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March 2019

## **Oregon's Maritime Sector Workforce Report**

In 2017, Oregon Senate Bill 867 called for the creation of a task force on maritime sector workforce development; described Oregon's maritime sector in general; and directed the task force to "study and develop a description of the scope and extent of the maritime sector workforce in Oregon, which shall include those members of the maritime sector workforce who are Oregon taxpayers but who work outside Oregon." This report provides labor market information about Oregon's maritime sector.

Oregon's maritime sector workforce totaled nearly 19,000 in 2017. This includes Oregon residents and nonresidents who worked in Oregon, as well as Oregon residents who worked out of state. The count includes civilian maritime workers, such as those working in Oregon businesses; commercial fishers in Oregon waters; commercial fishers who live in Oregon and fish in Alaska, California, or Washington; and active mariners with a U.S. Coast Guard officer endorsement or rating who use an Oregon mailing address. The count also includes military service members in U.S. Coast Guard and Navy.

### **Measuring Oregon's Maritime Sector Workforce**

No single source of data can fully measure employment in Oregon's maritime sector. Measuring employment in the sector requires data from multiple sources, which are described below. Each source provides different information about Oregon's maritime workforce.

Some sources of maritime workforce data are counts of jobs (an employer-employee relationship), while other sources are counts of individuals (a license holder or service member). Oregon's maritime sector workforce totaled 18,981 in 2017 when using this approach of combining data sources. The table below shows Oregon's maritime sector workforce by data source.

<b>Oregon's Maritime Workforce in 2017</b>	
Total Maritime Workforce*	18,981
Covered Maritime Sector Jobs	10,019
Commercial Fishing in Oregon	3,498
Distant Waters Commercial Fishing	1,447
Mariners with a U.S. Coast Guard Credential	2,598
Coast Guard and Navy Service Members	1,653
*Covered commercial fishing jobs excluded from total to avoid double-counting.	
<i>Source: Oregon Employment Department from various sources</i>	

*Covered Employment* (10,019 jobs) – More than 10,000 maritime sector jobs are “covered” by Oregon’s Unemployment Insurance program. These are jobs where the employer pays unemployment insurance tax on the wages for each worker. The tax information is used to create the Quarterly Census of Employment and Wages (QCEW) data series, the most detailed source for industry employment and wages by location. Covered employment is also the base data series for the age of the workforce, employment projections, and employment by occupation.

Industry employment is based on 15 industries that directly correspond to the description of the maritime sector in Oregon Senate Bill 867. All employment in these industries is counted. The maritime industries totaled 7,042 jobs in 2017. Some maritime businesses and government establishments are classified in other industries, but are an integral part of Oregon’s maritime sector. These establishments have been identified, where possible, and counted as additional maritime sector firms for a total of 2,977 jobs.

The 1999 Legislature passed legislation that impacted a certain segment of the fishing industry. House Bill 3308 excluded from unemployment insurance fishing services performed by workers on boats with crews of less than 10 individuals where the payment is based on the share of the catch. As a result, covered employment data captures less than 10 percent of commercial fishing employment in Oregon. Because of this, the Oregon Employment Department creates separate estimates for commercial fishing employment.

Oregon’s 23 public ports support the maritime sector in multiple ways and their employment is counted in more than one industry, so port employment is not shown as a separate line in the table. However, Oregon’s maritime ports workforce accounted for 772 jobs and a total payroll of nearly \$59 million in 2017.

<b>Oregon's Covered Maritime Sector Jobs and Wages by Industry, 2017</b>			
<b>Industry</b>	<b>Number of Jobs</b>	<b>Total Wages</b>	<b>Average Annual Wage</b>
	10,019	\$607,917,935	\$60,853
Support Activities for Water Transportation	1,589	\$115,367,264	\$72,604
Ship Building and Repairing	1,273	\$99,934,740	\$78,503
Seafood Product Preparation and Packaging	1,172	\$40,329,700	\$34,411
Fish and Seafood Merchant Wholesalers	525	\$33,407,740	\$63,634
Boat Dealers	434	\$20,361,679	\$46,916
Boat Building	385	\$16,716,047	\$43,418
Aquaculture	296	\$12,717,354	\$42,964
Scenic and Sightseeing Transportation, Water	267	\$7,550,460	\$28,279
Finfish Fishing*	234	\$15,194,219	\$64,933
Sea, Coastal, and Great Lakes Transportation	232	\$32,281,501	\$139,144
Marina	213	\$7,606,183	\$35,710
Fish and Seafood Markets	206	\$5,737,127	\$27,850
Inland Water Freight Transportation	138	\$11,269,298	\$81,662
Inland Water Passenger Transportation	44	\$1,597,346	\$36,303
Shellfish Fishing	34	\$2,053,825	\$60,407
All other identified maritime sector firms	2,948	\$185,793,452	\$63,024
Covered jobs without wage data	29	N/A	N/A
* Includes commercial fishing jobs covered by unemployment insurance (see text).			
<i>Source: Oregon Employment Department</i>			

*Commercial Fishing in Oregon* (3,498 individuals) – Nearly 3,500 commercial fishers worked in Oregon in 2017, as estimated by the Oregon Employment Department. The estimate is based on licenses issued by the Oregon Department of Fish and Wildlife to commercial fishers in Oregon.

*Distant Waters Commercial Fishing* (1,447 individuals) – Oregon’s nearly 1,500 distant waters commercial fishers work in Alaska, California, and Washington, but live in Oregon. They are counted here based on the number of people with an Oregon address who were issued commercial fishing licenses in those states. There were 1,337 Alaska Commercial Fishermen and Skippers, 86 in California, and 24 in Washington.

*Mariners with U.S. Coast Guard Endorsements / Ratings* (2,598 individuals) – About 2,600 active mariners had an Oregon mailing address as of December 31, 2017. These mariners have at least one U.S. Coast Guard issued credential. Credentials are the professional qualifications needed to perform specific capacities on a vessel. A few examples are master deck officer, engineer officer, able seaman, and wiper, but there are many more. The average Oregon mariner holds five ratings or officer endorsements. In total, Oregon mariners are certified to perform 12,344 capacities in the maritime sector.

*Coast Guard and Navy Service Members* (1,653 individuals) – Nearly 1,700 service members are involved in Oregon’s maritime military, which consists primarily of the Coast Guard and Navy. According to the 13<sup>th</sup> Coast Guard District, there are 1,273 active duty and auxiliary personnel serving in Oregon. According to the Navy Operational Support Center at Swan Island, there are 330 Navy reservists in Oregon. According to Navy Recruiting District Portland, there are 50 active duty Navy recruiters in Oregon.

### **Wages in Oregon’s Covered Maritime Industries**

Oregon’s covered maritime industries paid a total of nearly \$608 million in wages in 2017. The average annual wage of covered jobs in Oregon’s maritime industry was \$60,853. That is 19 percent higher than Oregon’s overall annual wage of \$51,117. Average annual wages vary depending on industry, ranging from a low of \$27,850 in fish and seafood markets to a high of \$139,144 in sea and coastal transportation.

The average annual wage is based on the 10,000 jobs covered by the unemployment insurance program. Wage information is not available for commercial fishing, active mariners, or military service members.

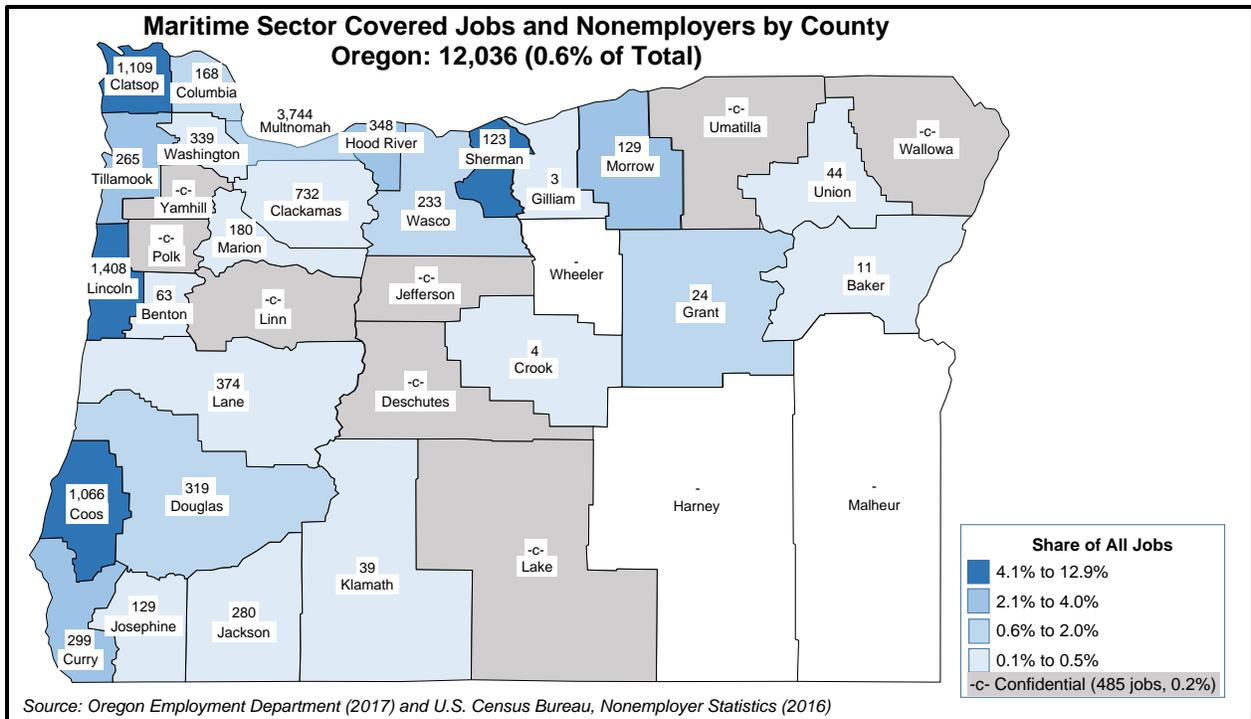
### **Importance of Maritime Sector Jobs in Rural Communities**

Maritime sector jobs are prevalent on the Oregon Coast, of course, but maritime sector jobs can be found in 33 of Oregon’s 36 counties. The only counties without a measureable maritime workforce were Harney, Malheur, and Wheeler counties.

In some communities, maritime sector jobs are a large portion of the total workforce. The counties with the largest portion of workforce in the maritime sector are Sherman (12.9%), Lincoln (6.5%), Clatsop (5.2%), Coos (4.1%), Curry (3.6%), and Tillamook (2.3%). Sherman County tops the list because U.S. Army Corps of Engineers jobs at John Day Dam are part of Oregon’s maritime workforce, and the jobs are a large share of the county’s employment.

The maritime sector jobs of coastal counties totaled 4,840 jobs. Multnomah County has 3,744 jobs, the most maritime jobs of any county, but these jobs were just 0.7 percent of the total workforce.

The number of maritime sector jobs by county is available from the covered employment data. Commercial fishers by county of residence is available from the U.S. Census Bureau’s Nonemployer Statistics and is based on Internal Revenue Service income tax filings. Covered employment and nonemployers are combined for the map of maritime workforce by region.



## The Aging of Oregon's Maritime Sector Workers

The maritime sector workforce tends to be older than Oregon's overall workforce. About 27 percent of jobs in Oregon's covered fishing, maritime manufacturing, and transportation jobs are held by workers age 55 years and over. That's a higher share than the 23 percent of the overall workforce. At least some of these workers will be looking to retire within the next 10 years.

Maritime industries with the most workers nearing retirement are support activities for water transportation (466 jobs), ship and boat building (390 jobs), and seafood product preparation and packaging (316 jobs). The industry with the largest share of workers age 55 years and over is sea and coastal transportation (32%), where 70 jobs are held by workers age 55 years and over.

Information about the age of the workforce is from the U.S. Census Bureau's Quarterly Workforce Indicators. It is based on covered employment that is combined with the age of individual workers from federal sources. There is less industry detail available from this source, so the age information is limited to eight maritime sectors and covers 55 percent of covered jobs.

<b>Covered Jobs Held by Workers Age 55 Years and Over, 2017 Fishing, Maritime Manufacturing, and Maritime Transportation</b>			
<b>Industry</b>	<b>Employment All Ages</b>	<b>Employment Age 55+</b>	<b>Share Age 55+</b>
<b>Total</b>	<b>5,513</b>	<b>1,519</b>	<b>27%</b>
Support Activities for Water Transportation	1,566	466	30%
Ship and Boat Building	1,687	390	22%
Seafood Product Preparation and Packaging	1,089	316	31%
Fishing	260	84	30%
Scenic and Sightseeing Transportation, Water	263	73	27%
Sea, Coastal, and Great Lakes Transportation	212	70	32%
Aquaculture	271	64	24%
Inland Water Transportation	165	56	30%

*Source: Oregon Employment Department, based on U.S. Census Bureau, Quarterly Workforce Indicators (2017 Q1 - 2017 Q4)*

**Projections of Employment Change through the Year 2027**

The maritime sector workforce is expected to expand by 5 percent between 2017 and 2027, according to projections from the Oregon Employment Department. That is a net increase of more than 400 jobs. Fishing is expected to add 160 jobs, the largest gain in the maritime sector. Seafood product preparation and packaging has the second largest gain, with 118 jobs new jobs by 2027.

Industries projected to have fewer jobs in 2027 are support activities for water transportation (-59 jobs); scenic and sightseeing water transportation (-14); and sea and coastal transportation (-2). Although these industries are projected to have fewer jobs in the future than today, they will continue to need more workers due to replacement job openings as current workers change occupations or leave the labor force. The need for replacement openings is reflected in the occupational employment data below.

The fishing industry employment projection is an annual average count of jobs in order for it to be comparable to other industries. It is conceptually the same group of commercial fishers in Oregon, but measured as jobs instead of individuals.

<b>10-Year Employment Projections for Oregon's Maritime Industries</b>				
<b>Industry</b>	<b>2017</b>	<b>2027</b>	<b>Change</b>	<b>Percent Change</b>
<b>Total</b>	<b>7,644</b>	<b>8,052</b>	<b>408</b>	<b>5%</b>
Ship and Boat Building	1,651	1,676	25	2%
Fishing	1,507	1,667	160	11%
Support Activities for Water Transportation	1,197	1,138	-59	-5%
Seafood Product Preparation and Packaging	1,172	1,290	118	10%
Fish and Seafood Merchant Wholesalers	527	585	58	11%
Boat Dealers	424	491	67	16%
Scenic and Sightseeing Transportation, Water	247	233	-14	-6%
Deep Sea, Coastal, and Great Lakes Water Transportation	231	229	-2	-1%
Marinas	213	225	12	6%
Fish and Seafood Markets	204	228	24	12%
Inland Water Transportation	177	190	13	7%
Animal Aquaculture	94	100	6	6%

*Source: Oregon Employment Department*

## **Occupations in Oregon's Maritime Industries**

The workforce of Oregon maritime industries consists of more than 100 different occupations. Information about maritime occupations helps to better describe Oregon's maritime workers using information about hourly wages, projected replacement openings, the educational attainment required for a job applicant to be competitive in the occupation, and other occupational information. However, occupational data is limited to 77 percent of covered maritime jobs.

Replacement openings, the number of job openings created when workers change occupations or leave the labor force, are expected to total nearly 6,600 through the year 2027. This represents the need for workers with the training required to fill those openings. Replacements are a much larger source of workforce need than jobs created due to sector growth. Through 2027, Oregon's maritime sector will need 16 replacement workers for each new worker needed due to economic expansion. That's a greater need for replacements than across the economy overall. Oregon projections show nine replacement openings for every opening created due to economic growth. With an older workforce, the maritime sector is going to have openings to fill as current workers retire.

The 10 occupations with the most jobs in Oregon's maritime sector are shown in the table. An expanded list of occupations is available at the end of this report.

Top 10 Occupations in Oregon's Maritime Industries				
Occupation	Number of Jobs (2017)	Median Hourly Wage (2018)	Replacement Openings 2017 to 2027	Competitive Education
<b>Total</b>	<b>7,717</b>	<b>N/A</b>	<b>6,582</b>	
Fishers and Related Fishing Workers	1,472	N/A	1,512	High school diploma or equivalent
Meat, Poultry, and Fish Cutters and Trimmers	493	\$11.40	443	High school diploma or equivalent
Fork Lift, Industrial Truck and Tractor Operators	318	\$17.88	222	High school diploma or equivalent
Welders, Cutters, Solderers, and Brazers	313	\$21.45	167	Postsecondary training (non-degree)
Structural Metal Fabricators and Fitters	308	\$20.96	213	Postsecondary training (non-degree)
Cargo and Freight Agents	261	\$23.70	162	High school diploma or equivalent
Mobile Heavy Equipment Mechanics, Except Engines	212	\$25.00	132	Postsecondary training (non-degree)
Sailors and Marine Oilers	201	\$27.83	160	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	200	\$14.24	198	High school diploma or equivalent
Tank Car, Truck, and Ship Loaders	175	\$26.19	155	High school diploma or equivalent
All Other Occupations Combined	3,764	N/A	3,218	

Note: Wages, replacements openings, and competitive education level based on jobs in all Oregon industries (not just maritime).

Source: Oregon Employment Department

## Conclusion

Oregon's maritime sector is widespread and plays a key economic role in many coastal and rural communities. With a workforce totaling nearly 19,000 in 2017 and average wages exceeding most other industries, the maritime sector supports many family-wage jobs in Oregon. The sector is expected to continue adding new jobs, creating the need for more workers. Oregon's maritime workforce is also aging. A large share of the current workforce will retire or change careers within the next 10 years, creating replacement openings for new workers. These workforce trends represent challenges for employers trying to fill their job vacancies, as well as more job opportunities for Oregonians in the maritime sector.

## Data Sources

Alaska Department of Fish and Game – email

California Department of Fish and Wildlife – email

Marine and Environmental Research and Training Station (MERTS) – phone call

Oregon Employment Department – [2017-2027 Employment Projections](#)

Oregon Employment Department – Commercial fishing in Oregon estimates are based on licenses from the Oregon Department of Fish and Wildlife.

Oregon Employment Department – Covered maritime sector jobs from [Quarterly Census of Employment and Wages \(QCEW\)](#). Also see [Data Sources and Limitations](#).

Oregon Employment Department – [Oregon Wage Information, 2018](#)

Tongue Point Seamanship Program – phone call

U.S. Coast Guard, 13<sup>th</sup> Coast Guard District - email

U.S. Coast Guard, National Maritime Center, Mariner Information Division - email

U.S. Navy Recruiting District Portland – phone conversation

U.S. Navy Swan Island Naval Reserve – phone conversation

U.S. Census Bureau, [Nonemployer Statistics](#), 2016

U.S. Census Bureau, [Quarterly Workforce Indicators](#), 2017

Washington State Department of Fish and Wildlife - email

**Top 100 Occupations in Oregon's Maritime Industries**

<b>Occupation</b>	<b>Number of Jobs (2017)</b>	<b>Median Hourly Wage (2018)</b>	<b>Replacement Openings 2017 to 2027</b>	<b>Competitive Education</b>
<b>Total</b>	<b>7,717</b>	<b>N/A</b>	<b>6,582</b>	
Fishers and Related Fishing Workers	1,472	N/A	1,512	High school diploma or equivalent
Meat, Poultry, and Fish Cutters and Trimmers	493	\$11.40	443	High school diploma or equivalent
Fork Lift, Industrial Truck and Tractor Operators	318	\$17.88	222	High school diploma or equivalent
Welders, Cutters, Solderers, and Brazers	313	\$21.45	167	Postsecondary training (non-degree)
Structural Metal Fabricators and Fitters	308	\$20.96	213	Postsecondary training (non-degree)
Cargo and Freight Agents	261	\$23.70	162	High school diploma or equivalent
Mobile Heavy Equipment Mechanics, Except Engines	212	\$25.00	132	Postsecondary training (non-degree)
Sailors and Marine Oilers	201	\$27.83	160	High school diploma or equivalent
Laborers and Freight, Stock, and Material Movers, Hand	200	\$14.24	198	High school diploma or equivalent
Tank Car, Truck, and Ship Loaders	175	\$26.19	155	High school diploma or equivalent
Retail Salespersons	170	\$12.34	215	High school diploma or equivalent
Captains, Mates, and Pilots of Water Vessels	170	\$40.04	114	Postsecondary training (non-degree)
Food Processing Workers, All Other	169	\$12.01	145	High school diploma or equivalent
Truck Drivers, Heavy and Tractor-Trailer	163	\$22.05	138	Postsecondary training (non-degree)
Maintenance and Repair Workers, General	148	\$18.23	121	Postsecondary training (non-degree)
General and Operations Managers	148	\$41.37	61	Bachelor's degree
Office Clerks, General	101	\$16.81	119	Postsecondary training (non-degree)
Assemblers and fabricators, all other, including team assemblers	96	\$15.66	106	High school diploma or equivalent
Supervisors and Managers of Production and Operating Workers	92	\$26.56	59	Bachelor's degree
Combined Food Preparation and Serving Workers, Including Fast Food	89	\$11.71	158	High school diploma or equivalent
Painters, Transportation Equipment	89	\$20.13	51	High school diploma or equivalent
Supervisors and Managers of Office and Administrative Support Workers	70	\$27.22	54	Associate's degree
Wholesale and Manufacturing Sales Representatives, Except Technical and Scientific Products	69	\$28.22	46	Associate's degree
Electrical and Electronics Installers and Repairers, Transportation Equipment	67	\$26.88	33	Associate's degree
Bookkeeping, Accounting, and Auditing Clerks	61	\$19.37	76	Associate's degree
Supervisors and Managers of Transportation and Material Moving Workers, Except Aircraft Cargo Handling	61	\$25.03	66	Bachelor's degree
Ship Engineers	59	\$35.56	47	Bachelor's degree
Electricians	58	\$34.21	40	Postsecondary training (non-degree)
Packaging and Filling Machine Operators and Tenders	56	\$14.35	53	High school diploma or equivalent
Slaughterers and Meat Packers	56	\$13.01	50	High school diploma or equivalent
Driver/Sales Workers	53	\$14.55	45	High school diploma or equivalent

Note: Wages, replacements openings, and competitive education level based on jobs in all Oregon industries (not just maritime).

**Top 100 Occupations in Oregon's Maritime Industries (continued)**

<b>Occupation</b>	<b>Number of Jobs (2017)</b>	<b>Median Hourly Wage (2018)</b>	<b>Replacement Openings 2017 to 2027</b>	<b>Competitive Education</b>
Carpenters	51	\$22.43	35	Postsecondary training (non-degree)
Shipping, Receiving, and Traffic Clerks	50	\$16.51	39	High school diploma or equivalent
Industrial Production Managers	49	\$42.00	23	Bachelor's degree
Riggers	47	\$31.56	29	High school diploma or equivalent
Stock Clerks and Order Fillers	46	\$14.18	50	High school diploma or equivalent
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	45	\$18.42	48	Associate's degree
Buyers and Purchasing Agents	44	\$28.14	47	Bachelor's degree
Motorboat Mechanics	44	\$18.14	36	High school diploma or equivalent
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	44	\$20.47	23	Postsecondary training (non-degree)
Waiters and Waitresses	41	\$11.81	61	High school diploma or equivalent
Production Worker's Helpers	41	\$15.52	44	High school diploma or equivalent
Supervisors and Managers of Retail Sales Workers	41	\$18.58	30	Postsecondary training (non-degree)
Packers and Packagers, Hand	40	\$12.50	54	High school diploma or equivalent
Cooks, All Other	39	\$13.16	46	High school diploma or equivalent
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	37	\$15.77	29	High school diploma or equivalent
Cleaners of Vehicles and Equipment	35	\$12.56	36	High school diploma or equivalent
Transportation Inspectors	35	\$32.04	25	Postsecondary training (non-degree)
Inspectors, Testers, Sorters, Samplers, and Weighers	32	\$19.48	27	Postsecondary training (non-degree)
Business Operations Specialists, All Other	32	\$31.68	20	Bachelor's degree
Service Station Attendants	31	\$11.99	33	High school diploma or equivalent
Managers, All Other	28	\$43.89	15	Bachelor's degree
Payroll and Timekeeping Clerks	24	\$22.39	20	Postsecondary training (non-degree)
Installation, Maintenance, and Repair Workers, All Other	24	\$19.55	18	High school diploma or equivalent
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	23	\$13.53	30	High school diploma or equivalent
Transportation, Storage, and Distribution Managers	23	\$42.36	10	Bachelor's degree
Material Moving Workers, All Other	22	\$17.48	20	High school diploma or equivalent
Production Workers, All Other	22	\$15.69	17	High school diploma or equivalent
Financial Managers	22	\$52.64	10	Bachelor's degree
Counter and Rental Clerks	21	\$13.92	22	High school diploma or equivalent
Boilermakers	21	\$27.80	13	Postsecondary training (non-degree)
Sales Managers	21	\$53.41	10	Bachelor's degree
Motorboat Operators	20	\$20.23	13	High school diploma or equivalent

Note: Wages, replacements openings, and competitive education level based on jobs in all Oregon industries (not just maritime).

**Top 100 Occupations in Oregon's Maritime Industries (continued)**

<b>Occupation</b>	<b>Number of Jobs (2017)</b>	<b>Median Hourly Wage (2018)</b>	<b>Replacement Openings 2017 to 2027</b>	<b>Competitive Education</b>
Accountants and Auditors	20	\$30.97	12	Bachelor's degree
Dining Room and Cafeteria Attendants and Bartender Helpers	19	\$11.58	34	High school diploma or equivalent
Cooks, Restaurant	19	\$13.37	22	High school diploma or equivalent
Billing and Posting Clerks	19	\$18.98	16	High school diploma or equivalent
Cashiers	18	\$11.88	34	High school diploma or equivalent
Cooling and Freezing Equipment Operators and Tenders	18	\$15.02	14	High school diploma or equivalent
Supervisors and Managers of Mechanics, Installers, and Repairers	18	\$31.53	12	Postsecondary training (non-degree)
Industrial Machinery Mechanics	17	\$26.16	11	Postsecondary training (non-degree)
Marine Engineers and Naval Architects	17	\$52.83	8	Master's degree
Bill and Account Collectors	16	\$17.54	12	High school diploma or equivalent
Network and Computer Systems Administrators	16	\$37.95	4	Bachelor's degree
Parts Salespersons	14	\$15.95	12	High school diploma or equivalent
Human Resources Specialists	14	\$28.36	8	Bachelor's degree
Office and Administrative Support Workers, All Other	13	\$17.21	11	High school diploma or equivalent
Truck Drivers, Light or Delivery Services	13	\$16.63	11	High school diploma or equivalent
Layout Workers, Metal and Plastic	13	\$24.92	10	High school diploma or equivalent
Sales Representatives, Services, All Other	13	\$24.29	8	Postsecondary training (non-degree)
Fiberglass Laminators and Fabricators	12	\$15.45	10	High school diploma or equivalent
Plumbers, Pipefitters, and Steamfitters	12	\$36.19	9	Postsecondary training (non-degree)
Machinists	12	\$23.14	8	Postsecondary training (non-degree)
Cost Estimators	11	\$32.10	7	Bachelor's degree
Occupational Health and Safety Specialists	11	\$35.36	5	Bachelor's degree
Computer User Support Specialists	11	\$24.13	4	Bachelor's degree
Executive Secretaries and Executive Administrative Assistants	10	\$26.56	11	Associate's degree
Upholsterers	10	\$14.86	9	High school diploma or equivalent
Farmworkers, Farm, Ranch, and Aquacultural Animals	10	\$11.79	7	High school diploma or equivalent
Automotive Body and Related Repairers	10	\$18.37	7	Postsecondary training (non-degree)
Tour and travel guides	9	\$13.67	16	High school diploma or equivalent
Bartenders	9	\$11.77	9	Postsecondary training (non-degree)
Dispatchers, Except Police, Fire, and Ambulance	9	\$19.43	6	High school diploma or equivalent
Administrative Services Managers	9	\$39.84	5	Bachelor's degree
Production, Planning, and Expediting Clerks	8	\$22.08	6	Bachelor's degree

Note: Wages, replacements openings, and competitive education level based on jobs in all Oregon industries (not just maritime).

**Top 100 Occupations in Oregon's Maritime Industries (continued)**

<b>Occupation</b>	<b>Number of Jobs (2017)</b>	<b>Median Hourly Wage (2018)</b>	<b>Replacement Openings 2017 to 2027</b>	<b>Competitive Education</b>
Supervisors and Managers of Construction Trades and Extraction Workers	8	\$33.93	5	Postsecondary training (non-degree)
Customer Service Representatives	7	\$16.86	7	High school diploma or equivalent
Crane and Tower Operators	7	\$30.24	5	High school diploma or equivalent
Drafters, All Other	7	\$25.17	4	Postsecondary training (non-degree)
Training and Development Specialists	6	\$29.53	4	Bachelor's degree
Chefs and Head Cooks	6	\$21.32	4	Postsecondary training (non-degree)
Commercial Pilots, Except Airline Pilots	6	\$57,500*	3	Bachelor's degree
All Other Occupations Combined	147	N/A	98	N/A

Note: Wages, replacements openings, and competitive education level based on jobs in all Oregon industries (not just maritime).

\* Median Annual Salary

Source: Oregon Employment Department