



2022

CONSTRUCTION LABOR MARKET REPORT

THE COLUMBIA-WILLAMETTE WORKFORCE COLLABORATIVE
Working together to develop and support regional talent



workforce
SOUTHWEST WASHINGTON

work.
systems

TABLE OF CONTENTS

INTRODUCTION	3
OVERVIEW	5
MAJOR EMPLOYERS	6
CONCENTRATION	7
EMPLOYMENT TRENDS	8
CHARACTERISTICS OF WORKFORCE	9
OCCUPATIONS	11
EDUCATIONAL REQUIREMENTS	14
WAGES	16
TURNOVER	17
CURRENT SUPPLY	18
CURRENT DEMAND	23
LONG-TERM DEMAND	24
APPENDIX	25

COVER IMAGE: Oregon Tradeswomen

INTRODUCTION

► IN 2016, THE COLUMBIA-WILLAMETTE WORKFORCE COLLABORATIVE (CWWC)

published its first data report about the Construction industry. This report introduced the community to Construction as a high growth industry in the Portland-Vancouver Metro Area and led CWWC to building a Construction Workforce plan which launched in June 2017.

Since the 2016 report (which included data from 2013, 2014, and 2015), Construction has added more than 19,800 jobs—more than any other industry. Construction has the second highest rate of growth, with a 33 percent increase in the number of jobs between 2015 and 2021.

Construction experienced a slight dip during the COVID-19 recession, but quickly recovered. The industry is expected to add more than 13,200 jobs over the next decade, a growth rate of 17 percent.

The jobs being added in the Construction industry are high wage, averaging over \$30 an hour. Current and future building trends, both public and private, are rapidly increasing the demand for skilled tradespeople while one-fifth of the area's Construction workforce is at, or nearing, retirement age. The region has seen apprenticeship program completers in common Construction occupations (electricians, laborers, carpenters, etc.) steadily increase over the past decade, but the numbers remain well below what is needed to satisfy industry demand.

The information in this report will further inform the implementation of the recently completed 2021–2023 Regional Construction Workforce Plan. Updating the Construction Workforce Plan allowed for the identification of common industry workforce challenges, the opportunity to coalesce around shared goals and resources, and align the efforts of the public workforce system to make a greater overall impact for the Construction sector in our region.

During the convenings around the 2019–2021 plan update, companies identified several areas of focus for a Construction workforce plan, indicating a strong emphasis be placed on better marketing the career opportunities, recruiting non-traditional Construction workers, creating industry support tools such as mentoring to retain their workforce, and helping industry strengthen best practices for recruiting and screening the best candidates.

The CWWC works with employers and industry experts throughout the two-year plan educating influencers with data-driven outlooks for careers in Construction, allocating resources for pre-apprenticeship, training, and screening capacity for women and people of color, and promoting and providing standardized tools for jobsite culture success. Meeting with employers quarterly allows for regular engagement with the industry so that workforce development strategies adapt as the industry changes.

ABOUT THE COLUMBIA-WILLAMETTE WORKFORCE COLLABORATIVE

The Columbia-Willamette Workforce Collaborative (Collaborative) is a partnership between Clackamas Workforce Partnership, Workforce Southwest Washington and Worksystems: the three Workforce Development Boards covering the Portland-Vancouver Metropolitan Area. The Collaborative delivers a unified approach to serving industry, supporting economic development, and guiding public workforce training investments to better address the needs of our combined labor shed. We know that people are willing to travel throughout the region for the best opportunities and that employers need the most qualified workers regardless of where they live. By working together, we can cultivate our regional talent pool and build the foundation for a strong economy.

ABOUT THE GEOGRAPHIES

Throughout this report, data is often provided for all nine counties found on the map at right. These nine counties, when combined, are referred to as the Portland-Vancouver Metro Area (PVMA). The PVMA is a combination of the seven-county Portland-Vancouver-Hillsboro Metro Statistical Area (MSA) and two additional counties served by the Collaborative—Cowlitz and Wahkiakum counties in Southwest Washington.



Columbia, Yamhill, and Skamania counties are not a part of the Collaborative’s geography, however, remain an important part of this report as they are included with the Portland MSA. In instances where data is not available for the nine-county region combined, data instead is provided for the seven-county MSA.

ABOUT THIS REPORT

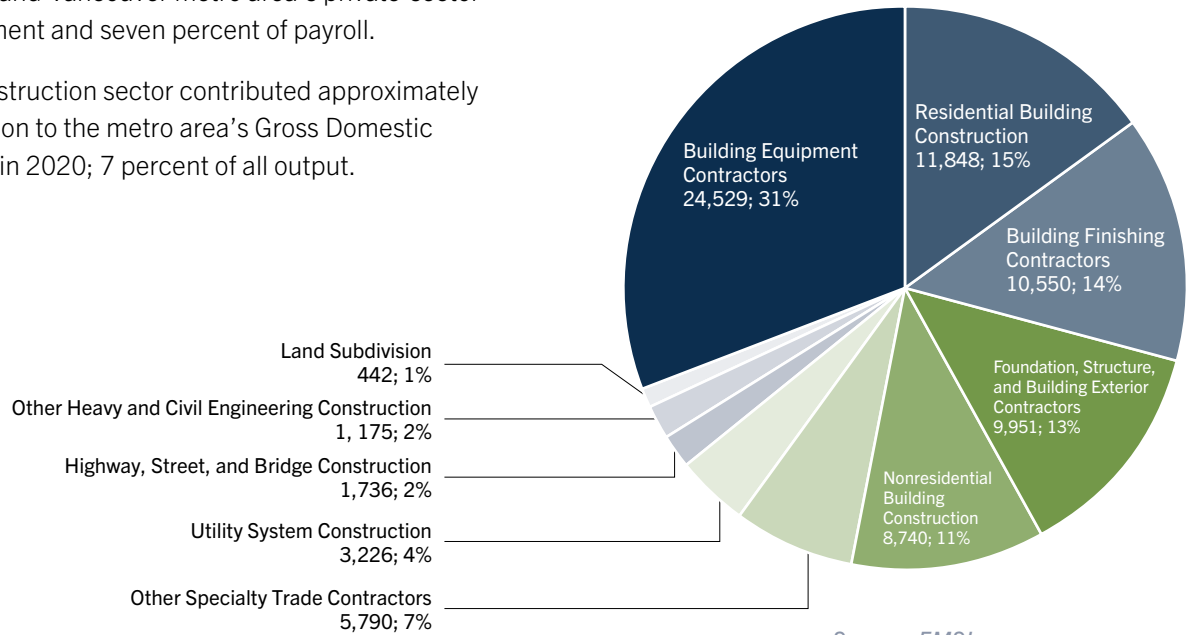
The Collaborative is focused on aligning and investing resources to support the workforce needs of four sectors: Advanced Manufacturing, Healthcare, Technology, and Construction. Sectors are chosen based on factors such as their economic significance to the region, current number of openings and job growth projections, average wages that support self-sufficiency, and career ladder opportunities across the skill continuum. By examining labor market intelligence (such as the data contained in this report) and vetting the information with business partners, we are able to better understand industry trends, identify current and emergent workforce needs, and develop customized solutions for each sector.

OVERVIEW

With over 77,000 jobs and a payroll of \$6.8 billion, Construction accounts for nearly seven percent of the Portland-Vancouver metro area's private-sector employment and seven percent of payroll.

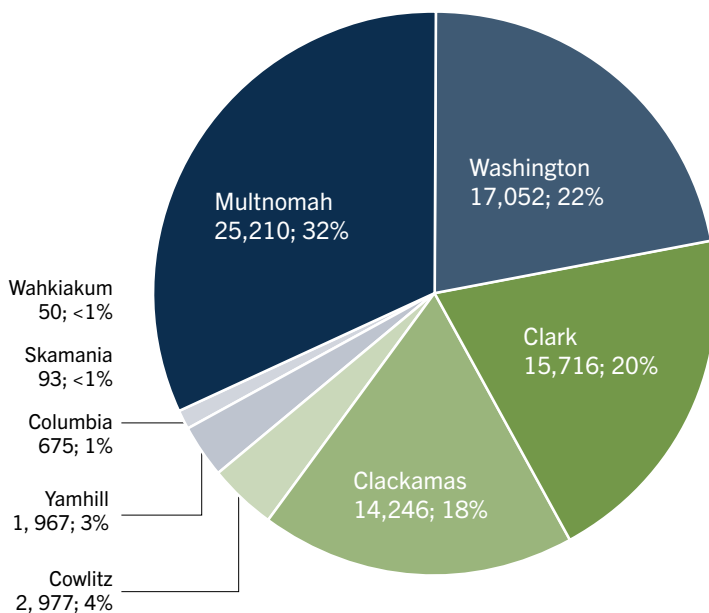
The Construction sector contributed approximately \$7.9 billion to the metro area's Gross Domestic Product in 2020; 7 percent of all output.

FIGURE 1: Construction Employment by Component, Greater Portland Region, 2020



Source: EMSI

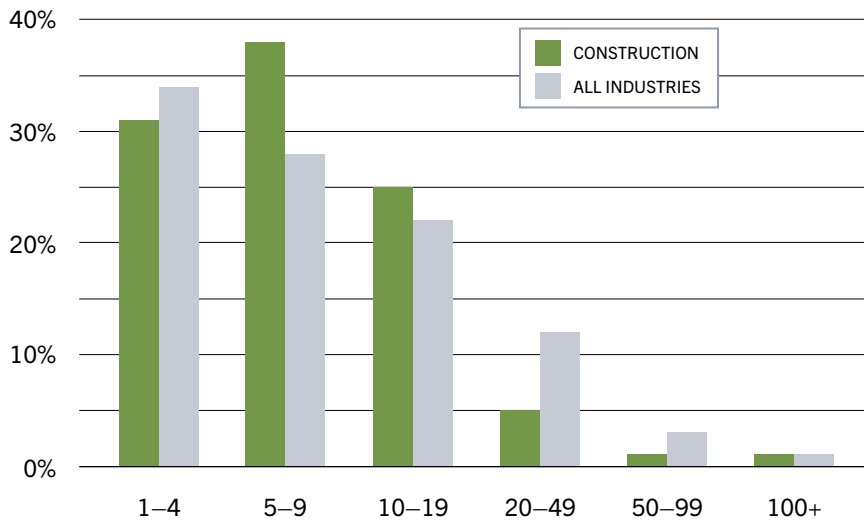
FIGURE 2: Construction Employment by County, Greater Portland Region, 2020



Multnomah, Clark, and Washington counties account for nearly three out of every four Construction workers in the Portland-Vancouver metro area.

Source: EMSI

**FIGURE 3: Firms by Class Size,
Construction, Greater Portland Region, 2020**



Source: EMSI

There are roughly 9,600 Construction establishments in the region.

The average size of a Construction firm is slightly smaller than that for all firms: 10 employees per company versus 15 overall.

Sixty-four percent of the region’s Construction employment is in firms employing fewer than 20 people.

MAJOR EMPLOYERS

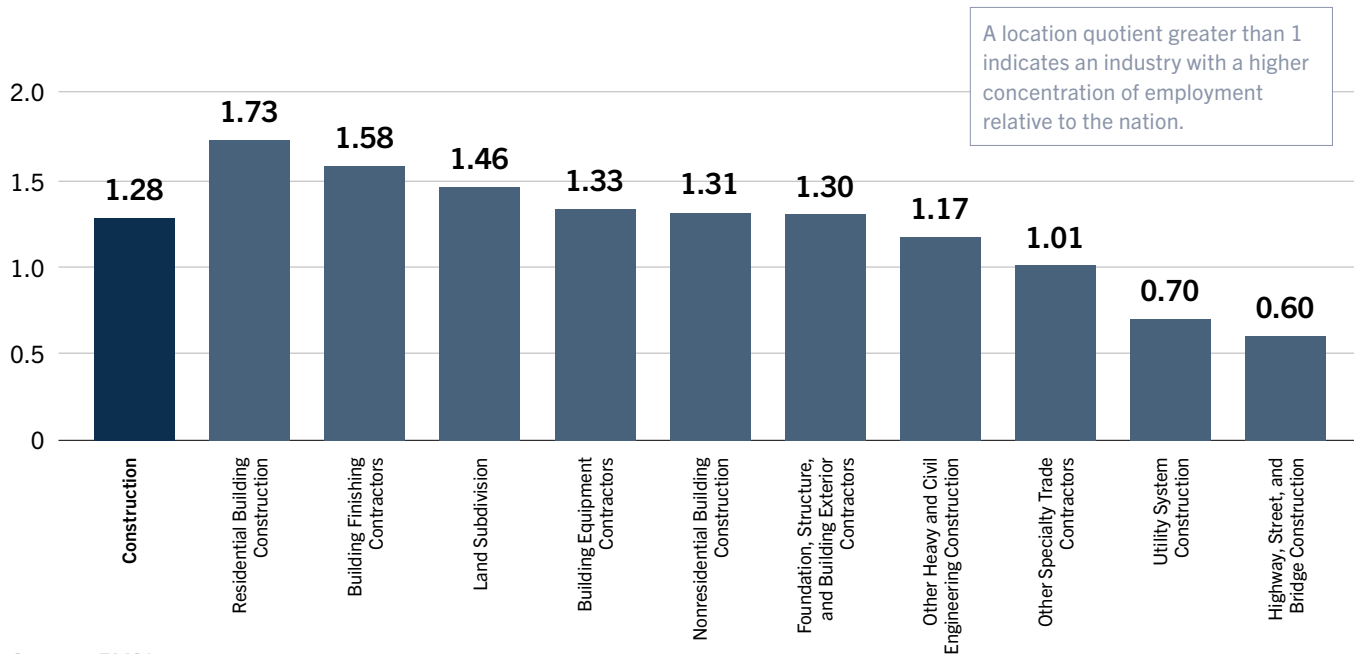
TABLE 1: Major Employers, by Business Size and Sales Volume, Greater Portland Region, 2020

ANDERSEN CONSTRUCTION CO	LEASE CRUTCHER LEWIS
CHRISTENSON ELECTRIC INC	MILLENNIUM BUILDING SERVICES
DEACON CORP	NEIL KELLY
ELECTRICAL CONSTRUCTION CO	PRAIRIE ELECTRIC
FORTIS CONSTRUCTION	SNYDER ROOFING OF OREGON LLC
GREENBERRY INDUSTRIAL	STREIMER SHEET METAL WORKS INC
HARDER MECHANICAL CONTRACTORS INC	SUN STEEL LLC
HOFFMAN CONSTRUCTION CO	TIMBER TECHNOLOGIES LLC
J R JOHNSON INC GENERAL CONTRACTOR	WILSON CONSTRUCTION CO

Source: DatabaseUSA

CONCENTRATION

FIGURE 4: Location Quotients, Construction and Components, Greater Portland Region, 2020



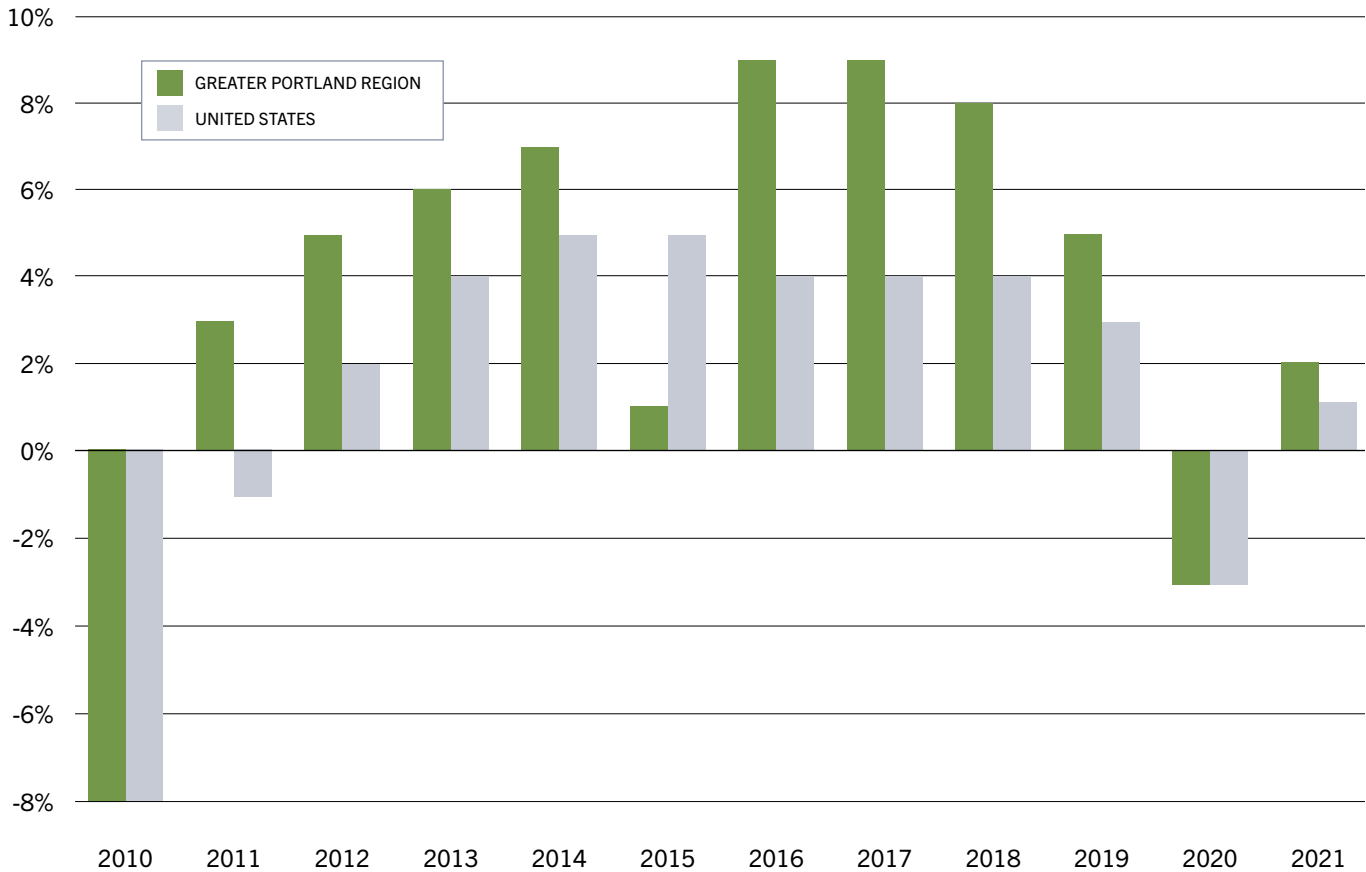
Source: EMSI

Location quotients (LQ) are used to measure a sector's employment concentration in an area. A number greater than one indicates a higher concentration of employment relative to the nation. Construction employment is slightly more concentrated in the Greater Portland region compared to the nation largely due to our size, and our population and job growth which fuels demand for housing and commercial space.

Highway, Street, and Bridge Construction and Utility System Construction have a low HQ. These subsectors represent less than 7 percent of regional construction employment. Construction jobs are found throughout the area, but are slightly less concentrated in Skamania County (0.92), Multnomah County (1.01), and Yamhill County (1.01) and more concentrated in Clackamas (1.74) and Clark (1.89) counties.

EMPLOYMENT TRENDS

FIGURE 5: Construction Annual Growth Rates, Greater Portland Region, 2010–2021



Source: EMSI

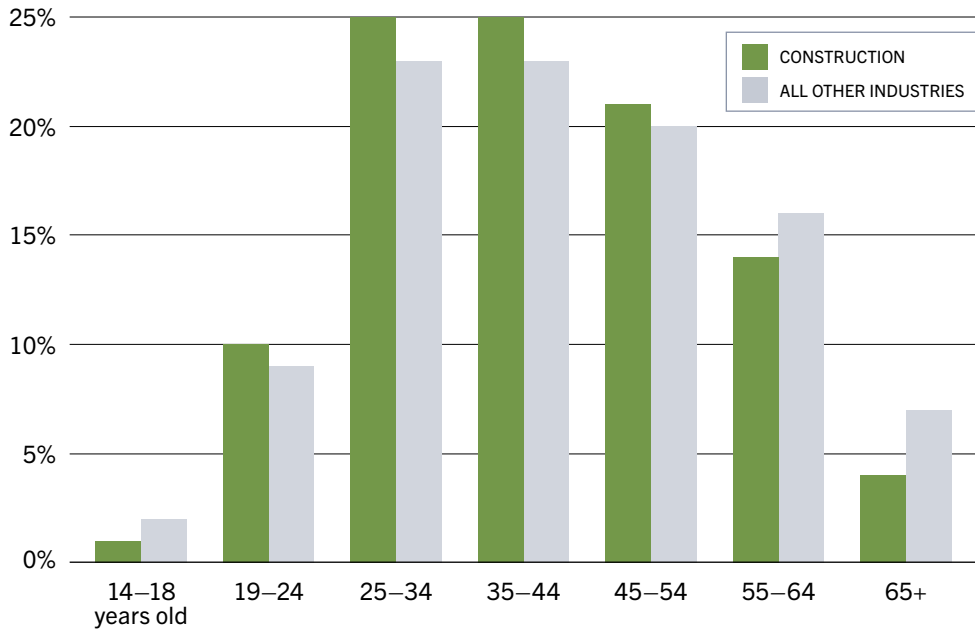
Construction experienced positive growth every year between the end of the Great Recession and the COVID-19 Economic Crisis. With the exception of 2015, Construction grew at a faster pace in Portland than in the United States.

During the COVID-19 economic crisis, Oregon designated Construction as an essential industry. Due to the designation, Construction work was allowed to continue. The sector did experience negative growth during 2020 but it was less impacted than other economic sector.

In 2021, Construction rebounded more quickly in the Portland than in the United States.

CHARACTERISTICS OF WORKFORCE

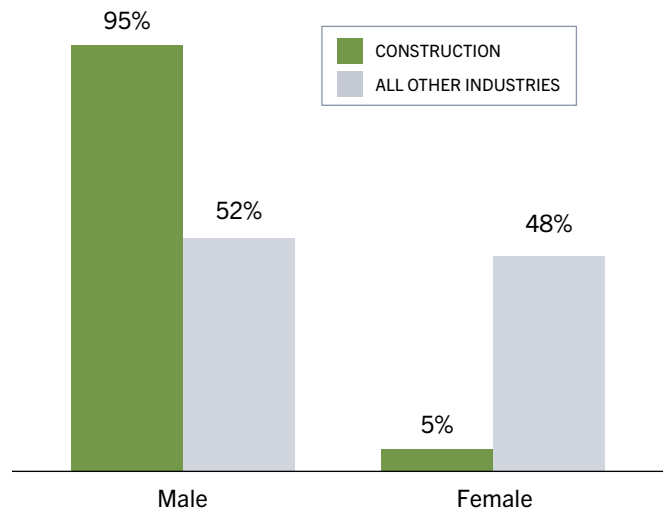
FIGURE 6: Construction Employment, by Age, Greater Portland Region, 2020



The Construction workforce is slightly younger than the total workforce. Nearly one-fifth of the region's Construction workforce is at, or nearing, retirement age (55 or older). More young workers will be needed to not only replace upcoming retirements but also to address new growth in the region as well.

Source: EMSI

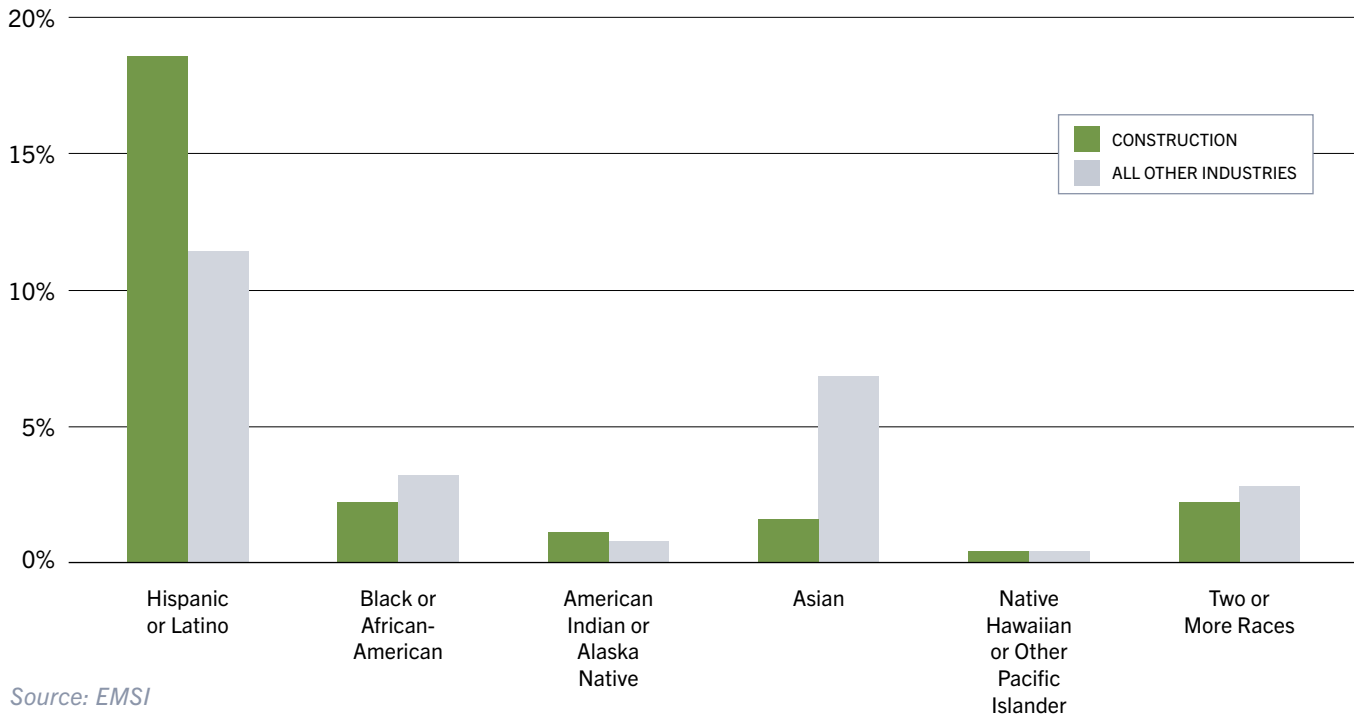
FIGURE 7: Construction Employment, by Sex, Greater Portland Region, 2020



The Construction sector is overwhelmingly male; 95 percent of the workforce compared to 52 percent for all other industries.

Source: EMSI

FIGURE 8: Construction Employment, by Race and Ethnicity, Greater Portland Region, 2020



Source: EMSI



Oregon Tradeswomen

Workers who identify as white are 74 percent of both the total workforce and the Construction workforce in the greater Portland region.

Workers who identify as Hispanic comprise a greater share of the workforce compared to all other industries, while workers who identify as Black or African American and Asian are underrepresented.

Recognizing the historic underrepresentation of people of color and women in Construction, the industry has adopted and is committed to increasing diversity as a primary goal.

OCCUPATIONS

TABLE 2: Top Construction Occupations (All Industries), Greater Portland Region, 2020–2030

OCCUPATION	2020 JOBS	2030 JOBS	AVG. ANNUAL OPENINGS	ANNUAL REPLACEMENT JOBS	ESTIMATED NEW JOBS
Carpenters	10,995	12,275	1,209	1,069	140
Construction Laborers	8,726	10,556	1,119	935	183
Electricians	7,330	8,974	1,001	837	164
First-Line Supervisors of Construction Trades and Extraction Workers	5,055	5,989	607	513	94
Plumbers, Pipefitters, and Steamfitters	4,619	5,296	572	503	69
Painters, Construction and Maintenance	2,818	3,208	305	257	48
Operating Engineers and Other Construction Equipment Operators	2,663	2,974	325	293	31
Sheet Metal Workers	2,344	2,511	244	223	21
Roofers	2,162	2,480	260	224	36
Cement Masons and Concrete Finishers	2,082	2,260	216	196	20
Drywall and Ceiling Tile Installers	967	1,052	96	80	17

Source: EMSI

The top Construction occupations are expected to grow faster than anticipated. New to the list are cement masons and concrete finishers and drywall and ceiling tile installers.

Between 2020 and 2030, the largest Construction occupations are expected to add more than 6,000 jobs. The jobs will be a combination of new jobs and replacement jobs, available when workers retire or change jobs.

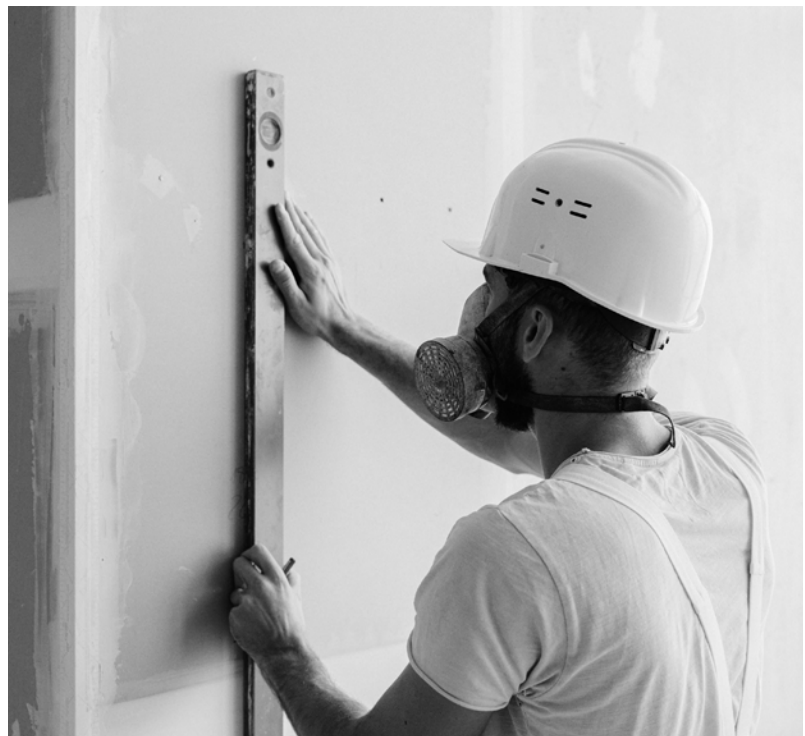


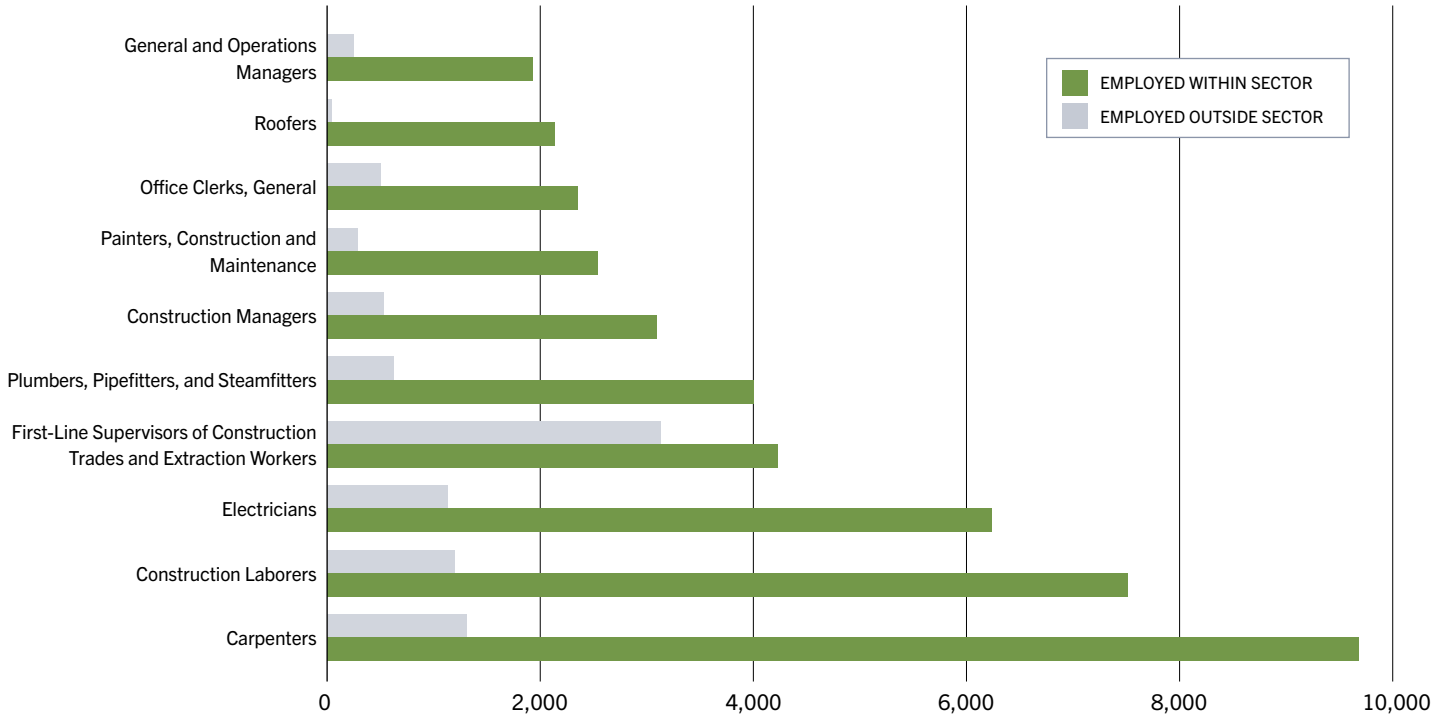
TABLE 3: Top Construction Occupations (Sector), Greater Portland Region, 2020

DESCRIPTION	EMPLOYED IN INDUSTRY GROUP (2020)	% OF TOTAL JOBS IN INDUSTRY GROUP (2020)	MEDIAN HOURLY EARNINGS	LOCATION QUOTIENT	TYPICAL ENTRY LEVEL EDUCATION	TYPICAL ON-THE-JOB TRAINING
Carpenters	9,683	12.4%	\$27.06	1.87	High School Diploma or Equivalent	Apprenticeship
Construction Laborers	7,515	9.6%	\$21.61	1.08	No formal educational credential	Apprenticeship
Electricians	6,231	8.0%	\$37.24	1.32	High School Diploma or Equivalent	Apprenticeship
First-Line Supervisors of Construction Trades and Extraction Workers	4,223	5.4%	\$39.05	0.99	High School Diploma or Equivalent	None
Plumbers, Pipefitters, and Steamfitters	4,000	5.1%	\$38.20	1.24	High School Diploma or Equivalent	Apprenticeship
Construction Managers	3,089	4.0%	\$51.22	1.51	Bachelor's Degree	Moderate-term on-the-job training
Painters, Construction and Maintenance	2,533	3.2%	\$19.37	1.53	No formal educational credential	Apprenticeship
Office Clerks, General	2,344	3.0%	\$18.52	0.86	High School Diploma or Equivalent	Short-term on-the-job training
Roofers	2,129	2.7%	\$28.04	2.02	No formal educational credential	Apprenticeship
General and Operations Manager	1,927	2.5%	\$49.22	1.08	Bachelor's Degree	None
Cement Masons and Concrete Finishers	1,924	2.5%	\$24.72	1.26	No formal educational credential	Apprenticeship
Operating Engineers and Other Construction Equipment Operators	1,745	2.2%	\$30.12	0.80	High School Diploma or Equivalent	Moderate-term on-the-job training
Sheet Metal Workers	1,725	2.2%	\$30.52	2.17	High School Diploma or Equivalent	Apprenticeship
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	1,700	2.2%	\$26.80	0.75	Postsecondary nondegree award	Long-term on-the-job training

Source: EMSI

The top ten occupations make up over half of total employment. Occupations new to the list include cement masons and general and operations managers.

FIGURE 9: Construction Occupations within Sector vs. Outside of Sector, Greater Portland Region, 2020



Source: EMSI

Roughly 160 occupations are represented in Construction.

The top ten largest Construction occupations are relatively unique to the sector and not often found elsewhere in the economy.



EDUCATIONAL REQUIREMENTS

Some Construction occupations require supplemental industry-specific certifications through short-term training. These can include HVAC, welding, or management training, which typically are offered through local community colleges.

TABLE 4: Training and Degree Graduate Completer Data for Construction-Related Programs, Greater Portland Region, 2020

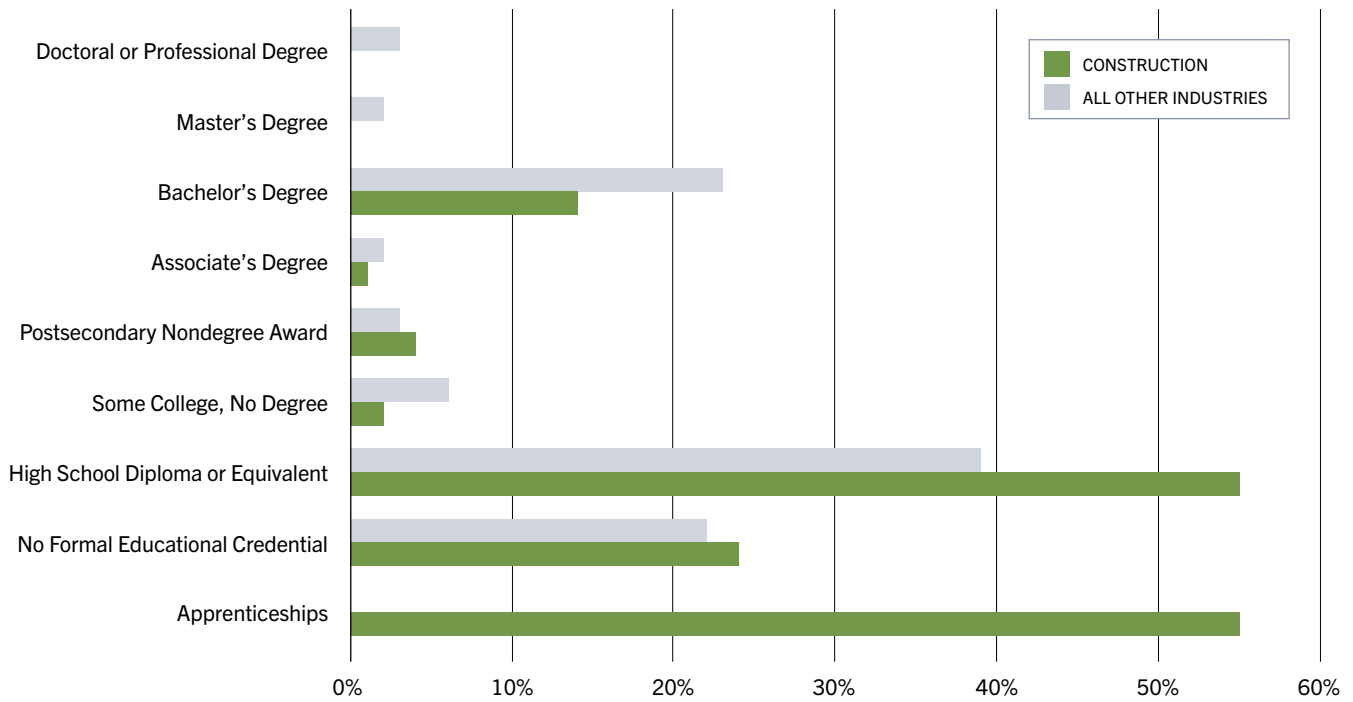
DESCRIPTION	2020 COMPLETIONS	AWARD LESS THAN 2 YEARS	AWARD AT LEAST 2 AND LESS THAN 4 YEARS	ASSOCIATE'S	BACHELOR'S
Construction Trades, General	54	29	0	25	0
Electrical and Power Transmission Installation/Installer, General	99	72	0	27	0
Lineworker	0	0	0	0	0
Building/Construction Site Management/Manager	15	0	0	15	0
Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician	189	179	0	10	0
Industrial Mechanics and Maintenance Technology/Technician	31	4	0	27	0
Welding Technology/Welder	266	215	0	51	0
Operations Management and Supervision	16	10	0	6	0
TOTAL	670	509	0	161	0

Source: EMSI



Oregon Tradeswomen

FIGURE 10: Construction Employment, by Typical Education Level, Greater Portland Region, 2020



Source: EMSI

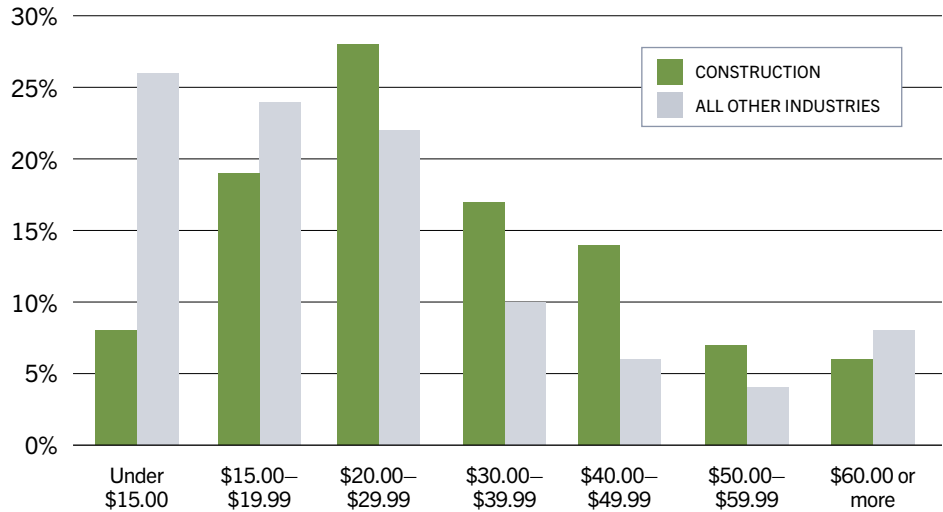
Nearly eight out of every ten Construction jobs require a high school diploma or GED as point of entry.

Thirty-two Construction trades require workers to complete a registered apprenticeship. They account for 55 percent of all Construction jobs in the greater Portland region.

Fifteen percent call for an Associate's degree or higher; a significantly smaller proportion than for all other industries (30%).

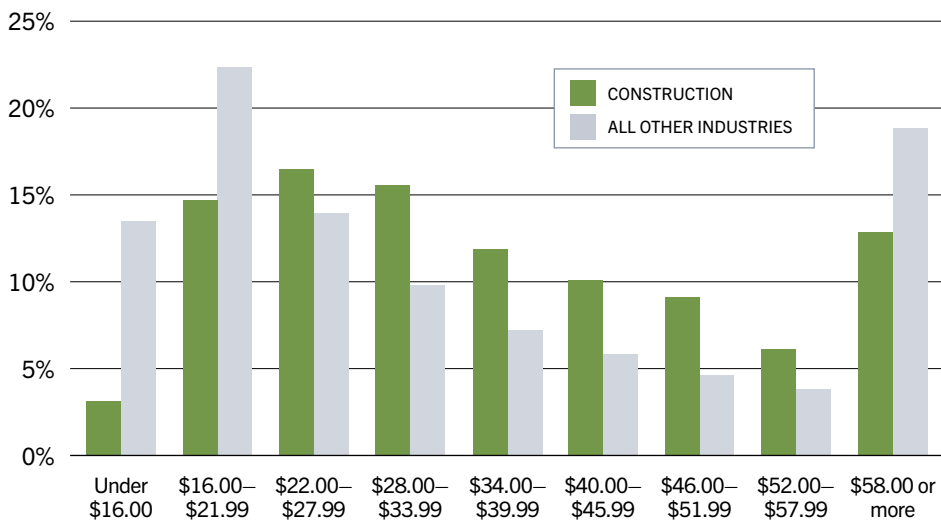
FIGURE 11: Construction Share of Employment by Hourly Wage, Oregon, 2020

Construction’s median hourly wage is \$27.50 (2020); 38 percent higher than that of all industries (\$19.97). In Oregon, 44 percent of Construction workers earn \$30 per hour or more.



Source: Oregon Employment Department

FIGURE 12: Construction Share of Employment by Hourly Wage, Washington, 2020



In Washington, 50 percent of Construction workers earn \$34 per hour or more.

Source: Washington Office of Employment Security

TURNOVER

Turnover refers to the change in the workforce due to employee separations and hiring. Construction has more turnover than the overall economy. Highway, Street, and Bridge Construction and Foundation, Structure, and Building Exterior Contractors have the highest rates of turnover (111%).

The higher rate of turnover relative to all other industries is likely due to the nature of the Construction sector: as projects are completed, many workers are laid off and rehired onto other projects. Some churn could also be attributed to a tightening labor market as the Portland-Vancouver region faces historically low levels of unemployment. One way industry partners are actively working to improve retention is through addressing jobsite culture.

TABLE 5: Annual Turnover Rate in Construction, Greater Portland Region, 2020

TOTAL, CONSTRUCTION	83%
Residential Building Construction	104%
Nonresidential Building Construction	68%
Utility System Construction	80%
Highway, Street, and Bridge Construction	111%
Other Heavy and Civil Engineering Construction	98%
Foundation, Structure, and Building Exterior Contractors	111%
Building Equipment Contractors	60%
Building Finishing Contractors	97%
Other Specialty Trade Contractors	82%
TOTAL, ALL INDUSTRIES	69%

Source: EMSI

CURRENT SUPPLY

TABLE 6: Worker Profiles, Greater Portland Region, 2019-2020

OCCUPATION	PROFILES
First-Line Supervisors of Construction Trades and Extraction Workers	2,844
Carpenters	2,150
Electricians	1,874
Construction Laborers	914
Plumbers, Pipefitters, and Steamfitters	785
Painters, Construction and Maintenance	685
Construction and Building Inspectors	455
Operating Engineers and Other Construction Equipment Operators	436
Sheet Metal Workers	277
Roofers	243
Structural Iron and Steel Workers	218
Brickmasons and Blockmasons	147
Glaziers	146
Cement Masons and Concrete Finishers	139
Drywall and Ceiling Tile Installers	110
Tile and Stone Setters	86
Miscellaneous Construction and Related Workers	74
Carpet Installers	69
Insulation Workers, Floor, Ceiling, and Wall	68
Paving, Surfacing, and Tamping Equipment Operators	42
Helpers—Roofers	36
Elevator and Escalator Installers and Repairers	36
Pipelayers	31
Helpers—Carpenters	31
Hazardous Materials Removal Workers	31
Floor Layers, Except Carpet, Wood, and Hard Tiles	29
Boilermakers	27
Solar Photovoltaic Installers	24
Highway Maintenance Workers	23
Floor Sanders and Finishers	22
Rail-Track Laying and Maintenance Equipment Operators	17
Reinforcing Iron and Rebar Workers	16
Stonemasons	14
Fence Erectors	14
Helpers, Construction Trades, All Other	11
Plasterers and Stucco Masons	10
Helpers—Pipelayers, Plumbers, Pipefitters, and Steamfitters	10
Helpers—Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	9
Septic Tank Servicers and Sewer Pipe Cleaners	8
Insulation Workers, Mechanical	6
Tapers	5
Helpers—Painters, Paperhangers, Plasterers, and Stucco Masons	5
Helpers—Electricians	3

Note: Worker profiles include online resumes and listing on employment sites

Source: EMSI

Registered Apprenticeship is the most formal career pathway for Construction workers. More than 6,000 workers enrolled in registered apprenticeship in the Greater Portland Region in 2019 and 2020.

The most popular programs were inside electrician, carpenter, and plumber. Together, they accounted for 45 percent of total enrollments.

Construction is a predominantly male field. Just nine percent of participants in registered apprenticeship programs identified as female. The apprenticeships with more than 50 participants and an above average rate of female participants include finishers (26% female), painter (28% female), and steamfitter/LEB (18% female).

Seventy-three percent of participants in registered apprenticeships identify as white. The apprenticeships with more than 50 participants and an above average rate of non-white participants include roofer, laborer, Ext/Int Specialist, cement mason, caulker, and carpenter.

TABLE 7: Training Enrollment Data for Construction-Related Apprenticeships, Greater Portland Region, 2019-2020

DESCRIPTION	SEX				RACE/ETHNICITY							TOTAL
	FEMALE	MALE	OTHER	NOT SPECIFIED	AMERICAN INDIAN OR ALASKAN NATIVE	ASIAN	BLACK OR AFRICAN AMERICAN	HISPANIC	NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	NOT SPECIFIED	WHITE	
Boilermaker (Field Construction & Repair)		8					1				7	8
Boilermaker (Uptown Shops & Shipyards)	3	2				1		1	1		2	5
Bricklayer		38			1	3	1	6		1	26	38
Bricklayer/Masonry	2	21				1	3	5			14	23
Carpenter	80	559	2		55	14	56	142	5		369	641
Caulker	3	75			2	2	1	24			49	78
Cement Mason	16	140			8	2	14	85			47	156
Construction Electrician	2	14							1		15	16
Construction Equipment Operator	1										1	1
Drywall Finisher	4	23			1		1	13			12	27
Elevator Mechanic	2	32			1			1		1	31	34
Env Con Serv Install	4	60			1	1	7	5			50	64
Env Ctl Sys Ser/Inst		15			1	1		2			11	15
Env Ctl Sys Serv/Ins		13						2			11	13
Ext/Int Specialist	27	320			16	13	14	121	1		182	347
Finisher	16	45			2		5	9			45	61
Firestop Containment	6	15				1					20	21
Floor Coverer		8						5			3	8
Glazier	4	43			2	2		3			40	47
Grade/Paving Oper	1	1									2	2
Heat/Frost Insulator	4	25					1	4			24	29
Heavy Duty Repairer		8			1			1			6	8
HVAC/R		27					2	4			21	27

Table continued on next page

Table continued from previous page

DESCRIPTION	SEX				RACE/ETHNICITY							TOTAL
	FEMALE	MALE	OTHER	NOT SPECIFIED	AMERICAN INDIAN OR ALASKAN NATIVE	ASIAN	BLACK OR AFRICAN AMERICAN	HISPANIC	NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	NOT SPECIFIED	WHITE	
Industrial Pipefitter		1									1	1
Inside Ele (Govt)		1									1	1
Inside Electrician	99	1,477			32	28	28	129		2	1,357	1,576
Insulation Applicator		2									2	2
Ironworker	20	197			13	4	15	44			141	217
Laborer	67	319			22	6	54	95	1	1	207	386
Ltd Energy Tech A	37	323			7	18	10	37			288	360
Ltd Energy Tech B	2	77			3	6	2	9			59	79
Ltd Res Electrician	5	58				2	2	7			52	63
Marble Setter	1	8			1			3			5	9
Operating Engineer	10	55			2	3	5	7			48	65
Painter	27	69			2	3	3	22	1		65	96
Pile Driver	3	43			1	1		6			38	46
Pipefitter	1	6			1						6	7
Plasterer	3	16					3	3			13	19
Plumber	16	590			3	13	20	57			513	606
Pointer/Cleaner/Caulker		1									1	1
Residential Wireman		8						1			7	8
Roofer	10	247			3	1	15	98			140	257
Scaffold Erector	6	57			2	2	5	5	2		47	63
Sheet Metal Fabricator	2	1						1		1	1	3
Sheet Metal Worker	13	333			5	9	9	47			276	346
Sign Maker/Erector	2	17			1	1		3			14	19
SM Wkr Serv Sys Tech	1	16			1	1					15	17
Sprinkler Fitter	4	94		1	1		3	8			86	98
Stationary Engineer		4					1	1			2	4
Steamfitter	7	73			2		2	13		1	62	80
Steamfitter HVAC/R	1	23						1			23	24
Steamfitter/LEB	32	141			5	6	7	10			145	173
Technical Engineer	1										1	1
Terrazzo Worker		1									1	1
Tile Trades Finisher	1	9					1	3			6	10
Tile Trades Setter	1	7				1	1	1			5	8
Tilesetter		9						3			6	9
Traffic Painter		2									2	2
Water Serv Mechanic	2	3			1			1			3	5
Water Treatment Inst		2									2	2
Wtr Serv Utility Wkr	2	6					1	2			5	8
GRAND TOTAL	551	5,788	2	1	199	146	293	1,050	7	12	4,634	6,341

Source: Oregon Bureau of Labor and Industries, Washington Bureau of Labor and Industries

TABLE 8: Apprenticeship Program Completers, Greater Portland Region, 2019–2020

DESCRIPTION	SEX		RACE/ETHNICITY							TOTAL
	FEMALE	MALE	AMERICAN INDIAN OR ALASKAN NATIVE	ASIAN	BLACK OR AFRICAN AMERICAN	HISPANIC	NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	NOT SPECIFIED	WHITE	
Boilermaker	1	2						1	2	3
Bricklayer	2	10	1			3			8	12
Bricklayer/Masonry		3							3	3
Carpenter	34	273	22	8	14	50			213	307
Caulker		8				2			6	8
Cement Mason	2	28	3	1		10			16	30
Construction Equipment Operator		2							2	2
Construction Electrician		20				2			18	20
Drywall Finisher		27				20			7	27
Elevator Mechanic		37	1	1	1	2		1	31	37
Env Con Serv Install		36		2	3	2			29	36
Env Ctl Sys Ser/Inst		11			1				10	11
Env Ctl Sys Serv/Ins		3							3	3
Ext/Int Specialist	10	183	3	5	9	58			118	193
Finisher	5	32	1			3			33	37
Firestop Containment		1							1	1
Floor Coverer		8		1		3			4	8
Glazier	2	30			1	3			28	32
Grade/Paving Oper	1	1							2	2
Heat/Frost Insulator		21				3			18	21
Heavy Duty Repairer		5							5	5
HVAC/R		10				1			9	10
Industrial Maintenance Electrician		3				1			2	3
Industrial Pipefitter		1		1						1
Inside Electrician	27	749	18	17	7	46			688	776
Inside Wireman		2				1			1	2
Ironworker	1	31		2		5			25	32
Laborer	18	99	4	3	13	28	1		68	117
Ltd Energy Tech A	18	187	2	8	1	19			175	205
Ltd Energy Tech B	5	40		1		3			41	45
Ltd Res Electrician	4	18		1	2	4			15	22
Marble Setter		1							1	1
Operating Engineer	1	15		1	1				14	16

Table continued on next page

Table continued from previous page

DESCRIPTION	SEX		RACE/ETHNICITY							TOTAL
	FEMALE	MALE	AMERICAN INDIAN OR ALASKAN NATIVE	ASIAN	BLACK OR AFRICAN AMERICAN	HISPANIC	NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	NOT SPECIFIED	WHITE	
Painter	2	19				7			13	21
Pile Driver	1	13	1	1		1			12	14
Pipefitter		2							2	2
Plasterer		3		1					2	3
Plumber	10	367	8	9	3	28			329	377
Residential Wireman		5						1	4	5
Roofer		30	2	1	4	11			12	30
Scaffold Erector	1	14	2			1			12	15
Sheet Metal Worker	4	140	2	4	2	12			124	144
Sign Maker/Erector		6							6	6
SM Wkr Serv Sys Tech		3							3	3
Sprinkler Fitter		32			1	4			27	32
Steamfitter	6	57	1	1	3	10		1	47	63
Steamfitter HVAC/R		13				3			10	13
Steamfitter/LEB	9	56	2		3	2			58	65
Technical Engineer		1							1	1
Tile Trades Finisher		4			1	2			1	4
Tilesetter		6				1			5	6
Water Serv Mechanic		8							8	8
Wtr Serv Utility Wkr	5	17	1	1	2	9			9	22
GRAND TOTAL	169	2,693	74	70	72	360	1	4	2,281	2,862

Source: Oregon Bureau of Labor and Industries, Washington Bureau of Labor and Industries

More than 2,800 workers completed registered apprenticeship in the Greater Portland Region in 2019 and 2020. The number was likely impacted by the COVID-19 pandemic.

The most popular programs were inside electrician, carpenter, and plumber. Together, they accounted for 52 percent of total completions.

Just six percent of people who completed apprenticeships identified as female. The apprenticeships with more than 50 participants and above average rates of female participant completion include laborer, finisher, and steamfitter/LEB.

Eighty percent of participants who completed registered apprenticeships identify as white. The apprenticeships with more than 50 participants and an above average rate of non-white participants include cement mason, drywall finisher, Ext/Int specialist, Laborer, and roofer.

CURRENT DEMAND

TABLE 9: Construction Occupations with Largest Number of Online Job Postings, Greater Portland Region, 2020

OCCUPATION	AVG. MONTHLY ONLINE JOB POSTINGS
First-Line Supervisors of Construction Trades and Extraction Workers	3,320
Carpenters	1,564
Electricians	1,612
Construction Laborers	606
Plumbers, Pipefitters, and Steamfitters	4,978
Painters, Construction and Maintenance	2,220
Sheet Metal Workers	3,105
Construction and Building Inspectors	1,056
Operating Engineers and Other Construction Equipment Operators	2,641
Roofers	1,130

Source: EMSI

Data for top ten occupations listed include ads across all industries and is adjusted for duplications.

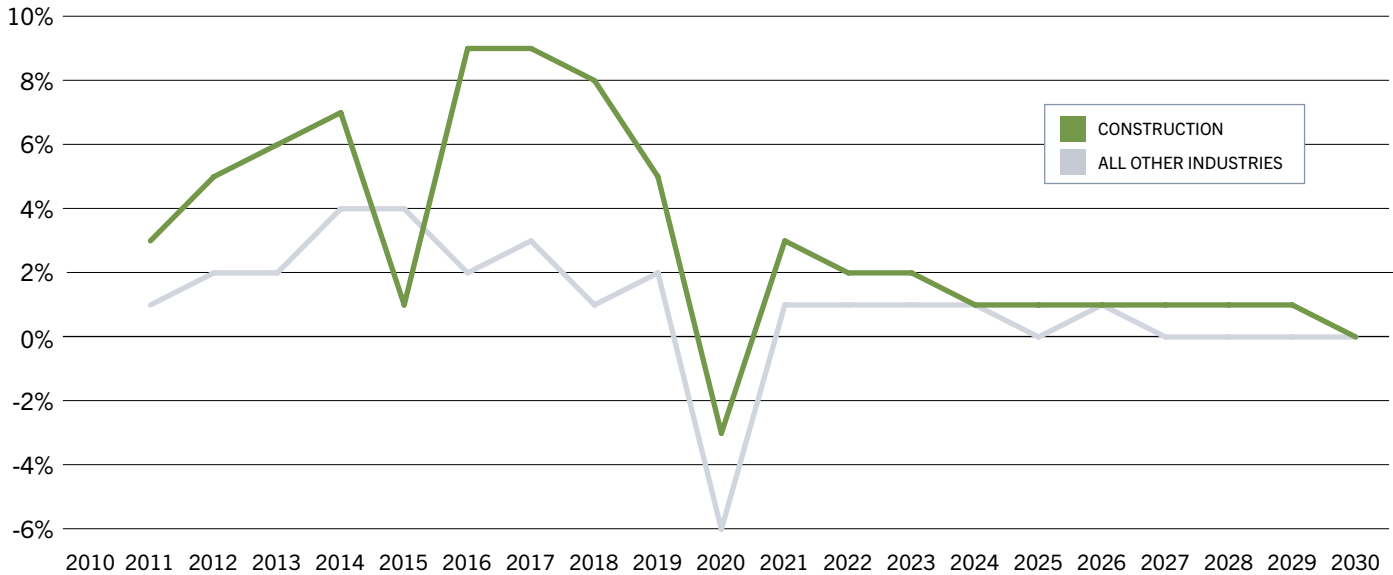
The number of online job advertisements for Construction occupations in the Greater Portland Region has steadily increased over the past three years. The expansion beyond traditional methods for finding Construction workers could be twofold—historically low levels of employment has tightened the labor market, making it more difficult for Construction firms to find workers. Compounding the problem is the regional labor shortage.



Oregon Tradeswomen

LONG-TERM DEMAND

FIGURE 13: Historical and Projected Growth, Greater Portland Region, 2011-2030



Source: EMSI

Between 2020 and 2030, the sector is expected to add about 13,200 jobs for a growth rate of 17 percent, faster than the overall economy (9%). However, this is likely an undercount. Multiple large construction projects, including but not limited to the Burnside Bridge retrofit, the Interstate Bridge replacement, the Multnomah County Library Bond, and Bull Run Water Filtration Project Each project will require a large and diverse workforce.

TABLE 10: Construction Occupations Adding the Largest Number of Jobs, Greater Portland Region, 2020

OCCUPATIONS	2020	2030	GROWTH	PERCENT GROWTH	SHARE OF SECTOR GROWTH	PROJECTED ANNUAL GROWTH OPENINGS
Construction Laborers	8,709	10,013	1,304	15%	21%	1,047
Electricians	7,352	8,621	1,269	17%	20%	949
Carpenters	10,984	11,859	876	8%	14%	1,149
First-Line Supervisors of Construction Trades and Extraction Workers	5,053	5,737	683	14%	11%	575
Plumbers, Pipefitters, and Steamfitters	4,617	5,046	429	9%	7%	541
Painters, Construction and Maintenance	2,815	3,052	237	8%	4%	293
Drywall and Ceiling Tile Installers	967	1,198	231	24%	4%	118
Operating Engineers and Other Construction Equipment Operators	2,659	2,809	150	6%	2%	303
Structural Iron and Steel Workers	881	978	97	11%	2%	106
Sheet Metal Workers	2,343	2,426	84	4%	1%	233

Source: EMSI

APPENDIX

The categories under description are the NAICS (North American Industry Classification System) subcategories. The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

Residential Building Construction	This industry group comprises establishments primarily responsible for the construction (including new work, additions, alterations, maintenance, and repairs) of residential buildings. This industry group includes nonresidential general contractors, nonresidential for-sale builders, nonresidential design-build firms, and nonresidential project construction management firms.
Nonresidential Building Construction	This industry group comprises establishments primarily responsible for the construction (including new work, additions, alterations, maintenance, and repairs) of nonresidential buildings. This industry group includes nonresidential general contractors, nonresidential for-sale builders, nonresidential design-build firms, and nonresidential project construction management firms.
Utility System Construction	This industry group comprises establishments primarily engaged in the construction of distribution lines and related buildings and structures for utilities (i.e., water, sewer, petroleum, gas, power, and communication). All structures (including buildings) that are integral parts of utility systems (e.g., storage tanks, pumping stations, power plants, and refineries) are included in this industry group.
Land Subdivision	This industry comprises establishments primarily engaged in servicing land and subdividing real property into lots, for subsequent sale to builders. Servicing of land may include excavation work for the installation of roads and utility lines. The extent of work may vary from project to project. Land subdivision precedes building activity, and the subsequent building is often residential, but may also be commercial tracts and industrial parks. These establishments may do all the work themselves or subcontract the work to others. Establishments that perform only the legal subdivision of land are not included in this industry.
Highway, Street, and Bridge Construction	This industry comprises establishments primarily engaged in the construction of highways (including elevated), streets, roads, airport runways, public sidewalks, or bridges. The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this industry if they are engaged in activities primarily related to highway, street, and bridge construction (e.g., installing guardrails on highways).
Other Heavy and Civil Engineering Construction	This industry comprises establishments primarily engaged in heavy and civil engineering construction projects (excluding highway, street, bridge, and distribution line construction). The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this industry if they are engaged in activities primarily related to heavy and civil engineering construction projects (excluding highway, street, bridge, distribution line, oil and gas structure, and utilities building and structure construction). Construction projects involving water resources (e.g., dredging and land drainage), development of marine facilities, and projects involving open space improvement (e.g., parks and trails) are included in this industry.
Foundation, Structure, and Building Exterior Contractors	This industry group comprises establishments primarily engaged in the specialty trades needed to complete the basic structure (i.e., foundation, frame, and shell) of buildings. The work performed may include new work, additions, alterations, maintenance, and repairs.
Building Equipment Contractors	This industry group comprises establishments primarily engaged in installing or servicing equipment that forms part of a building mechanical system (e.g., electricity, water, heating, and cooling). The work performed may include new work, additions, alterations, maintenance, and repairs. Contractors installing specialized building equipment, such as elevators, escalators, service station equipment, and central vacuum cleaning systems, are also included.
Building Finishing Contractors	This industry group comprises establishments primarily engaged in the specialty trades needed to finish buildings. The work performed may include new work, additions, alterations, maintenance, and repairs.
Other Specialty Trade Contractors	This industry group comprises establishments primarily engaged in site preparation activities and in specialized trades (except foundation, structure, and building exterior contractors; building equipment contractors; and building finishing contractors). The specialty trade work performed includes new work, additions, alterations, maintenance, and repairs.



These programs funded in whole or part through the U.S. Department of Labor. We are equal opportunity employers/programs. Auxiliary aids and services are available upon request to individuals with disabilities. Oregon and Washington Relay 711.