%	0.6%	19.1%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation



# Miscellaneous assemblers and fabricators

Total Count: 7955

SOC: 51-2090

## Citizenship

U.S. Citizen	77%
Not U.S. Citizen	23%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	33%
Not English Language Learner	67%

Source: American Community Survey, PUMS Data

## Annual Wage Distribution

### Fiberglass Laminators and Fabricators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$21,970	\$25,070	\$29,530	\$36,450	\$43,820
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Team Assemblers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$22,030	\$26,250	\$31,420	\$36,940	\$43,290
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Timing Device Assemblers and Adjusters

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Assemblers and Fabricators, All Other

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$21,020	\$24,640	\$29,850	\$44,150	\$55,510
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	10
Anticipated growth (%)	7%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	483
Anticipated growth (%)	15%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	595
Anticipated growth (%)	17%

Source: Oregon Employment Department and Washington Security Department

# Miscellaneous plant and system operators

Total Count: 185

SOC: 51-8090

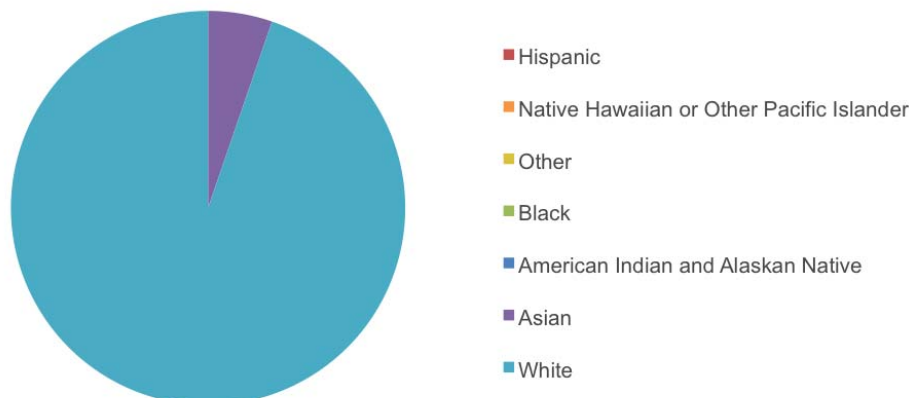
Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Chemical Plant and System Operators 51-8091	Control or operate entire chemical processes or system of machines.	High School Diploma	Post-secondary credential	Long-term
Gas Plant Operators 51-8092	Distribute or process gas for utility companies and others by controlling compressors to maintain specified pressures on main pipelines.	N/A	N/A	N/A
Petroleum Pump System Operators, Refinery Operators, and Gaugers 51-8093	Operate or control petroleum refining or processing units. May specialize in controlling manifold and pumping systems, gauging or testing oil in storage tanks, or regulating the flow of oil into pipelines.	High School Diploma	Post-secondary credential	Long-term
Plant and System Operators, All Other 51-8099	All plant and system operators not listed separately.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	0.0%	94.7%	0.0%	0.0%	0.0%	0.0%	5.3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation



# Miscellaneous plant and system operators

Total Count: 185

SOC: 51-8090

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

## Annual Wage Distribution

### Chemical Plant and System Operators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$34,550	\$49,310	\$54,550	\$59,700	\$67,420
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Gas Plant Operators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Petroleum Pump System Operators, Refinery Operators, and Gaugers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$47,440	\$54,420	\$63,630	\$70,250	\$74,230
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Plant and System Operators, All Other

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Total Occupation	\$29,540	\$37,250	\$52,430	\$59,980	\$74,620
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	18
Anticipated growth (%)	11%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	28
Anticipated growth (%)	11%

Source: Oregon Employment Department and Washington Security Department

Anticipated growth	12
Anticipated growth (%)	9%

Source: Oregon Employment Department and Washington Security Department

# Miscellaneous woodworkers, including model makers and patternmakers

Total Count: 254

SOC: 51-7099

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Miscellaneous woodworkers, including model makers and patternmakers 51-7099	All woodworkers not listed separately.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	N/A	N/A	N/A	N/A	N/A

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	4
<i>Anticipated growth (%)</i>	31%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Occupation</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	N/A
<i>Not U.S. Citizen</i>	N/A

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

<i>English Language Learner</i>	N/A
<i>Not English Language Learner</i>	N/A

Source: American Community Survey, PUMS Data

# Model makers and patternmakers, metal and plastic

Total Count: 75

SOC: 51-4060

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Model Makers, Metal and Plastic 51-4061	Set up and operate machines, such as lathes, milling and engraving machines, and jig borers to make working models of metal or plastic objects. Includes template makers.	High School Diploma	N/A	Moderate
Patternmakers, Metal and Plastic 51-4062	Lay out, machine, fit, and assemble castings and parts to metal or plastic foundry patterns, core boxes, or match plates.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

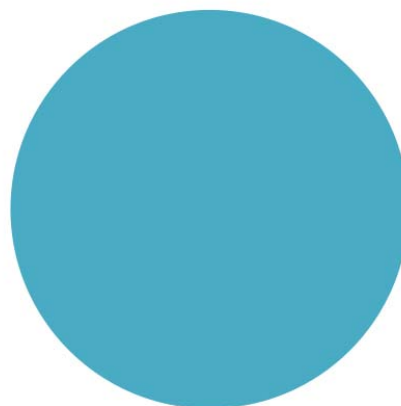
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	100%
<i>Not U.S. Citizen</i>	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

<i>English Language Learner</i>	0%
<i>Not English Language Learner</i>	100%

Source: American Community Survey, PUMS Data

# Model makers and patternmakers, metal and plastic

Total Count: 75

SOC: 51-4060

## Annual Wage Distribution

### Model Makers, Metal and Plastic

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$27,190	\$31,550	\$41,030	\$63,520	\$71,960
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	4
<i>Anticipated growth (%)</i>	20%

Source: Oregon Employment Department and Washington Security Department

### Patternmakers, Metal and Plastic

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$29,630	\$40,000	\$51,430	\$61,910	\$71,030
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	14
<i>Anticipated growth (%)</i>	28%

Source: Oregon Employment Department and Washington Security Department



# Molders and molding machine setters, operators, and tenders, metal and plastic

Total Count: 375      SOC: 51-4070

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Foundry Mold and Coremakers 51-4071	Make or form wax or sand cores or molds used in the production of metal castings in foundries.	High School Diploma	N/A	Moderate
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic 51-4072	Set up, operate, or tend metal or plastic molding, casting, or coremaking machines to mold or cast metal or thermo-plastic parts or products.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

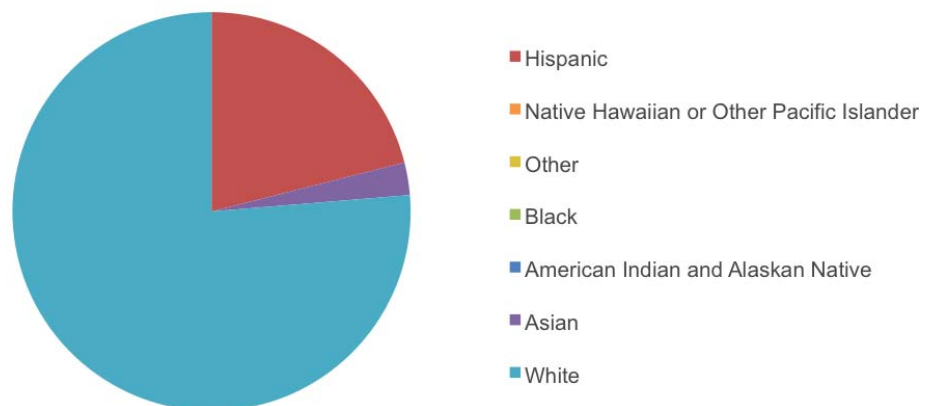
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	21.3%	77.3%	0.0%	0.0%	0.0%	0.0%	2.7%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	86%
<i>Not U.S. Citizen</i>	14%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	25%
<i>Not English Language Learner</i>	75%

Source: American Community Survey, PUMS Data

# Molders and molding machine setters, operators, and tenders, metal and plastic

Total Count: 375

SOC: 51-4070

## Annual Wage Distribution

### Foundry Mold and Coremakers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$22,460	\$26,850	\$34,320	\$41,220	\$46,360
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

### Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$20,890	\$23,540	\$30,940	\$38,280	\$46,390
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	20
<i>Anticipated growth (%)</i>	8%

Source: Oregon Employment Department and Washington Security Department

<i>Anticipated growth</i>	70
<i>Anticipated growth (%)</i>	7%

Source: Oregon Employment Department and Washington Security Department

# Molders, shapers, and casters, except metal and plastic

Total Count: 435

SOC: 51-9195

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Molders, shapers, and casters, except metal and plastic 51-9195	Mold, shape, form, cast, or carve products such as food products, figurines, tile, pipes, and candles consisting of clay, glass, plaster, concrete, stone, or combinations of materials.	High School Diploma	N/A	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$20,980	\$27,110	\$33,760	\$41,900	\$50,930
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	34
Anticipated growth (%)	13%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

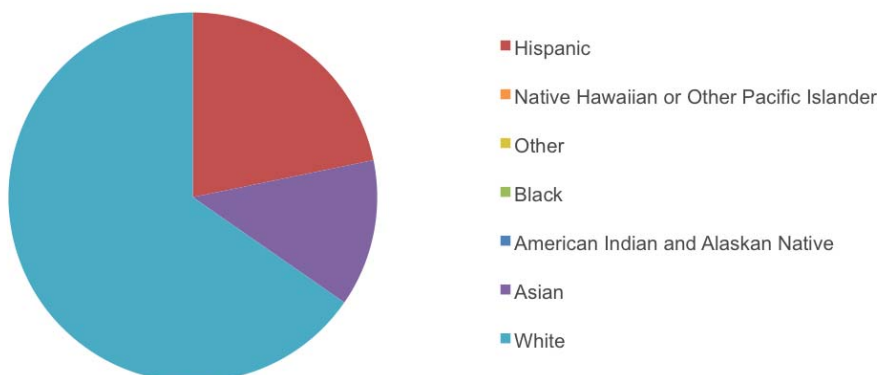
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	22%	66%	0%	0%	0%	0%	13%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	70%
Not U.S. Citizen	30%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	36%
Not English Language Learner	64%

Source: American Community Survey, PUMS Data

# Multiple machine tool setters, operators, and tenders, metal and plastic

Total Count: N/A

SOC: 51-4081

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Multiple machine tool setters, operators, and tenders, metal and plastic 51-4081	Set up, operate, or tend more than one type of cutting or forming machine tool or robot.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Occupation</i>	\$25,280	\$30,310	\$37,150	\$43,770	\$47,380
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

*Anticipated growth* 23

*Anticipated growth (%)* 4%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Occupation</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

*U.S. Citizen* N/A

*Not U.S. Citizen* N/A

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

*English Language Learner* N/A

*Not English Language Learner* N/A

Source: American Community Survey, PUMS Data

# Packaging and filling machine operators and tenders

Total Count: 1350

SOC: 51-9111

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Packaging and filling machine operators and tenders 51-9111	Operate or tend machines to prepare industrial or consumer products for storage or shipment. Includes cannery workers who pack food products.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,400	\$22,350	\$28,590	\$36,340	\$44,050
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 277

Anticipated growth (%) 15%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	34%	39%	0%	1%	7%	0%	19%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

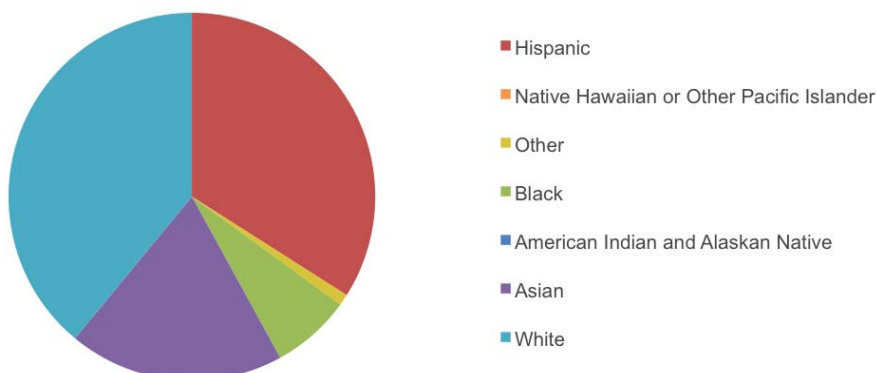
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 52%

Not U.S. Citizen 48%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 56%

Not English Language Learner 44%

Source: American Community Survey, PUMS Data

# Painting workers

Total Count: 1150

SOC: 51-9120

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders 51-9121	Set up, operate, or tend machines to coat or paint any of a wide variety of products including, glassware, cloth, ceramics, metal, plastic, paper, or wood, with lacquer, silver, copper, rubber, varnish, glaze, enamel, oil, or rust-proofing materials.	High School Diploma	N/A	Moderate
Painters, Transportation Equipment 51-9122	Operate or tend painting machines to paint surfaces of transportation equipment, such as automobiles, buses, trucks, trains, boats, and airplanes. Includes painters in auto body repair facilities.	High School Diploma	N/A	Moderate
Painting, Coating, and Decorating Workers 51-9123	Paint, coat, or decorate articles, such as furniture, glass, plateware, pottery, jewelry, toys, books, or leather.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

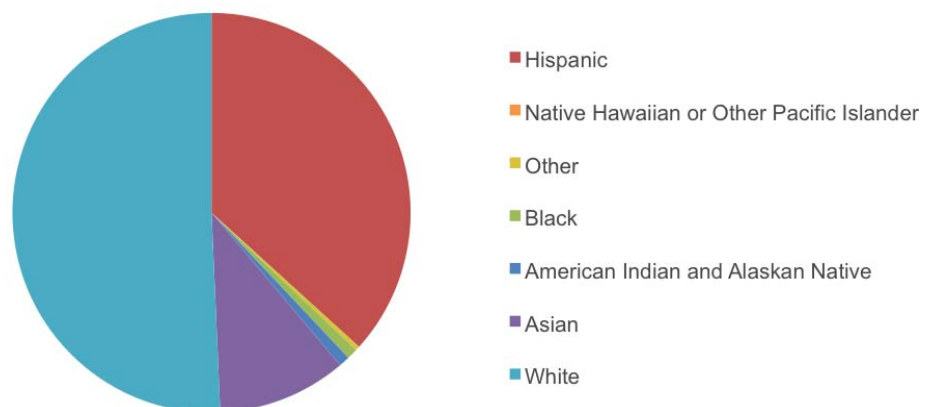
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	36.5%	50.4%	0.0%	0.3%	0.9%	0.9%	10.4%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	71%
<i>Not U.S. Citizen</i>	29%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	45%
<i>Not English Language Learner</i>	55%

Source: American Community Survey, PUMS Data

# Painting workers

Total Count: 1150

SOC: 51-9120

## Annual Wage Distribution

### Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$25,550	\$29,560	\$35,040	\$39,880	\$46,120
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	71
<i>Anticipated growth (%)</i>	12%

Source: Oregon Employment Department and Washington Security Department

### Painters, Transportation Equipment

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$28,290	\$34,790	\$45,570	\$61,020	\$80,620
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	41
<i>Anticipated growth (%)</i>	9%

Source: Oregon Employment Department and Washington Security Department

### Painting, Coating, and Decorating Workers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$24,900	\$27,430	\$31,770	\$36,270	\$38,920
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	26
<i>Anticipated growth (%)</i>	11%

Source: Oregon Employment Department and Washington Security Department

# Paper goods machine setters, operators, and tenders

Total Count: 400

SOC: 51-9196

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Paper goods machine setters, operators, and tenders 51-9196	Set up, operate, or tend paper goods machines that perform a variety of functions, such as converting, sawing, corrugating, banding, wrapping, boxing, stitching, forming, or sealing paper or paperboard sheets into products.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$25,990	\$32,970	\$44,090	\$56,010	\$66,390
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth -192

Anticipated growth (%) -18%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	17%	83%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

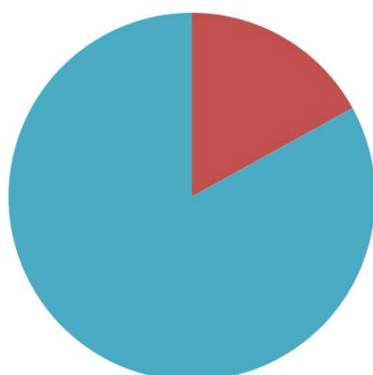
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 96%

Not U.S. Citizen 4%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 26%

Not English Language Learner 74%

Source: American Community Survey, PUMS Data



# Photographic process workers and processing machine operators

Total Count: 550

SOC: 51-9151

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Photographic process workers and processing machine operators 51-9151	Perform work involved in developing and processing photographic images from film or digital media. May perform precision tasks such as editing photographic negatives and prints.	High School Diploma	Post-secondary credential	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$19,840	\$22,830	\$36,800	\$47,500	\$57,410
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	6
Anticipated growth (%)	2%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

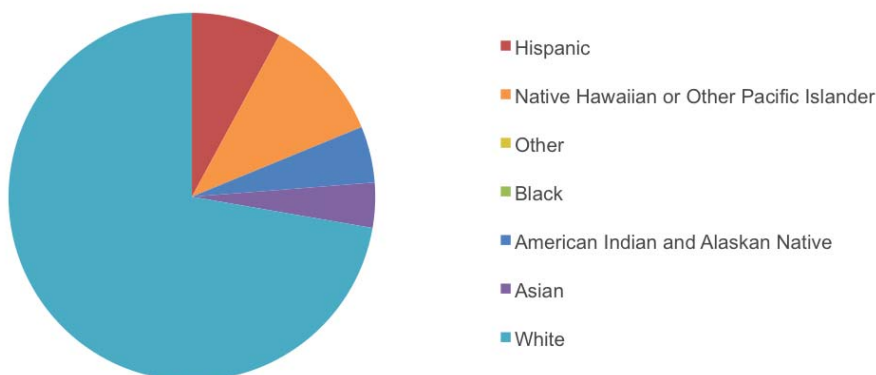
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	8%	73%	11%	0%	0%	5%	4%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	89%
Not U.S. Citizen	11%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Plating and coating machine setters, operators, and tenders, metal and plastic

Total Count: 215

SOC: 51-4193

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Plating and coating machine setters, operators, and tenders, metal and plastic 51-4193	Set up, operate, or tend plating or coating machines to coat metal or plastic products with chromium, zinc, copper, cadmium, nickel, or other metal to protect or decorate surfaces. Includes electrolytic processes.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$30,410	\$32,560	\$35,970	\$42,520	\$55,810
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	3
Anticipated growth (%)	1%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

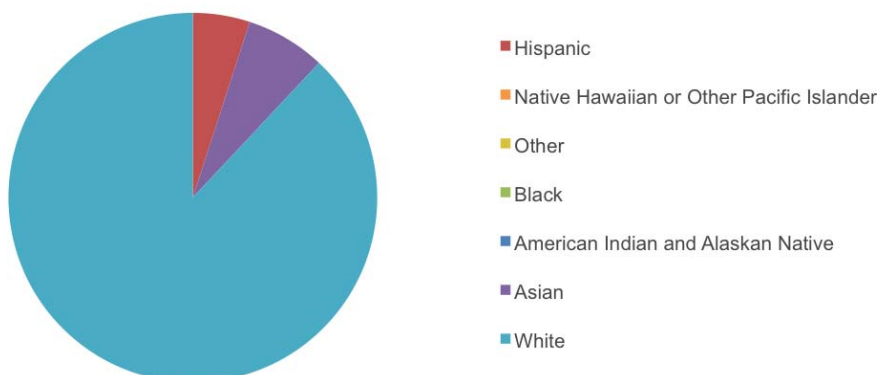
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	5%	88%	0%	0%	0%	0%	7%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	77%
Not U.S. Citizen	23%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	14%
Not English Language Learner	86%

Source: American Community Survey, PUMS Data

# Power plant operators, distributors, and dispatchers

Total Count: 290

SOC: 51-8010

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Nuclear Power Reactor Operators 51-8011	Operate or control nuclear reactors. Move control rods, start and stop equipment, monitor and adjust controls, and record data in logs. Implement emergency procedures when needed. May respond to abnormalities, determine cause, and recommend corrective action.	N/A	N/A	N/A
Power Distributors and Dispatchers 51-8012	Coordinate, regulate, or distribute electricity or steam.	High School Diploma	Bachelor's	Long-term
Power Plant Operators 51-8013	Control, operate, or maintain machinery to generate electric power. Includes auxiliary equipment operators.	Post-secondary credential	N/A	Long-term

Source: Oregon Employment Department

## Race and Ethnicity

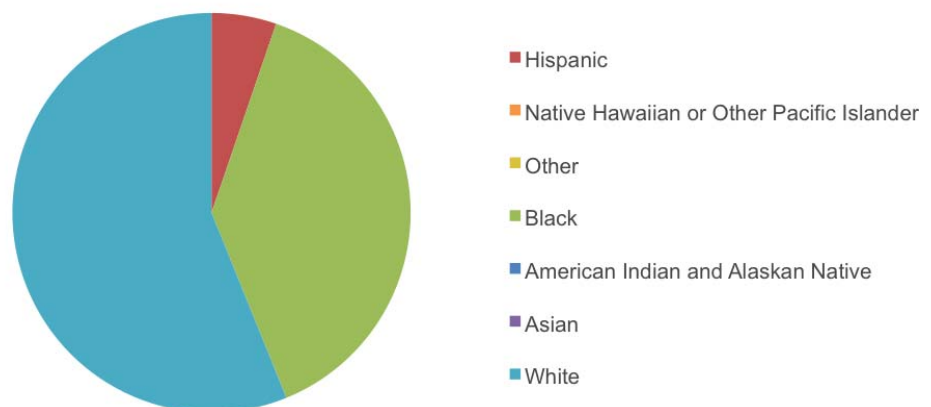
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Total Occupation	5.3%	56.1%	0.0%	0.0%	38.6%	0.0%	0.0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Power plant operators, distributors, and dispatchers

Total Count: 290

SOC: 51-8010

## Annual Wage Distribution

### Nuclear Power Reactor Operators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

### Power Distributors and Dispatchers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$75,260	\$79,520	\$91,230	\$108,300	\$124,460
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	2
<i>Anticipated growth (%)</i>	1%

Source: Oregon Employment Department and Washington Security Department

### Power Plant Operators

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	-3
<i>Anticipated growth (%)</i>	-14%

Source: Oregon Employment Department and Washington Security Department

# Prepress technicians and workers

Total Count: 219

SOC: 51-5111

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Prepress technicians and workers 51-5111	Format and proof text and images submitted by designers and clients into finished pages that can be printed. Includes digital and photo typesetting. May produce printing plates.	High School Diploma	Post-secondary credential	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$29,060	\$36,030	\$45,290	\$56,330	\$65,480
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	-18
Anticipated growth (%)	-10%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

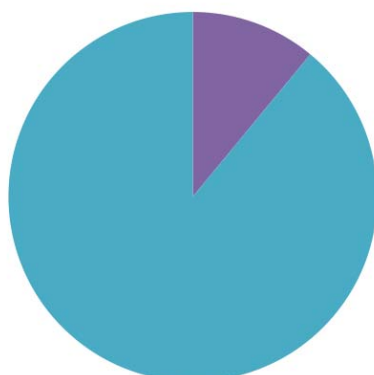
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	89%	0%	0%	0%	0%	11%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Pressers, textile, garment, and related materials

Total Count: **380**

SOC: 51-6021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Pressers, textile, garment, and related materials 51-6021	Press or shape articles by hand or machine.	None	High School Diploma	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$18,830	\$19,140	\$20,410	\$23,120	\$26,980
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	13
Anticipated growth (%)	3%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

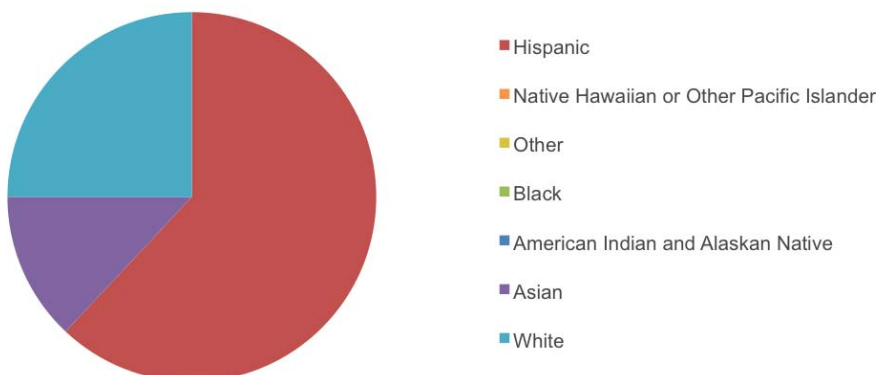
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	62%	25%	0%	0%	0%	0%	13%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	42%
Not U.S. Citizen	58%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	69%
Not English Language Learner	31%

Source: American Community Survey, PUMS Data

# Print binding and finishing workers

Total Count: 195

SOC: 51-5113

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Print binding and finishing workers 51-5113	Bind books and other publications or finish printed products by hand or machine. May set up binding and finishing machines.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$20,680	\$24,700	\$30,910	\$38,770	\$47,480
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth -19

Anticipated growth (%) -3%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	87%	0%	0%	15%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

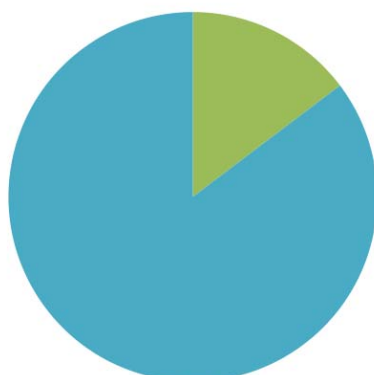
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 92%

Not U.S. Citizen 8%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Printing press operators

Total Count: 1705

SOC: 51-5112

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Printing press operators 51-5112	Set up and operate digital, letterpress, lithographic, flexographic, gravure, or other printing machines. Includes short-run offset printing presses.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$22,800	\$27,390	\$35,210	\$48,450	\$59,140
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth -42

Anticipated growth (%) -2%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	10%	87%	1%	0%	1%	1%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

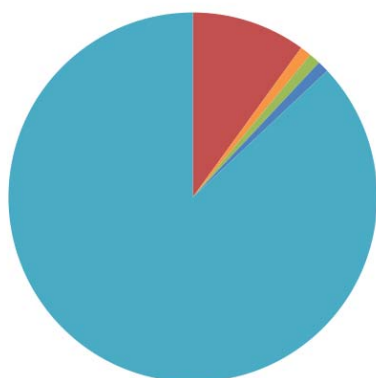
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 97%

Not U.S. Citizen 3%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 31%

Not English Language Learner 69%

Source: American Community Survey, PUMS Data



# Rolling machine setters, operators, and tenders, metal and plastic

Total Count: 95

SOC: 51-4023

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Rolling machine setters, operators, and tenders, metal and plastic 51-4023	Set up, operate, or tend machines to roll steel or plastic forming bends, beads, knurls, rolls, or plate or to flatten, temper, or reduce gauge of material.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$26,290	\$41,140	\$48,510	\$55,350	\$59,630
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	4
Anticipated growth (%)	8%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

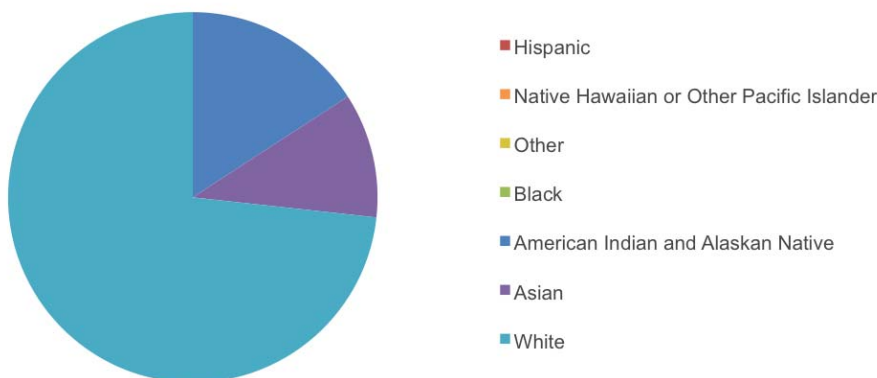
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	74%	0%	0%	0%	16%	11%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	90%
Not U.S. Citizen	11%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	24%
Not English Language Learner	76%

Source: American Community Survey, PUMS Data

# Sawing machine setters, operators, and tenders, wood

Total Count: 365

SOC: 51-7041

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Sawing machine setters, operators, and tenders, wood 51-7041	Set up, operate, or tend wood sawing machines. May operate CNC equipment. Includes lead sawyers.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$21,620	\$25,830	\$32,960	\$40,180	\$45,260
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	16
Anticipated growth (%)	8%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

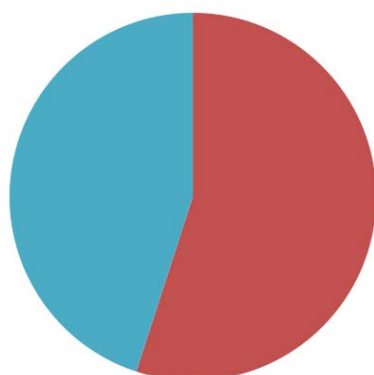
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	55%	45%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	51%
Not U.S. Citizen	49%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	48%
Not English Language Learner	52%

Source: American Community Survey, PUMS Data

# Semiconductor processors

Total Count: N/A

SOC: 51-9141

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Semiconductor processors 51-9141	Perform any or all of the following functions in the manufacture of electronic semiconductors: load semiconductor material into furnace; saw formed ingots into segments; load individual segment into crystal growing chamber and monitor controls; locate crystal axis in ingot using x-ray equipment and saw ingots into wafers; and clean, polish, and load wafers into series of special purpose furnaces, chemical baths, and equipment used to form circuitry and change conductive properties.	High School Diploma	Associate's degree	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$23,250	\$27,530	\$34,420	\$42,750	\$48,920
Portland MSA	\$23,250	\$27,530	\$34,420	\$42,750	\$48,920

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	344
Anticipated growth (%)	12%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	N/A
Not U.S. Citizen	N/A

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	N/A
Not English Language Learner	N/A

Source: American Community Survey, PUMS Data

# Sewing machine operators

Total Count: 1300

SOC: 51-6031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Sewing machine operators 51-6031	Operate or tend sewing machines to join, reinforce, decorate, or perform related sewing operations in the manufacture of garment or nongarment products.	None	High School Diploma	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$18,980	\$19,560	\$22,640	\$28,500	\$36,170
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 43

Anticipated growth (%) 7%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	29%	45%	1%	0%	0%	2%	24%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

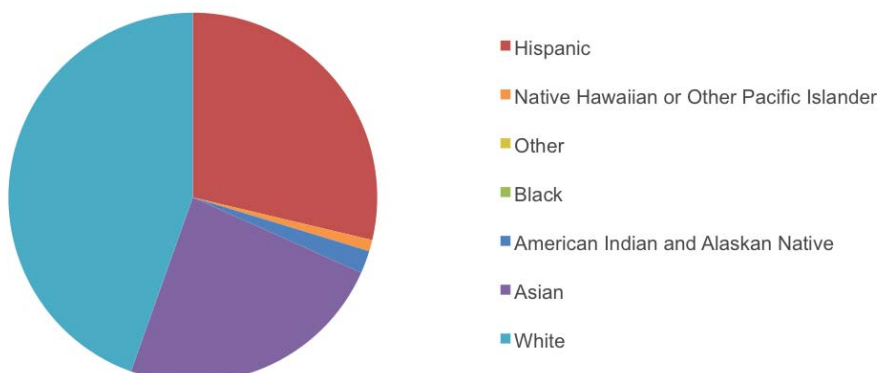
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 62%

Not U.S. Citizen 39%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 58%

Not English Language Learner 43%

Source: American Community Survey, PUMS Data

# Shoe and leather workers and repairers

Total Count: 115

SOC: 51-6041

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Shoe and leather workers and repairers 51-6041	Construct, decorate, or repair leather and leather-like products, such as luggage, shoes, and saddles.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$20,890	\$23,150	\$26,710	\$30,570	\$36,000
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	15
Anticipated growth (%)	12%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

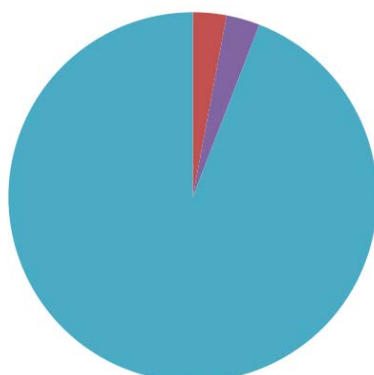
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	3%	96%	0%	0%	0%	0%	3%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	97%
Not U.S. Citizen	4%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Shoe machine operators and tenders

Total Count: 99

SOC: 51-6042

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Shoe machine operators and tenders 51-6042	Operate or tend a variety of machines to join, decorate, reinforce, or finish shoes and shoe parts.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

*Anticipated growth* N/A

*Anticipated growth (%)* N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Occupation</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

*U.S. Citizen* 63%

*Not U.S. Citizen* 37%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

*English Language Learner* 75%

*Not English Language Learner* 25%

Source: American Community Survey, PUMS Data

# Stationary engineers and boiler operators

Total Count: 525

SOC: 51-8021

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Stationary engineers and boiler operators 51-8021	Operate or maintain stationary engines, boilers, or other mechanical equipment to provide utilities for buildings or industrial processes. Operate equipment, such as steam engines, generators, motors, turbines, and steam boilers.	High School Diploma	N/A	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$37,410	\$51,870	\$64,360	\$71,720	\$77,920
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	-7
Anticipated growth (%)	-4%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

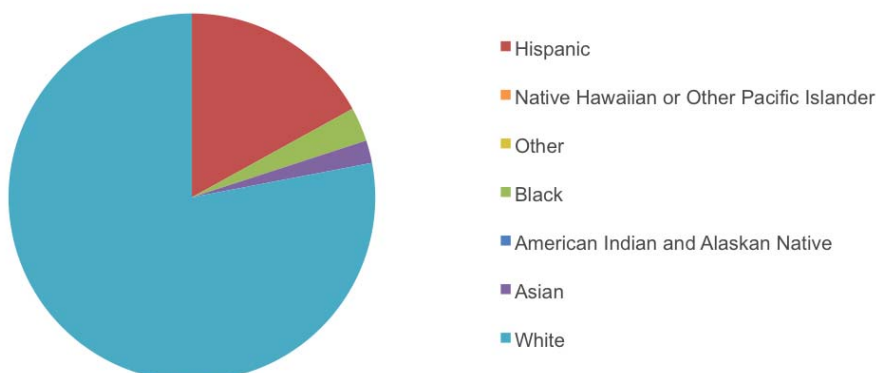
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	17%	78%	0%	0%	3%	0%	2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	91%
Not U.S. Citizen	10%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner	22%
Not English Language Learner	78%

Source: American Community Survey, PUMS Data

# Structural metal fabricators and fitters

Total Count: **379**

SOC: 51-2041

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Structural metal fabricators and fitters 51-2041	Fabricate, position, align, and fit parts of structural metal products. Shipfitters are included in "Layout Workers, Metal and Plastic" (51-4192).	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$27,750	\$32,570	\$39,580	\$46,480	\$55,250
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 206

Anticipated growth (%) 23%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	1%	100%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

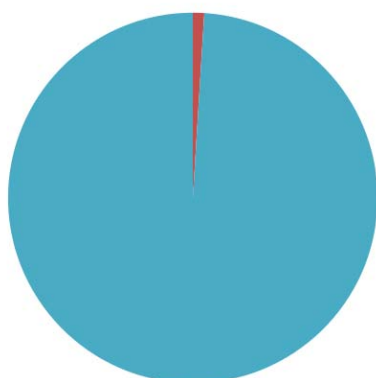
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data



# Tailors, dressmakers, and sewers

Total Count: 680

SOC: 51-6050

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Sewers, Hand 51-6051	Sew, join, reinforce, or finish, usually with needle and thread, a variety of manufactured items.	None	High School Diploma	Moderate
Tailors, Dressmakers, and Custom Sewers 51-6052	Design, make, alter, repair, or fit garments.	None	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

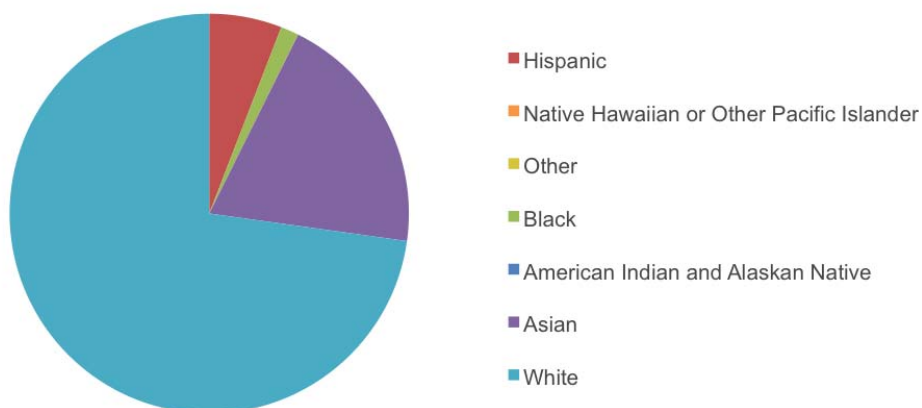
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	5.9%	73.3%	0.0%	0.0%	1.5%	0.0%	20.0%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	92%
<i>Not U.S. Citizen</i>	8%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	39%
<i>Not English Language Learner</i>	61%

Source: American Community Survey, PUMS Data

# Tailors, dressmakers, and sewers

Total Count: **680**

SOC: 51-6050

## Annual Wage Distribution

### Sewers, Hand

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

### Tailors, Dressmakers, and Custom Sewers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$21,600	\$26,710	\$35,960	\$43,460	\$49,860
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	28
<i>Anticipated growth (%)</i>	11%

Source: Oregon Employment Department and Washington Security Department

# Textile knitting and weaving machine setters, operators, and tenders

Total Count: 10

SOC: 51-6063

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Textile knitting and weaving machine setters, operators, and tenders 51-6063	Set up, operate, or tend machines that knit, loop, weave, or draw in textiles.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Occupation</i>	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	N/A
<i>Anticipated growth (%)</i>	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Occupation</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	100%
<i>Not U.S. Citizen</i>	0%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

<i>English Language Learner</i>	N/A
<i>Not English Language Learner</i>	N/A

Source: American Community Survey, PUMS Data

# Textile winding, twisting, and drawing out machine setters, operators, and tenders

Total Count: 15

SOC: 51-6064

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Textile winding, twisting, and drawing out machine setters, operators, and tenders 51-6064	Set up, operate, or tend machines that wind or twist textiles; or draw out and combine sliver, such as wool, hemp, or synthetic fibers. Includes slubber machine and drawing frame operators.	N/A	N/A	N/A

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	0%
Not U.S. Citizen	100%

Source: US Census, Equal Employment Opportunity Tabulation

## English Language Learners

English Language Learner	100%
Not English Language Learner	0%

Source: American Community Survey, PUMS Data

# Tire builders

Total Count: 85

SOC: 51-9197

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Tire builders 51-9197	Operate machines to build tires.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	N/A	N/A	N/A	N/A	N/A
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	N/A
Anticipated growth (%)	N/A

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

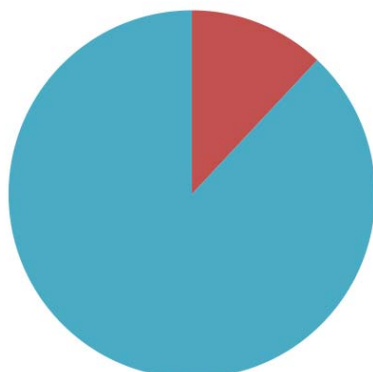
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	12%	88%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	88%
Not U.S. Citizen	12%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Tool and die makers

Total Count: 305

SOC: 51-4111

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Tool and die makers 51-4111	Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges, and machinists' hand tools.	High School Diploma	Post-secondary credential	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$30,240	\$41,530	\$52,370	\$63,230	\$78,170
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	56
Anticipated growth (%)	18%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

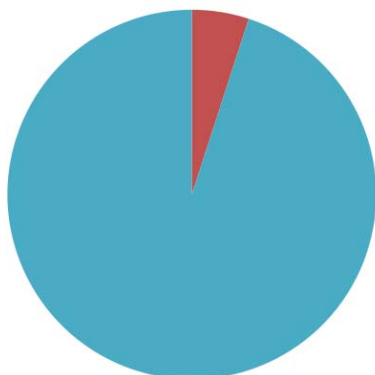
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	5%	95%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	95%
Not U.S. Citizen	5%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	11%
Not English Language Learner	89%

Source: American Community Survey, PUMS Data

# Tool grinders, filers, and sharpeners

Total Count: 125

SOC: 51-4194

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Tool grinders, filers, and sharpeners 51-4194	Perform precision smoothing, sharpening, polishing, or grinding of metal objects.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$27,360	\$35,710	\$44,870	\$54,460	\$77,330
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth	66
Anticipated growth (%)	14%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

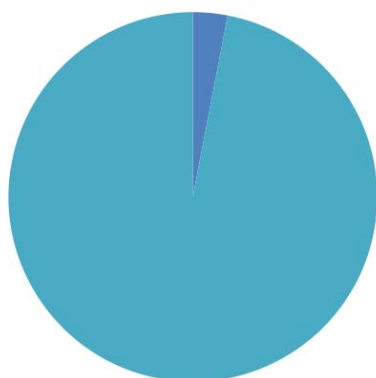
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	96%	0%	0%	0%	3%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen	100%
Not U.S. Citizen	0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner	0%
Not English Language Learner	100%

Source: American Community Survey, PUMS Data

# Upholsterers

Total Count: 280

SOC: 51-6093

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Upholsterers 51-6093	Make, repair, or replace upholstery for household furniture or transportation vehicles.	High School Diploma	N/A	Moderate

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$21,970	\$25,510	\$30,710	\$42,320	\$46,250
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 8

Anticipated growth (%) 5%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	4%	95%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

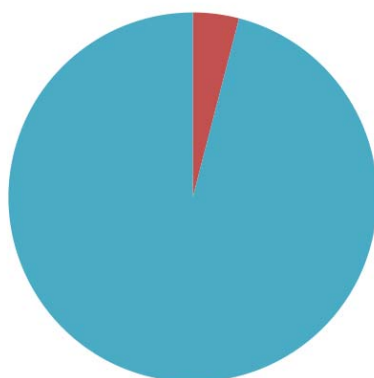
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data



# Water and wastewater treatment plant and system operators

Total Count: 440

SOC: 51-8031

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Water and wastewater treatment plant and system operators 51-8031	Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater.	Post-secondary credential	N/A	Long-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$37,600	\$48,140	\$55,640	\$63,760	\$73,220
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 25

Anticipated growth (%) 7%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	0%	98%	0%	0%	0%	0%	2%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

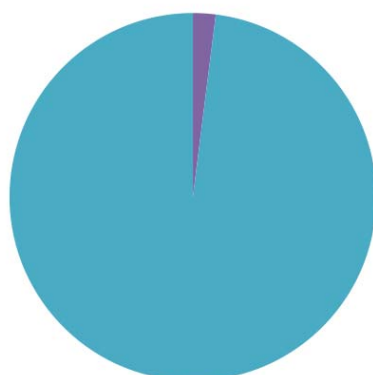
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 100%

Not U.S. Citizen 0%

Source: US Census, Equal Employment Opportunity Tabulation



- Hispanic
- Native Hawaiian or Other Pacific Islander
- Other
- Black
- American Indian and Alaskan Native
- Asian
- White

## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data

# Welding, soldering, and brazing workers

Total Count: 4390

SOC: 51-4120

Title	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Welders, Cutters, Solderers, and Brazers 51-4121	Use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.	High School Diploma	Post-secondary credential	Moderate
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders 51-4122	Set up, operate, or tend welding, soldering, or brazing machines or robots that weld, braze, solder, or heat treat metal products, components, or assemblies. Includes workers who operate laser cutters or laser-beam machines.	High School Diploma	Post-secondary credential	Moderate

Source: Oregon Employment Department

## Race and Ethnicity

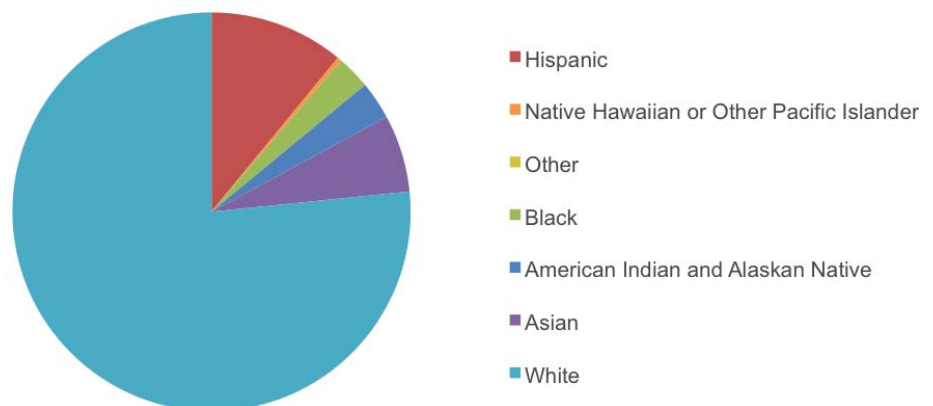
	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
<i>Total Occupation</i>	10.9%	76.6%	0.3%	0.0%	2.7%	3.1%	6.3%
<i>Portland MSA</i>	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

<i>U.S. Citizen</i>	88%
<i>Not U.S. Citizen</i>	12%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

<i>English Language Learner</i>	17%
<i>Not English Language Learner</i>	83%

Source: American Community Survey, PUMS Data

# Welding, soldering, and brazing workers

Total Count: 4390

SOC: 51-4120

## Annual Wage Distribution

### Welders, Cutters, Solderers, and Brazers

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$28,560	\$34,430	\$41,280	\$46,820	\$54,830
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

<i>Anticipated growth</i>	441
<i>Anticipated growth (%)</i>	17%

Source: Oregon Employment Department and Washington Security Department

### Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
<i>Total Occupation</i>	\$30,890	\$34,640	\$41,000	\$45,960	\$49,190
<i>Portland MSA</i>	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

<i>Anticipated growth</i>	98
<i>Anticipated growth (%)</i>	30%

Source: Oregon Employment Department and Washington Security Department

# Woodworking machine setters, operators, and tenders, except sawing

Total Count: 305

SOC: 51-7042

Title (SOC Code)	Occupation Description	Educational Requirement	Competitive Advantage	On-the-job training/other requirements
Woodworking machine setters, operators, and tenders, except sawing 51-7042	Set up, operate, or tend woodworking machines, such as drill presses, lathes, shapers, routers, sanders, planers, and wood nailing machines. May operate CNC equipment.	High School Diploma	N/A	Short-term

Source: Oregon Employment Department

## Annual Wage Distribution

	10th percentile	25th percentile	Median wage	75th percentile	90th percentile
Occupation	\$22,580	\$26,620	\$31,030	\$38,640	\$46,670
Portland MSA	\$19,840	\$25,750	\$38,650	\$60,980	\$91,690

Source: Bureau of Labor Statistics, U.S. Department of Labor, Occupational Employment Statistics

## Employment Projections

Anticipated growth 38

Anticipated growth (%) 8%

Source: Oregon Employment Department and Washington Security Department

## Race and Ethnicity

	Hispanic	White	Native Hawaiian or Other Pacific Islander	Other	Black	American Indian and Alaskan Native	Asian
Occupation	33%	66%	0%	0%	0%	0%	0%
Portland MSA	9.3%	79.6%	0.4%	0.5%	2.6%	1.4%	6.3%

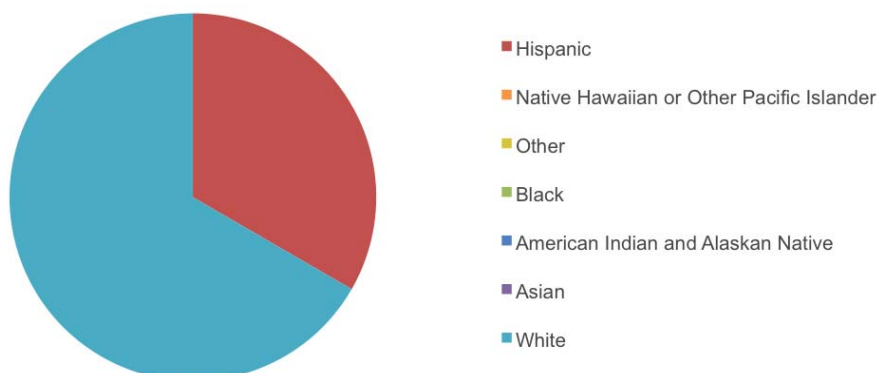
Source: US Census, Equal Employment Opportunity Tabulation

## Citizenship

U.S. Citizen 73%

Not U.S. Citizen 27%

Source: US Census, Equal Employment Opportunity Tabulation



## English Language Learners

English Language Learner 0%

Not English Language Learner 100%

Source: American Community Survey, PUMS Data