UPDATED

TRANSPORTATION, WAREHOUSING, AND LOGISTICS WORKFORCE ANALYSIS

MAINE.
ECONOMIC & COMMUNITY DEVELOPMENT

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Executive Summary

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Transportation, Warehousing, and Logistics Powers Maine's Trade Future

The Transportation, Warehousing, and Logistics (TWL) sector is fundamental to Maine's economy. It enables the movement of goods across industries and connects producers to regional and national markets.

When the TWL sector struggles with workforce shortages and volatility, the impacts ripple far beyond logistics alone because manufacturers, agricultural producers, and other industries that rely on moving products to market are constrained in their ability to grow.

Simply put, Maine's domestic trade efforts cannot succeed without a reliable and resilient TWL workforce. Yet today the sector is under strain. Workforce supply and demand volatility, an aging labor pool, infrastructure challenges, and skill shortages all pose risks to future growth and threaten Maine's ability to expand its role in domestic trade.

In 2024, Maine's TWL sector supported operations across a diverse set of industries, including several manufacturing and retail-related industries. Petroleum and Coal Products Manufacturing, Couriers and Messengers, Nonmetallic Mineral Product Manufacturing, Textile Mills, Primary Metal Manufacturing, and Food Manufacturing each dedicated around 5–6% of their revenues to TWL purchases, reflecting the importance of supply chain and freight services for moving raw materials and finished goods.

These industries collectively employ thousands of workers statewide, with Food Manufacturing alone supporting nearly 6,000 jobs.

Building on past research

The following reports, developed by Camoin Associates for Maine DECD's Domestic Trade Program, provide an industry overview and explain market opportunities and challenges related to TWL and domestic trade.

- The State of Transportation, Logistics, and Distribution in Maine (2025)
- Domestic Trade Industry Market Analysis (2023)
- Industry Profile: Logistics, Transportation and Warehousing (2023)

Top Industries Purchasing from Maine's TWL Sector, 2024

Industry Description	Pct. of Industry's Rev. Going to TWL	Total Jobs	Industry Description	Pct. of Industry's Rev. Going to TWL	Total Jobs
Petroleum and Coal Products Manufacturing	5%	455	Paper Manufacturing	2%	4,141
Couriers and Messengers	5%	3,959	Wood Product Manufacturing	2%	4,753
Nonmetallic Mineral Product Manufacturing	3%	1,430	Clothing, Clothing Accessories, Shoe, and Jewelry Retailers	2%	3,853
Textile Mills	3%	585	Gasoline Stations and Fuel Dealers	2%	10,125
Primary Metal Manufacturing	3%	282	Furniture, Home Furnishings, Electronics, and Appliance Retailers	2%	3,396
Food Manufacturing	3%	5,957	Textile Product Mills	2%	836
Economy-Wide Total				**1%**	**745,129**

Source: Lightcast

Other important contributors include Paper Manufacturing, Wood Product Manufacturing, Clothing and Jewelry Retailers, Gasoline Stations, Furniture and Home Furnishings Retailers, and Textile Product Mills, each allocating about 2% of revenue to TWL. Among these, Gasoline Stations and Fuel Dealers and Wood Product Manufacturing stand out due to their scale, supporting over 10,000 and 4,700 jobs, respectively.

The economy-wide totals show that while TWL accounts for just 1% ($1.4 billion) of revenue across all industries, the sector plays a critical role in supporting Maine's manufacturing and retail activities, serving as an essential backbone of the state's economy.

This TWL Workforce Analysis builds on a series of prior studies and takes a deeper look at the human capital side of the sector.[1] By focusing on workforce dynamics, this report highlights the challenges and opportunities Maine can address to strengthen its TWL sector, and by extension, the state's domestic trade competitiveness.

[1] This project is commissioned by the Office of Business Development and is funded by the Maine Jobs & Recovery Plan

Target Occupations

- Cargo and Freight Agents
- Captains, Mates, and Pilots of Water Vessels
- Management Analysts
- Transportation, Storage, and Distribution Managers
- First-Line Supervisors of Mechanics, Installers, and Repairers
- Locomotive Engineers
- First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors
- Dispatchers, Excluding Police, Fire, and Ambulance
- Railroad Conductors and Yardmasters
- Heavy and Tractor-Trailer Truck Drivers
- Light Truck Drivers
- Aircraft Mechanics and Service Technicians
- Bus and Truck Mechanics and Diesel Engine Specialists
- Shipping, Receiving, and Inventory Clerks
- Laborers and Freight, Stock, and Material Movers, Hand
- Industrial Truck and Tractor Operators
- Packers and Packagers, Hand

Target Occupation Overview

WORKFORCE:

16,038 Jobs in Maine's TWL industries

745,129 Jobs in Maine

MEDIAN HOURLY WAGES:

$24.20 for target TWL occupations

$23.68 for all occupations in Maine

AGE DISTRIBUTION OF WORKERS IN TWL:

21% are 35-44 years old

21% are 45-54 years old

22% are 55-64 years old

SEX:

83% Male

17% Female

RACE/ETHNICITY:

89% White

4% Black or African American

4% Hispanic or Latino

AVERAGE PREPARATION LEVEL:

The majority of the target occupations require **some preparation,** meaning workers entering these occupations typically need at least a high school diploma and some previous work-related skills. Employees can then be trained on the job within a few months to one year.

What We Found

Employment Trends Signal Urgency

This analysis shows that Maine's TWL sector is not keeping pace with national trends. While the United States added 33% more TWL jobs between 2015 and 2024, Maine lost 2%, a net decline of nearly 400 jobs. Projections indicate a further contraction of 713 jobs by 2030, even as national employment continues to grow.

For Maine businesses trying to compete in domestic markets, this means fewer drivers, warehouse staff, and logistics professionals available to move goods efficiently, adding friction to trade expansion. While the sector as a whole has declined, there is still an acute need for workers to replace those leaving the workforce due to retirements and other factors, as well as to train and stabilize the sector workforce for future growth.

Turning Workforce Challenges into Opportunities

The future of Maine's TWL sector comes down to people. Many of the 17 key occupations that keep goods moving, such as truck drivers, freight movers, warehouse supervisors, and vessel captains, are facing real pressure points. **Nearly three out of four of these jobs have an older-than-average workforce,** with a large share of employees over age 55. That means retirements are coming quickly, and the pipeline of new workers isn't large enough to keep up.

Truck drivers are the clearest example. Heavy and Tractor-Trailer Truck Drivers alone make up 42% of all jobs in the sector, yet their numbers are expected to decline in the years ahead.

This is more than a logistics problem: it is a trade problem. If Maine can't move products reliably and at scale, manufacturers, farmers, and other producers lose their ability to reach markets and grow their businesses. Addressing these workforce gaps is not just about filling jobs; it is about ensuring Maine companies can compete and thrive.

Preparing for Workforce Transitions

Beyond retirements, the sector also faces broader volatility. We measure this through a Workforce Volatility Index, which looks at how difficult it will be to fill critical positions in the years ahead. Several TWL occupations already show higher-than-average volatility, driven by a mix of retirements, dependence on out-of-state workers, and skill requirements that limit how quickly new workers can step in.

Jobs like Transportation Managers and Management Analysts are particularly vulnerable. These roles require a high degree of preparation, often a college degree and years of experience, which means it takes time and resources to build up the next generation of talent. When these workers leave, they cannot be replaced overnight.

> The challenge now is to turn this volatility into opportunity by investing in training, recruitment, and career pathways that ensure Maine's TWL workforce is strong enough to support long-term trade growth.

Investments Creating New Momentum

Since 2019, more than $297 million has been invested in logistics and related projects across Maine. Amazon has opened a new facility in Caribou and is in the process of opening a facility in Gorham. Form Energy is building a renewable energy hub in Lincoln, and international companies like TEMO (France) and BWA Yachting (Switzerland) have chosen Portland for expansion. Together, these investments are not only strengthening Maine's capacity for domestic and international trade, but they are also opening the door to new jobs, new partnerships, and a stronger economy. By pairing this wave of investment with strategic workforce development, Maine has the chance to fully capture the benefits of this growth and change the projected decline in the sector.

Preparing for the Sector's Future

Maine has already laid important groundwork through the efforts of partners such as the Maine Department of Labor, Maine Department of Education, Maine Community College System, University of Maine System, and industry groups like Manufacturers Association of Maine (MAME), all of whom are advancing workforce strategies to meet employer demand. These initiatives highlight the value of collaboration across state agencies, education providers, and industry associations to align training, recruitment, and retention strategies. Building on this momentum, the TWL sector represents another critical area of focus. By addressing workforce needs in TWL alongside other targeted industries, Maine can continue to strengthen its talent pipeline, support domestic trade, and ensure long-term economic competitiveness.

Build and Align Workforce Pipelines with Industry Needs

Maine must accelerate efforts to prepare residents for high-demand jobs by aligning training, education, and career pathways with what employers actually need.

This means expanding earn-and-learn models, apprenticeships, and certificate programs in critical TWL occupations such as truck drivers, logistics supervisors, and mechanics, while continuing to scale similar efforts in advanced manufacturing.

Workforce and sector partners need to work together to ensure programs are accessible, stackable, and linked to clear career ladders. By targeting young people, career changers, veterans, and underrepresented groups, Maine can widen the talent pool and begin to address looming retirements in these industries.

Strengthen Domestic Trade by Expanding TWL Capacity

To support manufacturers, agricultural producers, and other industries that rely on moving goods, DECD should focus on both workforce and infrastructure capacity.

This means training and retaining workers in critical occupations like heavy-truck drivers and vessel captains, while also advancing investments in ports, highways, warehousing, and digital logistics tools.

DECD can also help businesses adopt new technologies and improve supply chain efficiency, reducing bottlenecks that limit trade growth. In doing so, Maine will strengthen its ability to compete regionally and nationally while ensuring that new investments translate into real economic benefits across industries.

Advance a Unified Approach Through Collaboration

Maine's progress in workforce development has come from strong partnerships.

To take the next step, DECD should prioritize a coordinated, cross-sector approach that brings state agencies, education providers, and industry associations to the same table.

By aligning goals, sharing data, and coordinating resources, Maine can reduce duplication, fill gaps, and ensure that workforce strategies for TWL and other priority industries reinforce one another.

A unified approach will provide employers with consistent support and workers with clear, connected pathways across industries.

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TWL Workforce Analysis

Defining the Sector

Throughout this report, the "Transportation Warehousing and Logistics Sector" refers to a group of 55 industries.

Transportation, Warehousing, and Logistics (TWL) encompasses a variety of services and commodities that cannot be neatly defined using North American Industry Classification System (NAICS) codes.[2] To address this challenge, 55 six-digit NAICS industries were identified to represent Maine's TWL activities. Together, these industries are referred to as the TWL sector. Note that this is the same industry definition used in *The State of Transportation, Logistics, and Distribution in Maine report for 2025.*

Industries in the TWL Sector

NAICS	Description
Transportation	
481111	Scheduled Passenger Air Transp.
481112	Scheduled Freight Air Transp.
481211	Nonscheduled Chartered Passenger Air Transp.
481212	Nonscheduled Chartered Freight Air Transp.
481219	Other Nonscheduled Air Transp.
482110	Rail Transp.
483111	Deep Sea Freight Transp.
483112	Deep Sea Passenger Transp.
483113	Coastal & Great Lakes Freight Transp.
483114	Coastal & Great Lakes Passenger Transp.
483211	Inland Water Freight Transp.
483212	Inland Water Passenger Transp.
484110	General Freight Trucking, Local
484121	General Freight Trucking, Long-Distance, Truckload
484122	General Freight Trucking, Long-Distance, Less Than Truckload
484210	Used Household & Office Goods Moving
484220	Specialized Freight (except Used Goods) Trucking, Local
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance
485111	Mixed Mode Transit Systems
485112	Commuter Rail Systems
485113	Bus & Other Motor Vehicle Transit Systems
485119	Other Urban Transit Systems
485210	Interurban & Rural Bus Transp.
485310	Taxi Service
485320	Limousine Service
485410	School & Employee Bus Transp.
485510	Charter Bus Industry
485991	Special Needs Transp.
485999	All Other Transit & Ground Passenger Transp.
486110	Pipeline Transportation of Crude Oil
486210	Pipeline Transp. of Natural Gas
486910	Pipeline Transp. of Refined Petroleum Products
486990	All Other Pipeline Transp.
487110	Scenic & Sightseeing Transp., Land
487210	Scenic & Sightseeing Transp., Water
487990	Scenic & Sightseeing Transp., Other
488111	Air Traffic Control
488119	Other Airport Operations
488190	Other Support Activities for Air Transp.
488210	Support Activities for Rail Transp.
488310	Port & Harbor Operations
488320	Marine Cargo Handling
488330	Navigational Services to Shipping
488390	Other Support Activities for Water Transp.
488410	Motor Vehicle Towing
488490	Other Support Activities for Road Transp.
488510	Freight Transp. Arrangement
488991	Packing & Crating
488999	All Other Support Activities for Transp.
Warehousing & Storage	
493110	General Warehousing & Storage
493120	Refrigerated Warehousing & Storage
493130	Farm Product Warehousing & Storage
493190	Other Warehousing & Storage
Process, Physical Distribution, and Logistics Consulting Services	
541614	Process, Physical Distribution, & Logistics Consulting Services
Packaging & Labeling Services	
561910	Packaging & Labeling Services

Source: NAICS, Camoin Associates

[2] *A NAICS code is a number used by businesses and government agencies to classify industries in the US, Canada, and Mexico. NAICS codes follow a hierarchical structure, with two-digit codes being the broadest and six-digit codes being the most specific.*

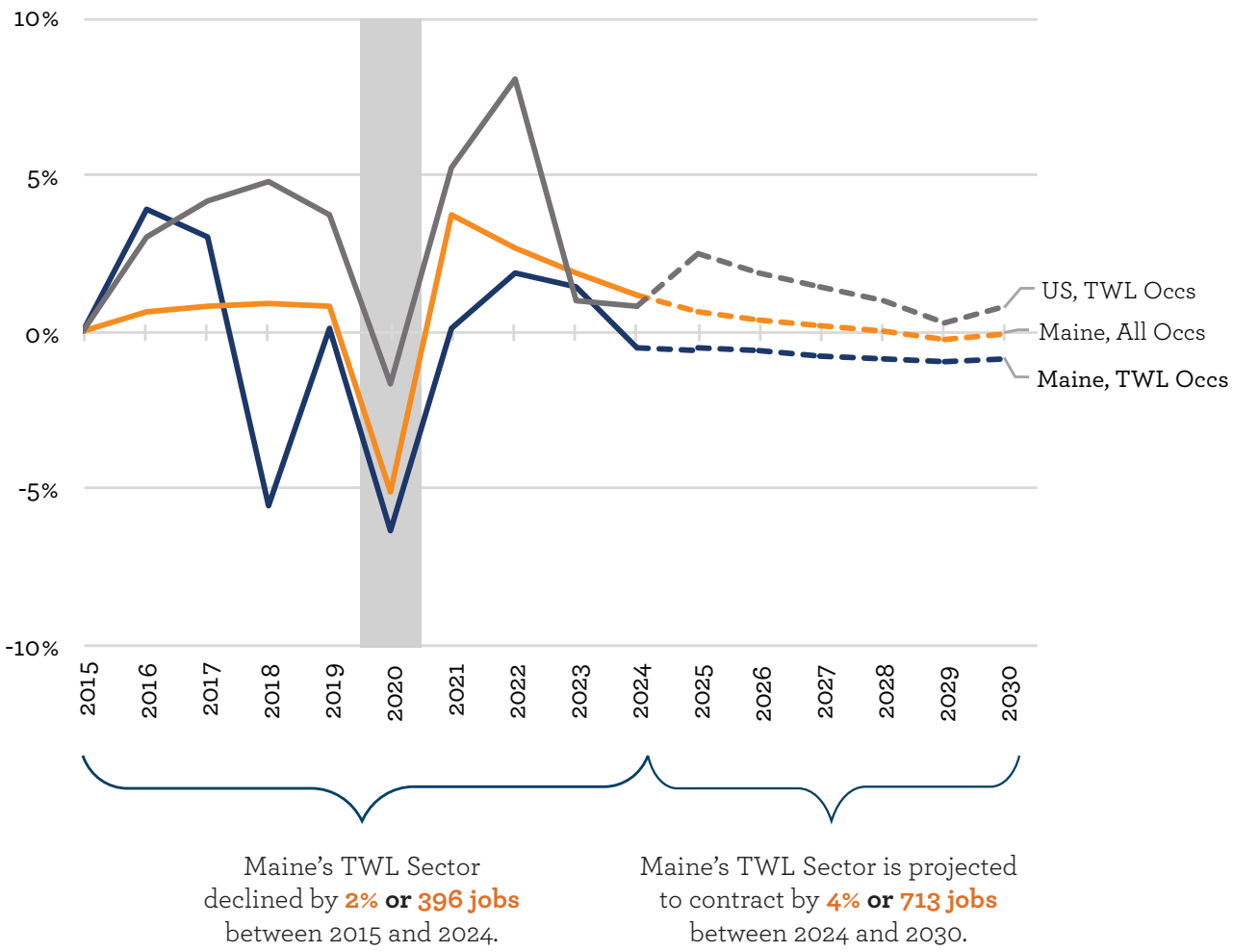
Sector Job Growth

Between 2015 and 2024, employment in Maine's TWL sector has been volatile, experiencing both periods of growth and sharp decline. Between 2014 and 2024, jobs in Maine's TWL sector declined by 2% compared to 8% growth across all industries in the state and 33% growth nationally during the same period.

Maine's TWL sector experienced significant setbacks in 2018 and 2020, with job losses of -6% each year. The sharp decline in 2020 was likely driven by the impacts of the COVID-19 pandemic. More broadly, Maine's TWL sector's employment growth has generally trailed the overall state economy and national trends.

In the next five years, the TWL sector is projected to contract by 4%, compared to 1% job growth in Maine's overall economy, losing an estimated 713 jobs. These losses will be driven by declines in multiple industries, with the largest employment declines occurring in General Warehousing and Storage, General and Specialized Freight Trucking, and School and Employee Bus Transportation. In contrast to Maine's projections, the sector is projected to grow by 5% nationally .

Historic and Project Job Growth, TWL Sector, Year-Over-Year, 2015-2030



Note: The shaded area indicates the onset of the COVID-19 pandemic. The dotted lines represent projected job growth.
Source: Lightcast

Target Occupation Overview

Identifying Target Occupations

Using Lightcast's Staffing Patterns data, we identified 17 five-digit Standard Occupation Classification (SOC) target occupations based on their impact on Maine's TWL sector.[3] These occupations were selected because they have a relatively high presence (by number of jobs) in the sector, the activities performed by the occupation are highly specific to the sector, and/or the occupation has high projected job growth.

We use five-digit occupations because they provide detailed education and work experience requirements, as well as information related to on-the-job training. The figure below includes the target occupations and common job titles associated with each occupation.

Target Occupations and Example Job Titles

Transport., Storage, & Distribution Managers	**Management Analysts**	**Cargo & Freight Agents**
- Distribution Center Manager - Fleet Manager - Supply Chain Logistics Manage	- Administrative Analyst - Organizational Development Consultant - Program Management Analyst	- Air Export Specialist - Freight Broker - Traffic and Documentation Clerk
Shipping, Receiving, & Inventory Clerks	**First-Line Supervisors of Mechanics, Installers, & Repairers**	**Aircraft Mechanics & Service Technicians**
- Order Fulfillment Specialist - Receiving Clerk - Shipping Clerk	- Electrical and Instrumentation Supervisor - Maintenance Coordinator - Service Manager	- Aircraft Maintenance Technician - Airframe and Powerplant Mechanic - Helicopter Mechanic
Laborers & Freight, Stock, & Material Movers, Hand	**First-Line Supervisors of Transport. & Material Moving Workers, Exc. Air Cargo**	**Heavy & Tractor-Trailer Truck Drivers**
- Merchandise Pick Up Associate - Shipping and Receiving Materials Handler - Warehouse Worker	- DC Supervisor (Distribution Center Supervisor) - Dock Supervisor - Fleet Manager	- CDL (Commercial Driver's License) Driver - Line Haul Driver - Over the Road Driver (OTR Driver)
Locomotive Engineers	**Railroad Conductors & Yardmasters**	**Captains, Mates, & Pilots of Water Vessels**
- Passenger Locomotive Engineer - Through Freight Engineer - Train-master	- Conductor - Railroad Conductor - Yardmaster	- Ferry Boat Captain - First Mate - Harbor Pilot
Dispatchers, Excluding Police, Fire, & Ambulance	**Bus & Truck Mechanics & Diesel Engine Specialists**	**Light Truck Drivers**
- Aircraft Dispatcher - Train Dispatcher - Truck Dispatcher	- Diesel Technician (Diesel Tech) - Fleet Mechanic - Heavy Truck Mechanic	- Bulk Delivery Driver - Package Car Driver - Warehouse Driver
Industrial Truck & Tractor Operators	**Packers & Packagers, Hand**	
- Fork Lift Technician - Lift Truck Operator - Spotter Driver	- Bagger - Pack Out Operator - Packaging Specialist	

Source: O*Net

[3] *The Standard Occupational Classification (SOC) system is a federal statistical standard used in the United States to classify workers into occupational categories.*

O*Net Job Description for Target Occupations

Transport., Storage, & Distribution Managers

Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers.

Management Analysts

Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Includes program analysts and management consultants.

Cargo & Freight Agents

Expedite and route movement of incoming and outgoing cargo and freight shipments in airline, train, and trucking terminals and shipping docks. Take orders from customers and arrange pickup of freight and cargo. Prepare and examine bills of lading to determine shipping charges and tariffs.

Shipping, Receiving, & Inventory Clerks

Verify and maintain records on incoming and outgoing shipments involving inventory. Duties include verifying and recording incoming merchandise or material and arranging for the transportation of products. May prepare items for shipment.

First-Line Supervisors of Mechanics, Installers, & Repairers

Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.

Aircraft Mechanics & Service Technicians

Diagnose, adjust, repair, or overhaul aircraft engines and assemblies, such as hydraulic and pneumatic systems.

Laborers & Freight, Stock, & Material Movers, Hand

Manually move freight, stock, luggage, or other materials, or perform other general labor. Includes all manual laborers not elsewhere classified.

First-Line Supervisors of Transport. & Material Moving Workers, Exc. Air Cargo

Directly supervise and coordinate activities of material-moving machine and vehicle operators and helpers.

Heavy & Tractor-Trailer Truck Drivers

Drive a tractor-trailer combination or a truck with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW). May be required to unload truck. Requires a Commercial Driver's License. Includes tow truck drivers.

Locomotive Engineers

Drive electric, diesel-electric, steam, or gas-turbine-electric locomotives to transport passengers or freight. Interpret train orders, electronic or manual signals, and railroad rules and regulations.

Railroad Conductors & Yardmasters

Conductors coordinate activities of train crew on passenger or freight trains. Yardmasters review train schedules and switching orders and coordinate activities of workers engaged in railroad traffic operations, such as the makeup or breakup of trains and yard switching.

Captains, Mates, & Pilots of Water Vessels

Command or supervise operations of ships and water vessels, such as tugboats and ferryboats. Required to hold license issued by US Coast Guard.

Dispatchers, Excluding Police, Fire, & Ambulance

Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of materials, freight, or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business.

Bus & Truck Mechanics & Diesel Engine Specialists

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.

Light Truck Drivers

Drive a light vehicle, such as a truck or van, with a capacity of less than 26,001 pounds Gross Vehicle Weight (GVW), primarily to pick up merchandise or packages from a distribution center and deliver. May load and unload vehicle.

Industrial Truck & Tractor Operators

Operate industrial trucks or tractors equipped to move materials around a warehouse, storage yard, factory, construction site, or similar location.

Packers & Packagers, Hand

Pack or package by hand a wide variety of products and materials.

Source: O*Net

Source: O*Net

Identifying Target Occupations

The 17 target occupations account for 59% of total jobs in Maine's TWL sector.

Heavy and Tractor-Trailer Truck Drivers represent the largest share of employment among the target occupations (4,836 jobs, or 30% of all jobs in the TWL sector). Other significant occupations include **Laborers and Freight, Stock, and Material Movers** (886 jobs, or 6% of all jobs in the TWL sector) and **Industrial Truck and Tractor Operators** (940 jobs, or 6% of all jobs in the TWL sector). As with all occupations, workers in these target occupations are often employed across multiple industries. However, many TWL target occupations are highly concentrated within the sector itself. For example, 97% of Locomotive Engineers and 81% of Railroad Conductors and Yardmasters in Maine are employed within the TWL sector, indicating a high degree of specialization. This level of specialization reduces cross-industry competition for these workers, making the stability of the TWL workforce particularly important.

Overall, the TWL target occupations highlight both the sector's reliance on specialized roles and the importance of ensuring a pipeline of skilled workers to meet future demand .

TWL Target Occupations

SOC	Description	2024 TWL Jobs	2024 Jobs	% of Occupation's Jobs in the TWL Sector	Occupations % of Total TWL Sector Jobs
11-3071	Transportation, Storage, & Distribution Managers	119	638	19%	1%
13-1111	Management Analysts	62	3,795	2%	0%
43-5011	Cargo & Freight Agents	166	244	68%	1%
43-5032	Dispatchers, Except Police, Fire, & Ambulance	268	801	34%	2%
43-5071	Shipping, Receiving, & Inventory Clerks	194	2,570	8%	1%
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	98	2,894	3%	1%
49-3011	Aircraft Mechanics & Service Technicians	146	494	30%	1%
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	364	1,764	21%	2%
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	391	2,473	16%	2%
53-3032	Heavy & Tractor-Trailer Truck Drivers	4,836	11,497	42%	30%
53-3033	Light Truck Drivers	301	4,455	7%	2%
53-4011	Locomotive Engineers	111	114	97%	1%
53-4031	Railroad Conductors & Yardmasters	141	175	81%	1%
53-5021	Captains, Mates, & Pilots of Water Vessels	262	392	67%	2%
53-7051	Industrial Truck & Tractor Operators	940	3,030	31%	6%
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	886	6,491	14%	6%
53-7064	Packers & Packagers, Hand	130	1,650	8%	1%
	Total	**9,414**	**43,477**	**22%**	**59%**

Source: Lightcast

Target Occupation Detail: Growth

7 of the 17 target occupations are expected to grow in the next five years. Overall, growth in Maine's target occupations lags growth at the national level.

Job growth is an indicator of future demand for workers. High demand, signaled by strong job growth, can make hiring more competitive. However, more than half of the TWL target occupations are expected to shrink, indicating that hiring may become less competitive as demand for those workers decreases.

Heavy and Tractor-Trailer Truck Drivers and **Industrial Truck and Tractor Operators** will experience the highest job losses. Marginal job gains are projected for **Captains, Mates, and Pilots of Water Vessels, and Aircraft Mechanics,** and **Service Technicians** .

TWL Sector Job Growth, 2024-2029

SOC	Description	Job Change, Maine	% Change, Maine	% Change, US
11-3071	Transportation, Storage, & Distribution Managers	2	2%	11%
13-1111	Management Analysts	5	8%	11%
43-5011	Cargo & Freight Agents	(10)	(6%)	8%
43-5032	Dispatchers, Except Police, Fire, & Ambulance	(12)	(4%)	4%
43-5071	Shipping, Receiving, & Inventory Clerks	(21)	(11%)	5%
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	1	1%	7%
49-3011	Aircraft Mechanics & Service Technicians	8	5%	8%
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	(20)	(6%)	4%
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	(11)	(3%)	9%
53-3032	Heavy & Tractor-Trailer Truck Drivers	(330)	(7%)	5%
53-3033	Light Truck Drivers	(8)	(2%)	9%
53-4011	Locomotive Engineers	3	3%	(1%)
53-4031	Railroad Conductors & Yardmasters	4	3%	(1%)
53-5021	Captains, Mates, & Pilots of Water Vessels	17	6%	6%
53-7051	Industrial Truck & Tractor Operators	(94)	(10%)	8%
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	(25)	(3%)	9%
53-7064	Packers & Packagers, Hand	(10)	(8%)	3%
	Total Target Occupations	**(501)**	**(5%)**	**6%**
	Total TWL Sector	**(582)**	**(4%)**	**7%**

Source: Lightcast

Target Occupation Details: Skills

Occupations that require a high level of skill are often harder to fill. However, about 59% of occupations included in this study are accessible to beginners and require only some preparation.

The Bureau of Labor Statistics Occupation Outlook Handbook and O*NET group occupations are based on the level of preparation needed to do the work. This measure includes:

- How much education do people need to do the work
- How much related experience do people need to do the work
- How much on-the-job training do people need to do the work

Preparation Levels Explained

Considerable Preparation Needed:

These occupations typically require a bachelor's degree or equivalent work experience. Workers often receive on-the-job training to enhance their existing work experience.

Medium Preparation Needed:

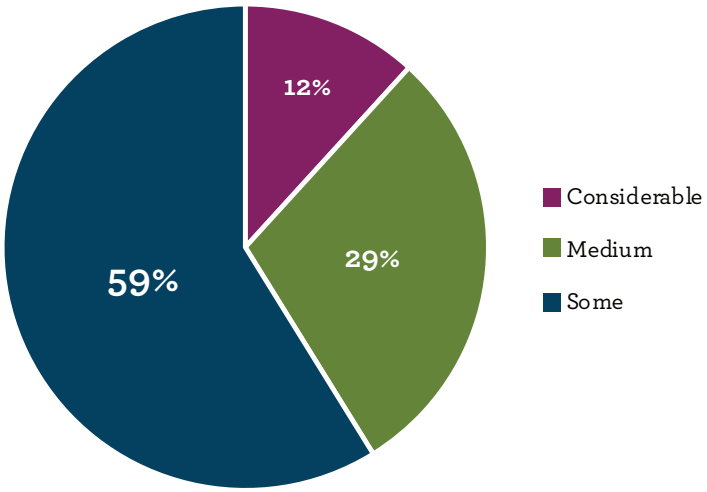
Most occupations require vocational school training, one to two years of on-the-job training, or an associate's degree. Some may require additional licensing.

Some Preparation Needed:

These occupations typically require a high school diploma and some previous work-related skills, but employees can be trained on the job within a few months to one year.

Little or No Preparation Needed: These occupations may require a high school diploma or GED certificate, but little or no previous work-related skill, knowledge, or experience is needed. Workers in these jobs can be trained in a few days to a few months, depending on the position. **This preparation level is not included in the chart because all the target occupations require at least some preparation.**

Preparation Level Needed for Target Occupations



Source: Lightcast

Source: Lightcast, BLS, O*NET
Note: Preparation levels are not specific to Maine and are standard across the US.

Target Occupation Detail: Skills

While most target occupations are accessible to those just entering the industry, seven occupations require at least a medium level of preparation.

Five target occupations require a medium level of preparation, meaning they either require some previous work experience or increased on-the-job training.

1. **First-Line Supervisors of Mechanics, Installers, and Repairers**
2. **Aircraft Mechanics and Service Technicians**
3. **Bus and Truck Mechanics and Diesel Engine Specialists**
4. **First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors**
5. **Captains, Mates, and Pilots of Water Vessels**

Two target occupations—**Transportation, Storage, and Distribution Managers** and **Management Analysts**—require a considerable level of preparation to do the work, meaning they require at least a bachelor's degree. These jobs have a higher barrier to entry, which may make hiring more difficult for Maine employers .

Preparation Level Needed for Target Occupations

Description	Preparation Level	Profile of a Typical Entry-Level Worker*
Transportation, Storage, & Distribution Managers	Considerable	- **Education:** Bachelor's degree or equivalent work experience - **Work Experience Required:** Several years - **On-The-Job Training:** Several years
Management Analysts		
First-Line Supervisors of Mechanics, Installers, & Repairers	Medium	- **Education:** Vocational school or an associate's degree - **Work Experience Required:** Previous work-related skill or knowledge, either from experience or education - **On-The-Job Training:** Anywhere from one year to two years
Aircraft Mechanics & Service Technicians		
Bus & Truck Mechanics & Diesel Engine Specialists		
First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors		
Captains, Mates, & Pilots of Water Vessels		
Cargo & Freight Agents	Some	- **Education:** HS or equivalent degree - **Work Experience Required:** Some previous work-related skill, knowledge, or experience - **On-The-Job Training:** Anywhere from a few months to one year. Employees starting with more experience may need less on-the-job training.
Dispatchers, Excluding Police, Fire, & Ambulance		
Shipping, Receiving, & Inventory Clerks		
Laborers & Freight, Stock, & Material Movers, Hand		
Heavy & Tractor-Trailer Truck Drivers		
Light Truck Drivers		
Locomotive Engineers		
Railroad Conductors & Yardmasters		
Industrial Truck & Tractor Operators		
Packers & Packagers, Hand		

*This is meant to represent typical entry-level workers. Actual worker experience and education may vary.
Note: Preparation levels are not specific to Maine and are standard across the US.

Source: Lightcast, O*NET

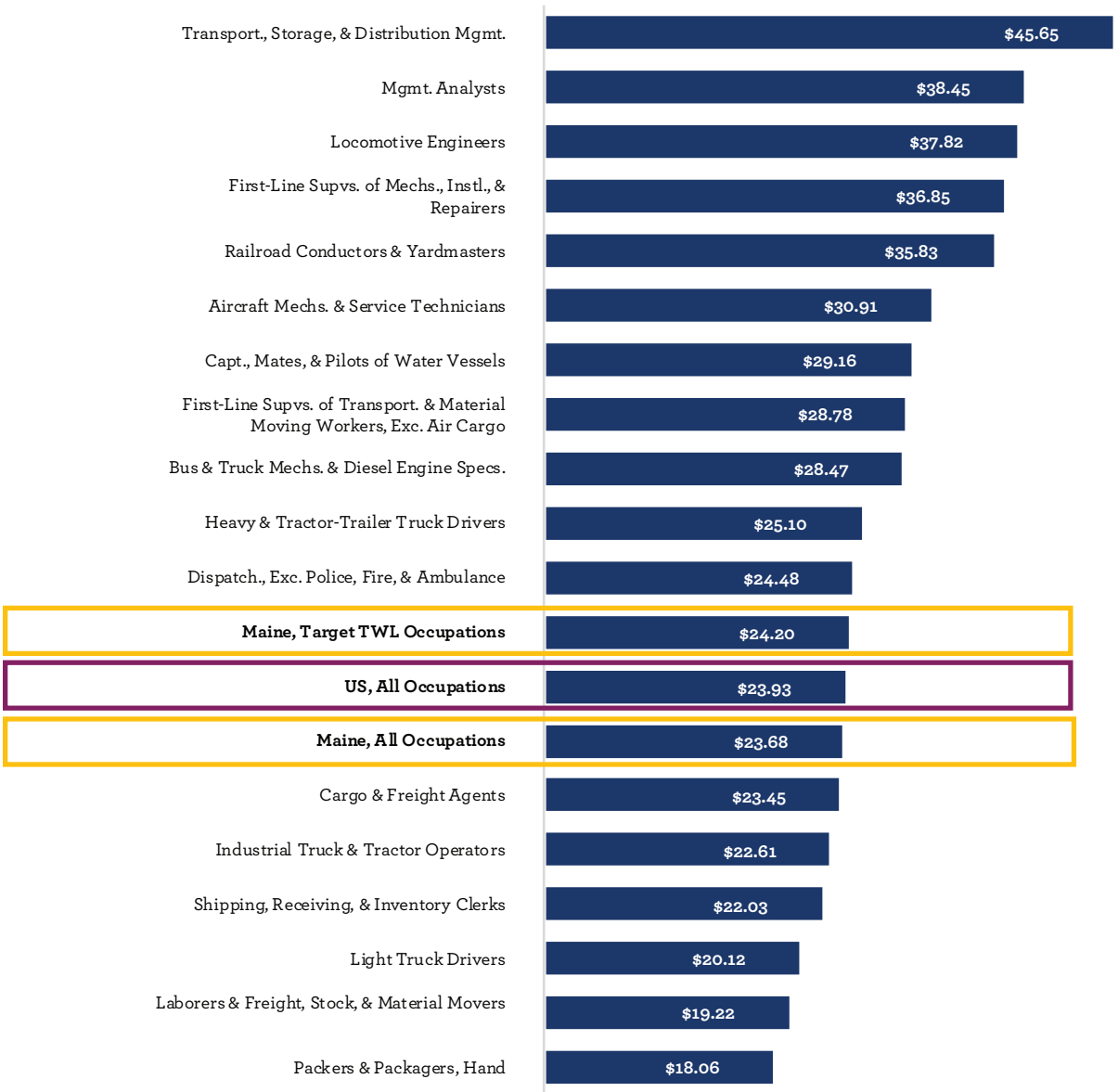
Target Occupation Details: Median Hourly Wages

11 out of 17 target occupations have higher median hourly earnings than the state average.

The median hourly wages in Maine ($23.68) are slightly below the median wages in the US ($23.93). This may make Maine slightly less attractive for workers and slightly more attractive to employers. However, because the difference in earnings is so small, it likely will have little influence in either direction.

For TWL occupations in Maine, **Transportation, Storage, and Distribution Managers** earn a median of $45.65 per hour, nearly double Maine's overall median of $23.68. Similarly, **Management Analysts** and **Locomotive Engineers** outpace the state average by $15 or more per hour. By contrast, some entry-level roles like **Packers and Packagers** and **Laborers and Freight, Stock, and Material Movers** fall below both the Maine and US overall medians, highlighting a wide wage range across the sector .

Median Hourly Earnings for Target Occupations, Maine, 2024



Source: Lightcast

Target Occupation Detail: Age

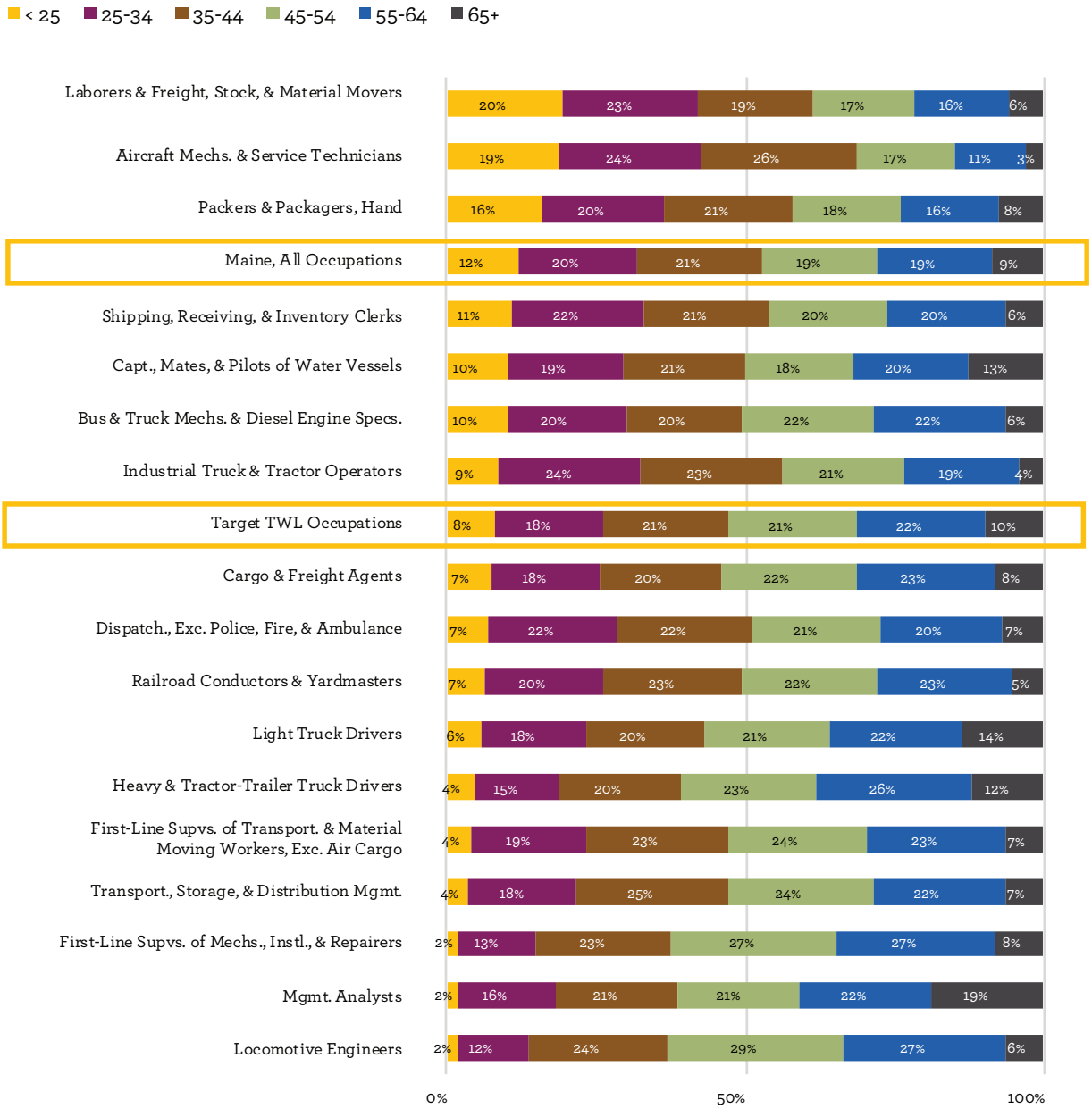
12 of the 17 TWL target occupations have a higher share of workers aged 55+ than the state's total workforce.

Five occupations with the largest share of workers aged 55+ are:

1. **Locomotive Engineers**
2. **First-Line Supervisors of Mechanics, Installers, and Repairers**
3. **Light Truck Drivers**
4. **Heavy and Tractor-Trailer Truck Drivers**
5. **Management Analysts**

Occupations with a high share of workers aged 55+ may face workforce challenges as retirements increase. These challenges may be amplified for occupations that require considerable preparation, such as **Management Analysts** and **Transportation, Storage, and Distribution Managers**, because the specialized training requirements limit the potential labor pool from which employers can hire .

Target Occupations by Age, Maine, 2024



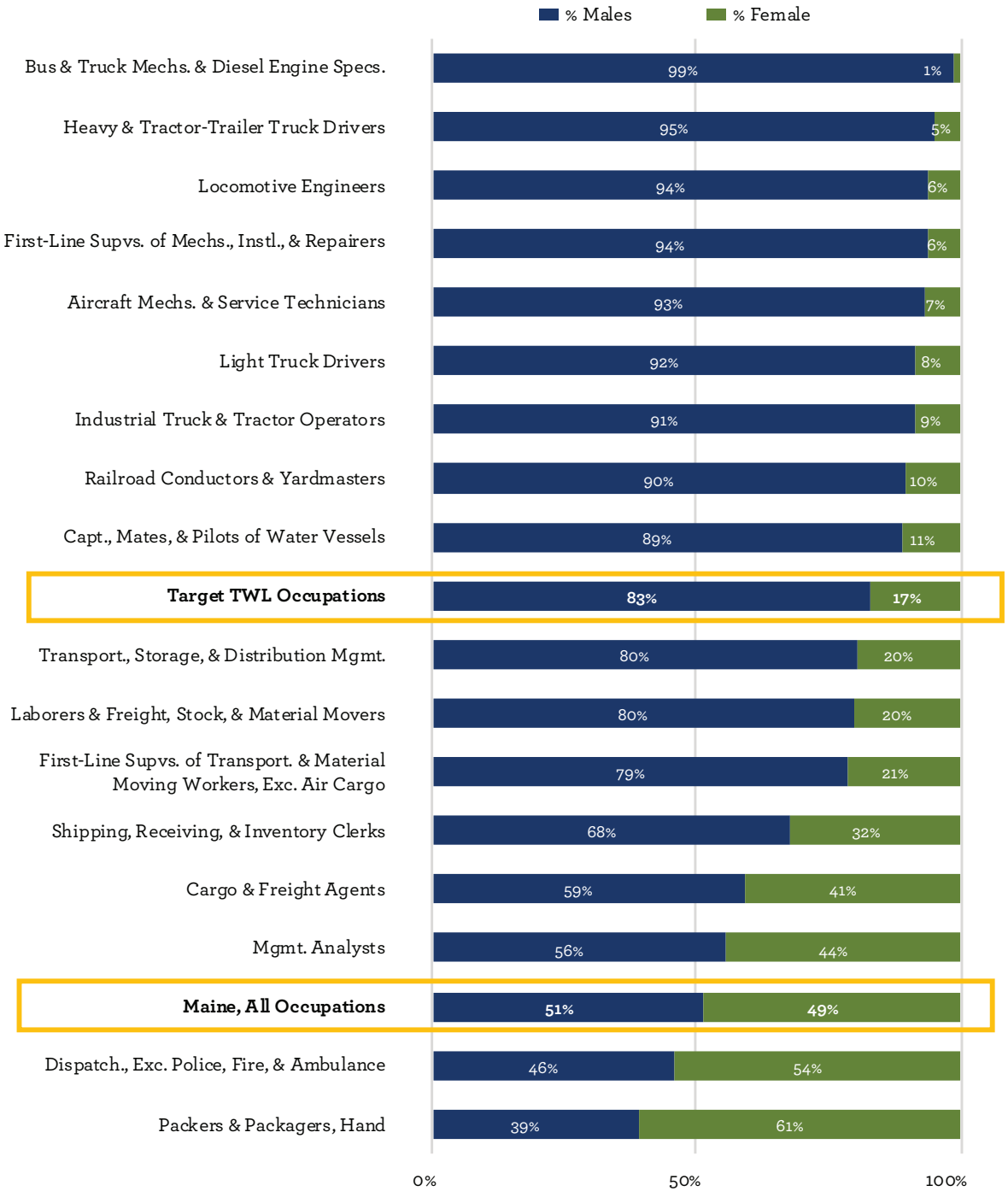
Source: Lightcast

Target Occupation Detail: Sex

Workers in Maine's TWL target occupations are predominantly male, with Packers and Packagers, Hand and Dispatchers, Excluding Police, Fire, and Ambulance, being the only two occupations with a share of female workers >50%.

This is counter to the overall makeup of the workforce, which is around 50% female and 50% male.

Target Occupations by Sex, Maine, 2024



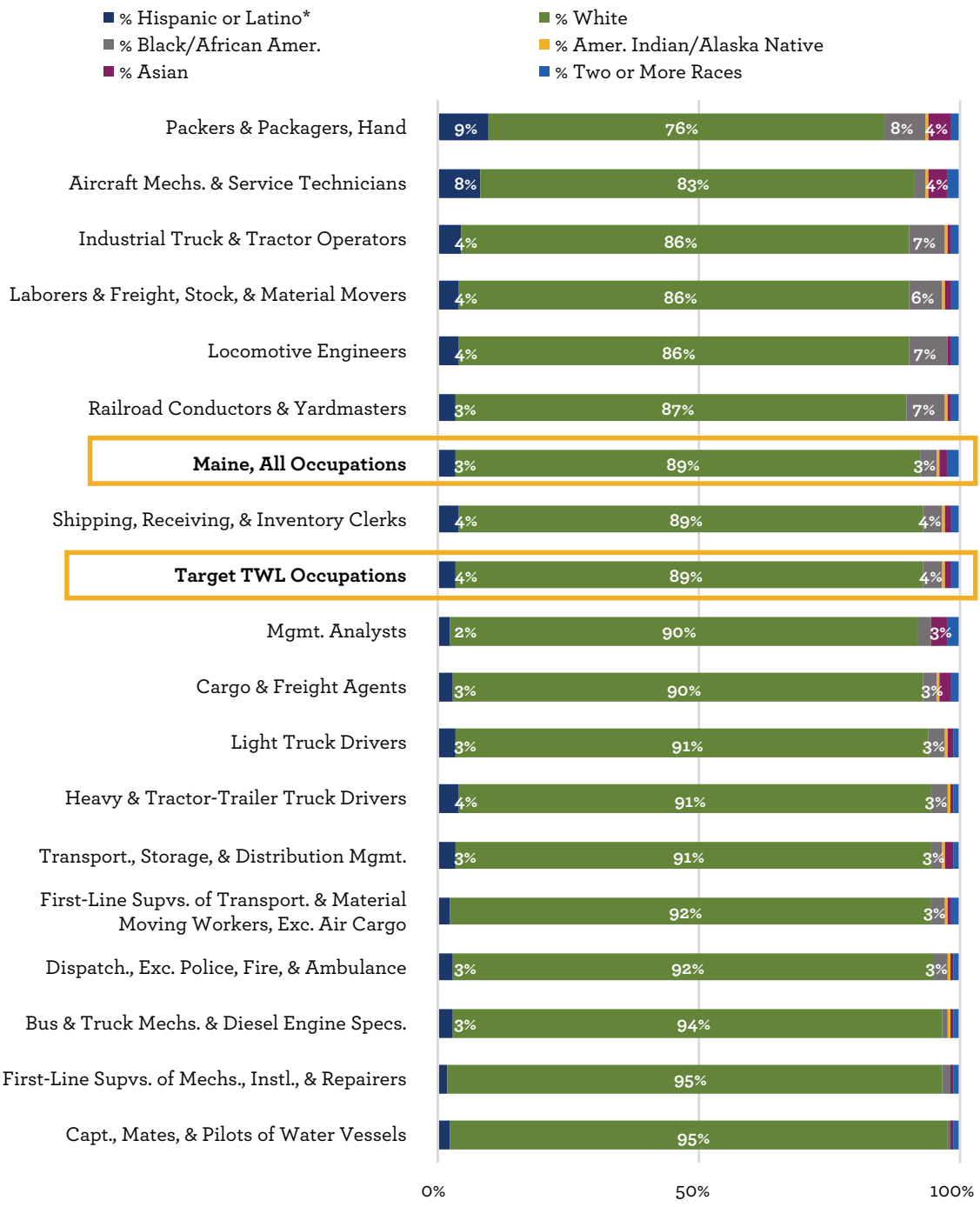
Source: Lightcast

Target Occupation Detail: Race and Ethnicity

Compared to all occupations in the state, 6 of the 17 target occupations are more racially diverse.

Packers and Packagers, Hand has the smallest share of white workers and the largest shares of Hispanic/Latino workers (9%) and Black/African American workers (8%).

Target Occupations by Race/Ethnicity, Maine, 2024



Note: Labels included for population shares >3%

*Individuals of Hispanic or Latino Origin may be of any race

Source: Lightcast

Workforce Volatility Index

The Index Explained

The Workforce Volatility Index shows the relative volatility (how hard it will be to fill jobs) of each target occupation from 2024 to 2029 compared to the overall workforce volatility in Maine's economy. The index includes six data points and considers supply-side and demand-side factors. The Total Workforce Volatility Index Score is equal to the average of these six indices.

DEMAND-SIDE FACTORS

Openings Per Job Index: This index measures total job openings divided by the number of years in the study period (2024 to 2029). Total job openings account for the gap between job growth and the replacement rate, as identified by Lightcast. This index indicates unfilled demand in each occupation.

Job Growth Index: This component measures the job growth rate for TWL sector employees compared to job growth for all workers in the occupation, regardless of sector. This component accounts for the sector's unique job growth expectations.

Human Capital Index: This is an adjusted index value of Lightcast's US Automation Index, which analyzes the potential level of automation that occupations have based on that occupation's job tasks. Occupations with high levels of automation may face fewer workforce challenges in the next decade, as automation may mitigate tight labor conditions.

SUPPLY-SIDE FACTORS

Resident Workers Index: The total number of resident workers, or workers in an occupation that live in Maine, compared to the total number of jobs. If there are fewer resident workers than jobs, Maine has a worker shortage and needs to import workers from other states.

Retirement Risk Index: This index accounts for the share of workers in an occupation who are aged 55+. If the occupation has a higher share of workers aged 55+ compared to the overall average for all occupations, the occupation is likely to face greater workforce volatility due to the likelihood of more near-term retirements.

Replacement Rate Index: The rate of workers leaving an occupation permanently, for example, due to a career change, that will need to be replaced by new hires. If the occupation has a higher replacement rate, it will face greater workforce volatility than average.

WORKFORCE VOLATILITY INDEX >100

The occupation's workforce volatility is **greater than the average** volatility across all occupations in the state. Filling positions in that occupation group will be relatively challenging.

WORKFORCE VOLATILITY INDEX >100

The occupation's workforce volatility is **less than the average** volatility across all occupations in the state.

Summary of Workforce Volatility Index

Four of the target TWL occupations score high on the Workforce Volatility Index, which suggests that they may become increasingly challenging to fill in the next five years.

An additional four occupations have index values of 99 or 100. If any demand or supply-side factors shift, these occupations may face greater workforce needs in the future .

Summary of Total Workforce Volatility Index Values, Maine Transportation, Warehousing, and Logistics Occupations, 2024-2029

SOC Code	Description	Total Workforce Volatility Index
Occupations with a HIGH Workforce Volatility Index (>100)		
43-5011	Cargo & Freight Agents	104
53-5021	Captains, Mates, & Pilots of Water Vessels	103
13-1111	Management Analysts	102
11-3071	Transportation, Storage, & Distribution Managers	101
Occupations with a CUSP Workforce Volatility Index (99-100)		
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	100
53-4011	Locomotive Engineers	100
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	100
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	100
53-4031	Railroad Conductors & Yardmasters	100
53-3032	Heavy & Tractor-Trailer Truck Drivers	99
Occupations with a LOW Workforce Volatility Index (<100)		
53-3033	Light Truck Drivers	98
49-3011	Aircraft Mechanics & Service Technicians	97
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	96
43-5071	Shipping, Receiving, & Inventory Clerks	96
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	95
53-7051	Industrial Truck & Tractor Operators	94
53-7064	Packers & Packagers, Hand	94

Source: Lightcast, Camoin Associates

Summary of Workforce Volatility Index

In the next decade, supply-side and demand-side components will play similar roles in driving high workforce volatility.

On the supply side, several occupations show Retirement Risk Index values above 105, including **Heavy and Tractor-Trailer Truck Drivers** (110), **Management Analysts** (113), **First-Line Supervisors of Mechanics, Installers, and Repairers** (107), and **Locomotive Engineers** (106). These scores highlight the demographic reality of an aging workforce and the challenge of replacing experienced workers as they exit the labor market.

The Resident Worker Index will be a key driver of workforce volatility (values >100) for several TWL occupations in Maine, including **Cargo and Freight Agents** (118) and **Captains, Mates, and Pilots of Water Vessels** (109). This indicates that Maine relies heavily on workers commuting in from outside the state or region, which means Maine may not have enough workers in these occupations living in-state.

By contrast, demand-side pressures are most evident in occupations projected to grow, such as **Captains, Mates, and Pilots of Water Vessels** (Job Growth Index 104). While this role shows stronger employment prospects, the positive growth will increase the demand for workers and the demand-side pressure .

Summary of Workforce Volatility Index Values by Component, Maine TWL Occupations, 2024-2029

		Demand Component Indices			Supply Component Indices			
SOC Code	Description	Openings per Job	Job Growth	Human Capital	Resident Worker	Retirement Risk	Replacement Rate	Total Workforce Volatility Index
43-5011	Cargo & Freight Agents	98	95	109	118	104	98	**104**
53-5021	Captains, Mates, & Pilots of Water Vessels	100	104	103	109	104	100	**103**
13-1111	Management Analysts	99	96	109	98	113	97	**102**
11-3071	Transportation, Storage, & Distribution Managers	98	98	112	104	101	97	**101**
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	97	100	106	97	107	97	**100**
53-4011	Locomotive Engineers	98	100	106	96	106	97	**100**
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	99	97	106	98	102	99	**100**
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	98	97	105	101	99	98	**100**
53-4031	Railroad Conductors & Yardmasters	98	100	102	100	100	98	**100**
53-3032	Heavy & Tractor-Trailer Truck Drivers	99	96	90	97	110	99	**99**
53-3033	Light Truck Drivers	99	95	87	96	108	99	**98**
49-3011	Aircraft Mechanics & Service Technicians	97	105	99	99	87	97	**97**
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	97	97	85	100	101	97	**96**
43-5071	Shipping, Receiving, & Inventory Clerks	98	93	91	95	98	99	**96**
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	102	94	83	95	93	102	**95**
53-7051	Industrial Truck & Tractor Operators	98	92	81	99	95	99	**94**
53-7064	Packers & Packagers, Hand	103	93	77	91	96	103	**94**

Source: Lightcast, Camoin Associates

Index by Component: Openings Per Job (Demand Side)

Two target occupations are expected to face demand-side workforce pressure due to relatively high job turnover.

A greater number of openings per job indicates that employers will need more new hires between 2024 and 2029 relative to current employment levels. If an occupation has an Openings Per Job Index above 100, then demand for new hires in that occupation (regardless of sector) will outpace demand for new hires across all occupations. This makes hiring more competitive and can create an employer-side workforce gap.

Laborers and Freight, Stock, and Material Movers, Hand and Packers and Packagers, Hand have Openings Per Job Index values above 100.

Summary of Workforce Volatility Index Values by Component, Maine Transportation, Warehousing, and Logistics Occupations, 2024-2029

SOC Code	Description	2024 Jobs	2024-2029 Avg. Annual Openings	Openings per Job Index	Total Workforce Volatility Index
43-5011	Cargo & Freight Agents	244	24	98	104
53-5021	Captains, Mates, & Pilots of Water Vessels	392	47	100	103
13-1111	Management Analysts	3,795	409	99	102
11-3071	Transportation, Storage, & Distribution Managers	638	59	98	101
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	2,894	243	97	100
53-4011	Locomotive Engineers	114	10	98	100
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	2,473	251	99	100
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	801	76	98	100
53-4031	Railroad Conductors & Yardmasters	175	16	98	100
53-3032	Heavy & Tractor-Trailer Truck Drivers	11,497	1,189	99	99
53-3033	Light Truck Drivers	4,455	491	99	98
49-3011	Aircraft Mechanics & Service Technicians	494	44	97	97
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	1,764	144	97	96
43-5071	Shipping, Receiving, & Inventory Clerks	2,570	249	98	96
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	6,491	912	102	95
53-7051	Industrial Truck & Tractor Operators	3,030	303	98	94
53-7064	Packers & Packagers, Hand	1,650	240	103	94

Note: These data reflect employment in each occupation, regardless of the sector in which individuals are employed.
Source: Lightcast, Camoin Associates

Data Definition | 2024-2029 Average Annual Openings: While job growth captures new demand, annual openings capture **demand due to turnover**. Lightcast estimates this using a rate of replacement per occupation developed by the Bureau of Labor Statistics. Annual openings capture job growth and the replacement needs of the occupation.

Index by Component: Job Growth Index (Demand Side)

Two occupations are expected to face demand-side workforce pressures due to relatively high net new job growth.

Unlike the Openings Per Job Index, this component accounts for the TWL sector's unique job growth expectations. If an occupation has a Job Growth Index above 100, then job growth for the TWL sector employees will outpace job growth for all workers in that occupation. This reflects an increasing demand for TWL sector-based workers in that occupation.

job growth indicates a strong economic outlook, it can also create challenges for employers, since competition for workers increases as more businesses try to hire from the same labor pool. Strong growth in **Captains, Mates, and Pilots of Water Vessels** and **Aircraft Mechanics and Service Technicians** may make hiring for these jobs more competitive .

Summary of Workforce Volatility Index Values by Component, Maine Transportation, Warehousing, and Logistics Occupations, 2024-2029

SOC Code	Description	2024-2029 Job Growth	2024-2029 Transportation, Warehousing, and Logistics Job Growth	Job Growth Index	Total Workforce Volatility Index
43-5011	Cargo & Freight Agents	(1.3%)	(5.8%)	95	104
53-5021	Captains, Mates, & Pilots of Water Vessels	2.4%	6.3%	104	103
13-1111	Management Analysts	12.0%	8.2%	96	102
11-3071	Transportation, Storage, & Distribution Managers	3.9%	1.9%	98	101
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	1.1%	0.6%	100	100
53-4011	Locomotive Engineers	2.7%	2.8%	100	100
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	(0.1%)	(2.9%)	97	100
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	(1.4%)	(4.5%)	97	100
53-4031	Railroad Conductors & Yardmasters	2.3%	2.7%	100	100
53-3032	Heavy & Tractor-Trailer Truck Drivers	(3.0%)	(6.8%)	96	99
53-3033	Light Truck Drivers	2.7%	(2.5%)	95	98
49-3011	Aircraft Mechanics & Service Technicians	0.5%	5.5%	105	97
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	(2.6%)	(5.5%)	97	96
43-5071	Shipping, Receiving, & Inventory Clerks	(3.9%)	(10.7%)	93	96
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	3.4%	(2.8%)	94	95
53-7051	Industrial Truck & Tractor Operators	(2.3%)	(10.0%)	92	94
53-7064	Packers & Packagers, Hand	(0.6%)	(8.0%)	93	94

Source: Lightcast, Camoin Associates

Index by Component: Human Capital Index (Demand Side)

Nine occupations are expected to feel demand-side workforce pressure due to their relatively high human capital requirements.

1. Cargo and Freight Agents
2. Captains, Mates, and Pilots of Water Vessels
3. Management Analysts
4. Transportation, Storage, and Distribution Managers
5. First-Line Supervisors of Mechanics, Installers, and Repairers
6. Locomotive Engineers
7. First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors
8. Dispatchers, Excluding Police, Fire, and Ambulance
9. Railroad Conductors and Yardmasters

If an occupation has a high Human Capital Index (>100), it will have higher human capital requirements due to a lower likelihood of automation when compared to other occupations. This pushes up demand for those workers relative to other occupations in the economy that have more opportunities to use automation to do the work. This increased demand can create workforce challenges.

Occupations with low automation rates tend to require more specialized skills, training, or knowledge, meaning they have greater barriers to entry. To fulfill demand, more workforce development may be needed in those occupations.

Management Analysts and **Transportation, Storage, and Distribution Managers** have high Human Capital Index values. These occupations require considerable preparation, typically a bachelor's degree or equivalent work experience. Because the educational and experiential requirements are more costly and time-intensive, the labor pool for these roles is more limited compared to occupations with lower preparation needs.

Cargo and Freight Agents also have a relatively high Human Capital Index value; however, the job only requires some amount of preparation, meaning individuals can qualify with less advanced training. As a result, the potential labor pool for Cargo and Freight Agents is broader than for occupations with higher preparation requirements .

Summary of Workforce Volatility Index Values by Component, Maine Transportation, Warehousing, and Logistics Occupations, 2024-2029

SOC Code	Description	Human Capital Index	Total Workforce Volatility Index
43-5011	Cargo & Freight Agents	109	104
53-5021	Captains, Mates, & Pilots of Water Vessels	103	103
13-1111	Management Analysts	109	102
11-3071	Transportation, Storage, & Distribution Managers	112	101
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	106	100
53-4011	Locomotive Engineers	106	100
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	106	100
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	105	100
53-4031	Railroad Conductors & Yardmasters	102	100
53-3032	Heavy & Tractor-Trailer Truck Drivers	90	99
53-3033	Light Truck Drivers	87	98
49-3011	Aircraft Mechanics & Service Technicians	99	97
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	85	96
43-5071	Shipping, Receiving, & Inventory Clerks	91	96
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	83	95
53-7051	Industrial Truck & Tractor Operators	81	94
53-7064	Packers & Packagers, Hand	77	94

Note: These data reflect employment in each occupation, regardless of the sector in which individuals are employed.

Source: Lightcast, Camoin Associates

Index by Component: Resident Worker Index (Supply Side)

Four target occupations will face workforce volatility due to a lack of resident workers, indicating this will be a key driver of workforce pressures.

If an occupation has a Resident Worker Index above 100, then there are fewer resident workers than there are jobs. This indicates that Maine may have a worker shortage and may be importing workers from other states. Four target occupations have high Resident Worker Index values *and* high Workforce Volatility Index values:

1. **Cargo and Freight Agents**
2. **Captains, Mates, and Pilots of Water Vessels**
3. **Transportation, Storage, and Distribution Managers**
4. **Dispatchers, Excluding Police, Fire, and Ambulance**

The high Workforce Volatility Index values in these occupations may be driven, in part, by the lack of resident workers. This could indicate a need for more local skill development related to these occupations.

Summary of Workforce Volatility Index Values by Component, Maine Transportation, Warehousing, and Logistics Occupations, 2024-2029

SOC Code	Description	2024 Jobs	2024 Resident Workers	Resident Worker Index	Total Workforce Volatility Index
43-5011	Cargo & Freight Agents	244	207	118	104
53-5021	Captains, Mates, & Pilots of Water Vessels	392	359	109	103
13-1111	Management Analysts	3,795	3,882	98	102
11-3071	Transportation, Storage, & Distribution Managers	638	615	104	101
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	2,894	2,993	97	100
53-4011	Locomotive Engineers	114	120	96	100
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	2,473	2,530	98	100
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	801	793	101	100
53-4031	Railroad Conductors & Yardmasters	175	175	100	100
53-3032	Heavy & Tractor-Trailer Truck Drivers	11,497	11,808	97	99
53-3033	Light Truck Drivers	4,455	4,622	96	98
49-3011	Aircraft Mechanics & Service Technicians	494	499	99	97
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	1,764	1,763	100	96
43-5071	Shipping, Receiving, & Inventory Clerks	2,570	2,703	95	96
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	6,491	6,865	95	95
53-7051	Industrial Truck & Tractor Operators	3,030	3,064	99	94
53-7064	Packers & Packagers, Hand	1,650	1,811	91	94

Note: These data reflect employment in each occupation, regardless of the sector in which individuals are employed.
Source: Lightcast, Camoin Associates

Index by Component: Retirement Risk Index (Supply Side)

Over half of the target occupations will feel supply-side workforce pressures due to worker retirements.

This index accounts for the share of workers in an occupation who are aged 55+. If an occupation has a high Retirement Risk Index (>100), then that occupation has a higher share of workers aged 55+ than the average across all occupations in Maine.

While only four occupations—**Cargo and Freight Agents, Captains, Mates, and Pilots of Water Vessels, Management Analysts,** and **Transportation, and Storage, and Distribution Managers**—have high Retirement Risk Index values and high Workforce Volatility Index values, many occupations are projected to see higher levels of retirement in the next five years. If positions cannot be easily refilled, this raises the risk of worker shortages.. The needs of these occupations should be monitored to avoid future worker shortages.

Summary of Workforce Volatility Index Values by Component, Maine Transportation, Warehousing, and Logistics Occupations, 2024-2029

SOC Code	Description	2024 Share of Workers Aged 55+	Retirement Risk Index	Total Workforce Volatility Index
43-5011	Cargo & Freight Agents	32%	104	104
53-5021	Captains, Mates, & Pilots of Water Vessels	32%	104	103
13-1111	Management Analysts	41%	113	102
11-3071	Transportation, Storage, & Distribution Managers	29%	101	101
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	35%	107	100
53-4011	Locomotive Engineers	34%	106	100
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	30%	102	100
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	27%	99	100
53-4031	Railroad Conductors & Yardmasters	28%	100	100
53-3032	Heavy & Tractor-Trailer Truck Drivers	38%	110	99
53-3033	Light Truck Drivers	36%	108	98
49-3011	Aircraft Mechanics & Service Technicians	15%	87	97
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	29%	101	96
43-5071	Shipping, Receiving, & Inventory Clerks	26%	98	96
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	21%	93	95
53-7051	Industrial Truck & Tractor Operators	23%	95	94
53-7064	Packers & Packagers, Hand	24%	96	94

Note: These data reflect employment in each occupation, regardless of the sector in which individuals are employed.
Source: Lightcast, Camoin Associates

Index by Component: Replacement Rate Index (Supply Side)

Replacement rate is not expected to be a driver of high workforce volatility among the target occupations.

The replacement rate is the rate of workers leaving an occupation permanently, for example, due to a career change. These workers will need to be replaced by new hires. If an occupation has a Replacement Rate Index above 100, then its annual replacement rate is greater than the average across all occupations in Maine. These occupations will face tighter workforce needs than average.

Only two occupations have high Replacement Rate Index values; however, these occupations do not have high Workforce Volatility Index values:

1. **Laborers and Freight, Stock, and Material Movers, Hand**
2. **Packers and Packagers, Hand**

Summary of Workforce Volatility Index Values by Component, Maine Transportation, Warehousing, and Logistics Occupations, 2024-2029

SOC Code	Description	Annual Replacement Rate	Replacement Rate Index	Total Workforce Volatility Index
43-5011	Cargo & Freight Agents	9%	98	104
53-5021	Captains, Mates, & Pilots of Water Vessels	11%	100	103
13-1111	Management Analysts	8%	97	102
11-3071	Transportation, Storage, & Distribution Managers	8%	97	101
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	8%	97	100
53-4011	Locomotive Engineers	8%	97	100
53-1047	First-Line Supervisors of Transportation & Material Moving Workers, Except Aircraft Cargo Handling Supervisors	10%	99	100
43-5032	Dispatchers, Excluding Police, Fire, & Ambulance	9%	98	100
53-4031	Railroad Conductors & Yardmasters	9%	98	100
53-3032	Heavy & Tractor-Trailer Truck Drivers	10%	99	99
53-3033	Light Truck Drivers	10%	99	98
49-3011	Aircraft Mechanics & Service Technicians	7%	97	97
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	8%	97	96
43-5071	Shipping, Receiving, & Inventory Clerks	10%	99	96
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	13%	102	95
53-7051	Industrial Truck & Tractor Operators	10%	99	94
53-7064	Packers & Packagers, Hand	14%	103	94

Note: These data reflect employment in each occupation, regardless of the sector in which individuals are employed.
Source: Lightcast, Camoin Associates

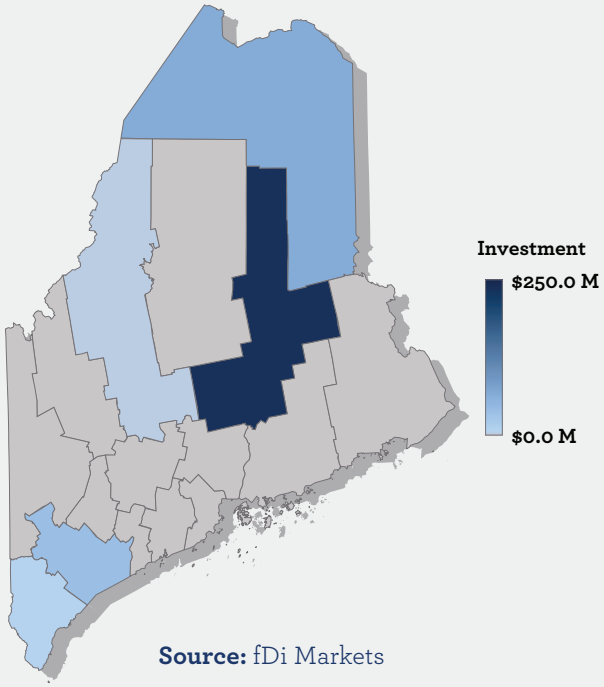
Recent Investments

The Index Explained

This section provides a detailed look at recent capital investments in Maine's TWL sector. These investments introduce new facilities, technologies, and global firms to the state, **expanding economic opportunities but also intensifying competition for workers.** As new employers arrive and drive up demand for labor, the availability of a stable and skilled workforce becomes critical. To sustain and attract future investment, Maine must continue to align workforce development efforts with industry needs .

Since 2019, Maine has seen a series of targeted capital investments in its TWL sector. Collectively, announced investments total $359.6 million, signaling both renewed confidence in the TWL sector and opportunities for regional economic growth. These projects have been concentrated in five counties where large-scale logistics and energy-related developments are taking shape. While not directly part of the TWL sector, monitoring energy expansion projects is important because they often require similar skills and occupations as the transportation, warehousing, and logistics sector, creating competition for labor. These projects also expand infrastructure and supply chain capacity, directly influencing the region's logistics landscape.

Foreign and Domestics Investment Related to TWL in Maine, Jan. 2019- Aug. 2025



Source: fDi Markets

Where Investments Are Coming From

Source Location	Capital Investment
France	**$16.1 M**
Bretagne	$16.1M
Switzerland	**$5.0 M**
Switzerland	$5.0 M
United States	**$276.1 M**
Massachusetts	$236.3 M
Pennsylvania	$15.0 M
Texas	$20.4 M
Washington	$4.4 M
Total	**$297.2 M**

Source: fDi Markets

The largest single investment occurred in Penobscot County, where Form Energy announced a $236.3 million project in Lincoln, strengthening Maine's role in renewable energy storage and distribution. In Cumberland County, more than $41.5 million in projects, including the proposed Gorham Amazon project, demonstrate the region's attractiveness for transportation, warehousing, and international marine logistics. Smaller but still important projects include $5.6 million in Somerset County and $9.4 million in York County, both tied to expansions by A. Duie Pyle, a Pennsylvania-based freight and logistics provider.

From an origin perspective, the majority of investments are coming from the US ($276.1 million), led by Massachusetts-based Form Energy's project in Penobscot County. Other US sources include Texas ($20.4 million), Pennsylvania ($15 million), and Washington ($4.4 million).

International investment is also notable, with France contributing $16.1 million through TEMO's expansion in Portland and Switzerland contributing $5 million via BWA Yachting's new Portland office.

While only five counties have reported measurable capital inflows to date, the scale and diversity of these projects highlight how Maine's TWL sector is beginning to attract both domestic and international attention, laying the groundwork for future growth.

Investment Deals Details, January 2019-August 2024[4]

Amazon | Gorham, ME (August 2025)

Amazon reached an agreement with the town of Gorham to purchase **94 acres of industrial land for $4 million** as the potential site of a new facility. While the project is still subject to multiple local, state, and federal approvals, the land deal marks a significant first step in Amazon's expansion in southern Maine and represents a major economic development opportunity for the community.[5]

Amazon | Caribou, ME (June 2025)

In Aroostook County, Amazon has supported the development of a new logistics facility in Caribou, expanding e-commerce and distribution capacity in northern Maine. Public records indicate approximately **$4.4 million in renovation costs** associated with the project, though total investment and employment figures have not been publicly disclosed. The facility extends Amazon's logistics footprint into a previously underserved region of the state and reflects growing demand for distribution infrastructure in northern Maine.

BWA Yachting | Portland, ME (June 2025)

Switzerland-based BWA Yachting established a new US office in Portland focused on sales and support for marine transportation and yacht services. The **$5 million investment** is expected to create **53 jobs** and strengthen Maine's international profile in marine logistics and luxury vessel services.

TEMO | Portland, ME (October 2024)

French electric boat motor manufacturer TEMO is expanding into the US market with a new operation in Portland. The project includes a **$16.1 million investment** and the creation of **126 jobs**. Focusing on sustainable, non-automotive transportation and electric propulsion systems, TEMO's entry strengthens Maine's Marine Technology sector.

Form Energy | Lincoln, ME (August 2024)

Form Energy, based in Somerville, MA, announced a major expansion into Lincoln, focused on renewable energy storage. The facility represents an estimated **$236.3 million investment** and will create **29 jobs**. Backed by significant federal funding, the project will support grid-scale energy storage and strengthen Maine's role in the clean energy economy.

A. Duie Pyle | Pittsfield, ME (January 2024)

A. Duie Pyle, a Pennsylvania-based freight and logistics company, expanded its Northeast footprint with a new facility in Pittsfield. The $5.6 million investment will support freight and distribution services and create **12 jobs**. The project enhances regional logistics infrastructure and provides Maine businesses with improved access to transportation services.

SRS Distribution | Westbrook, ME (May 2023)

Texas-based SRS Distribution, a major roofing and building materials supplier, opened a new location in Westbrook. The project brought an estimated **$20.4 million investment** and **29 jobs**, expanding logistics and supply chain capacity for construction materials in southern Maine.

A. Duie Pyle | Saco, ME (July 2019)

A. Duie Pyle opened a logistics center in Saco as part of its Northeast expansion strategy. The facility represented a **$9.4 million investment** and created **20 jobs**, offering integrated freight and warehousing services to support the state's growing distribution needs.

[4] Investment expenditures and job estimates were provided by fDi Markets with additional research from MaineBiz and the Bangor Daily News.

[5] Capital expenditure and job estimation data are not yet available for this deal.

Occupational Profiles and Entry Point Mapping

As part of this study, occupational profiles with entry point mapping were developed to illustrate how individuals can access and advance within specific TWL occupations. Because several occupations in this sector can be entered directly with minimal training or credentialing, mapping was limited to those occupations that require higher levels of preparedness, significant additional work hours, or specialized certification to secure employment and progress in the field.

As part of the research project, the Camoin Associates Team also conducted a series of interviews with individuals at educational institutions and TWL industry partners to better understand hiring challenges, training needs, and barriers to entry. Insights from these conversations informed the occupational profiles and entry point maps by grounding them in real-world workforce dynamics and aligning them with employer and educator perspectives.[6]

The occupations selected for entry point mapping reflect positions where structured pathways, through education, training, licensing, or extended on-the-job experience, are essential for career entry and advancement.

What We Heard

Interviews with educational providers revealed that employers frequently contact program leaders at institutions directly in search of new candidates, particularly within truck driving and diesel mechanic programs.

What We Heard

Interviews with TWL service providers emphasized the strong demand for highly skilled mechanics capable of repairing not only engines but also refrigerated trucks and other specialized truck-related components.

These occupations include:

Supervisory Roles

- 49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers
- 53-1047 First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors

Technical Trades

- 49-3011 Aircraft Mechanics and Service Technicians
- 49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

Licensed or Certified Operator Positions

- 53-3032 Heavy and Tractor-Trailer Truck Drivers
- 53-3033 Light Truck Drivers
- 53-7051 Industrial Truck and Tractor Operators
- 53-4011 Locomotive Engineers
- 53-4031 Railroad Conductors and Yardmasters

Higher-Level Management and Analytical Occupations

- 11-3071 Transportation, Storage, and Distribution Managers
- 13-1111 Management Analysts

[6] *Based on these criteria, profiles were not completed for 43-5011 Cargo and Freight Agents, 43-5032 Dispatchers, Excluding Police, Fire, and Ambulance, 43-5071 Shipping, Receiving, and Inventory Clerks, 53-7064 Packers and Packagers, Hand, or 53-7062 Laborers and Freight, Stock, and Material Movers, Hand.*

OCCUPATION PROFILE

TWL First-Line Supervisors

Included Occupations

- 49-1011 First-Line Supervisors of Mechanics, Installers, and Repairers
- 53-1047 First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors

Directly supervise and coordinate the activities of mechanics, installers, and repairers. May also advise customers on recommended services. Excludes team or work leaders.

Top Job Titles

Electrical and Instrumentation Supervisor | Facilities Maintenance Supervisor | Maintenance Coordinator | Maintenance Foreman | Maintenance Planner | Service Manager | Cargo Manager | Warehouse Supervisor

Work Activities

- Monitoring processes, materials, or surroundings
- Evaluating information to determine compliance with standards
- Inspecting equipment, structures, or materials
- Operating vehicles, mechanized devices, or equipment
- Scheduling work and activities
- Working with computers

Work Environment

- Telephone conversations
- Frequent contact with others
- Importance of being exact or accurate
- Emphasis on ensuring the health and safety of other workers
- Typical work week exceeds 40 hours
- Wear common PPE or safety equipment

Source: O*NET

Knowledge

- Management
- Mechanical
- Customer and personal service
- Personnel and human resources
- Mathematics
- Transportation

Skills

- Management of personnel resources
- Judgment and decision making
- Operations monitoring
- Troubleshooting
- Negotiation
- Operation and control

Sample Opportunities in Maine

- **Electrical Construction Superintendents**
  Johnson Service Group, Madawaska, ME
- **Transportation Supervisors**
  State of Maine, Edgecomb, ME
- **Maintenance Superintendents**
  N.D Paper, Rumford, ME

Source: Lightcast

OCCUPATION PROFILE

TWL First-Line Supervisors cont.

Typical Entry Points

A high school diploma is the minimum educational requirement associated with these occupations; however, it is common for employers to request an associate's degree or the completion of some college. Previous work experience may supersede educational requirements in these occupations.

Beyond formal education, prior hands-on experience as a mechanic, material mover, installer, or repairer is often preferred since the role requires both technical knowledge and supervisory ability. As a result, it is rare for someone to step directly into this position without a degree or relevant industry experience.

Typical Training Programs

→ Heating, Air Conditioning, Ventilation, and Refrigeration Maintenance Technician

Offered at Central Maine Community College | Eastern Maine Community College | Kennebec Valley Community College | Northeast Technical Institute | Northern Maine Community College | Southern Maine Community College | Washington County Community College

→ Electrician

Offered at Eastern Maine Community College | Kennebec Valley Community College | Northern Maine Community College | Southern Maine Community College | Washington County Community College

→ Automobile/Automotive Mechanics Technician

Offered at Central Maine Community College | Eastern Maine Community College | Northern Maine Community College | Southern Maine Community College | Washington County Community College

→ Sustainability Studies

Offered at Unity Environmental University (bachelor's) | University of New England (bachelor's) | University of Southern Maine (minor)

→ Line worker

Program offered at Kennebec Valley Community College

→ Vehicle Maintenance and Repair Technician

Offered at Southern Maine Community College

→ Construction/Heavy Equipment/Earthmoving Equipment Operation

Offered at Southern Maine Community College | Washington County Community College

→ Autobody/Collision and Repair Technician

Offered at Northern Maine Community College

OCCUPATION PROFILE

Mechanics and Diesel Engine Specialists

Included Occupations

- 49-3011 Aircraft Mechanics and Service Technicians
- 49-3031 Bus and Truck Mechanics and Diesel Engine Specialists

Diagnose, adjust, repair, or overhaul complex engines and assemblies on buses, trucks, diesel systems, and aircraft engines, as well as related hydraulic and pneumatic components.

Top Job Titles

Aircraft Service Technician | Aviation Mechanic | Helicopter Mechanic | Diesel Mechanic | Diesel Technician | Fleet Mechanic | General Repair Mechanic | Service Technician | Truck Mechanic

Work Activities

- Repairing and maintaining mechanical equipment
- Evaluating information to determine compliance with standards
- Inspecting equipment, structures, or materials
- Operating vehicles, mechanized devices, or equipment
- Working with computers
- Analyzing data or information

Work Environment

- Emphasis on ensuring the health and safety of other workers
- Exposure to contaminants (such as pollutants, gases, dust, or odors)
- Decisions impact co-workers or company results
- Exposure to sounds and noise levels that are distracting or uncomfortable
- Indoors, not environmentally controlled
- Spend time using your hands to handle, control, or feel objects, tools, or controls

Source: O*NET

Knowledge

- Mechanical
- Computers and electronics
- Public safety and security
- Mathematics
- Physics
- Transportation

Skills

- Repairing
- Equipment maintenance
- Quality control analysis
- Operations monitoring
- Troubleshooting
- Complex problem solving

Sample Opportunities in Maine

- **Aircraft Mechanics**
  Bangor International Airport, Bangor, ME
- **Diesel Technicians**
  US Foods, York, ME (June-July 2025)
- **Airframe and Powerplant Technicians**
  Modern Aviation, Trenton, ME (June-July 2025)
- **Diesel Mechanics**
  Ryder, Augusta, ME (June-July 2025)

Source: Lightcast

OCCUPATION PROFILE

Mechanics and Diesel Engine Specialists cont.

Typical Entry Points

Entry into these occupations typically requires an associate's degree, with some Maine employers requesting a bachelor's degree in primarily aviation-related occupations. Other employers, particularly those looking to hire diesel mechanics, may accept a relevant certificate of completion in place of an associate's degree.

Employers for these occupations often place less focus on long-term prior experience and place more value on completed educational requirements.

Typical Training Programs

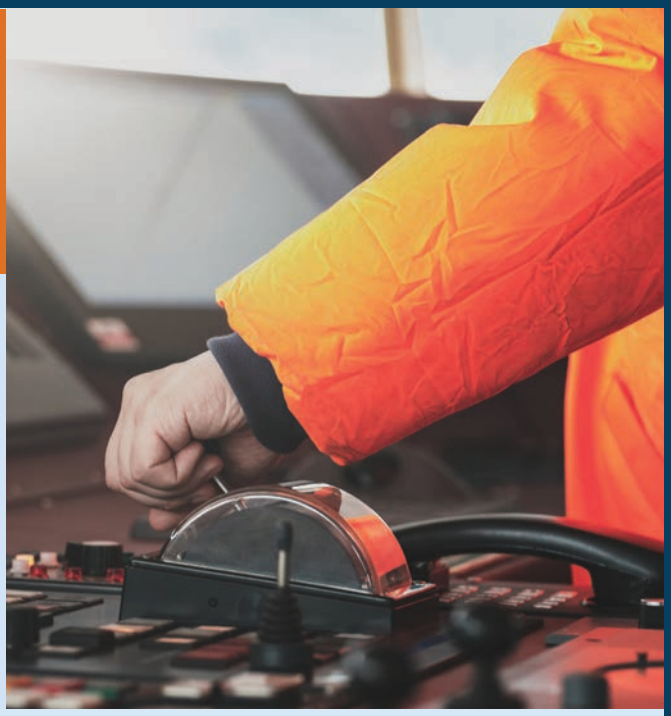
→ **Heavy Equipment Maintenance Technician**
Offered at Eastern Maine Community College | Washington County Community College

→ **Diesel Mechanics Technician**
Offered at Northern Maine Community College | Washington County Community College

→ **Aviation Maintenance Technician**
Offered at University of Maine, Augusta

OCCUPATION PROFILE

Captains, Mates, and Pilots of Water Vessels



Included Occupations

- 53-5021 Captains, Mates, and Pilots of Water Vessels

Command or supervise operations of ships and water vessels, such as tugboats and ferryboats.
Required to hold a license issued by the US Coast Guard.

Top Job Titles

Boat Captain | Captain | Ferry Boat Captain | First Mate | Harbor Pilot | Mate | River Pilot | Ship Pilot | Tugboat Captain | Vessel Master

Work Activities

- Operating vehicles, mechanized devices, or equipment
- Inspecting equipment, structures, or materials
- Controlling machines and processes
- Monitoring processes, materials, or surroundings
- Evaluating information to determine compliance with standards
- Repairing and maintaining mechanical equipment

Work Environment

- Typical work week exceeds 40 hours
- Emphasis on ensuring the health and safety of other workers
- Exposed to sounds and noise levels that are distracting or uncomfortable
- Outdoors, exposed to all weather conditions
- High consequences of error
- Spend time using your hands to handle, control, or feel objects, tools, or controls

Source: O*NET

Knowledge

- Transportation
- Public safety and security
- Mechanical
- Law and government
- Geography
- Customer and personal service

Skills

- Operation and control
- Monitoring
- Speaking
- Operations monitoring
- Complex problem solving
- Management of personnel resources

Sample Opportunities in Maine

- **Boat Captains**
  New England EcoAdventures, Portland, ME
- **Boat Captains**
  Beal and Bunker, Mount Desert, ME
- **Boat Captains**
  Waters Aero Marine, Rockland, ME

Source: Lightcast

Captains, Mates, and Pilots of Water Vessels cont.

Typical Entry Points

Entry into this occupation requires a US Coast Guard license, obtained by completing formal training programs and passing written and practical examinations. While a high school diploma or equivalent is the minimum educational requirement, many employers prefer candidates who have completed postsecondary coursework in marine transportation or a related field.

License requirements vary by vessel size and route, ranging from the OUPV "six-pack" license for small passenger vessels to Mate and Master licenses required for larger commercial or oceangoing ships.

Advancement is closely tied to accumulated sea service hours, with employers placing significant emphasis on documented maritime experience in addition to formal credentials.

Typical Career Pathways

The occupation of Captains, Mates, and Pilots of Water Vessels offers two primary career pathways that lead to the same destination—commanding or navigating commercial vessels.

One pathway is the experience-based route, where individuals start in entry-level maritime positions such as deckhand or ordinary seaman, progressively gaining sea service time and upgrading their US Coast Guard credentials.

The other is the education-based route, where students enroll in a maritime academy and graduate with a bachelor's degree and a US Coast Guard officer's license, entering the industry directly as licensed officers.

→ Basic Entry Requirements

- High school diploma or GED (minimum)
- US Citizenship or permanent residency
- Meet US Coast Guard (USCG) medical, physical, and drug testing standards
- Obtain a Transportation Worker Identification Credential (TWIC)

→ Career Pathways (Two main routes into the occupation)

1. Experience-Based Route

- Work your way up from deckhand, oiler, or ordinary seaman.
- Accumulate **documented sea service days** (e.g., 360 days for OUPV license, 720+ for Master licenses).
- Progressively upgrade Merchant Mariner Credential (MMC).

2. Experience-Based Route

- Attend a **maritime academy** (e.g., Maine Maritime Academy, Massachusetts Maritime Academy).
- Complete a degree program in marine transportation or engineering.
- Graduate with both a bachelor's degree and a USCG officer license (Third Mate or equivalent).

→ Licensing and Credentials

- **Merchant Mariner Credential (MMC)** issued by USCG
- Common endorsements:
  - **OUPV (Six-Pack)** → Small passenger vessels, up to six paying passengers
  - **Master License (25, 50, 100 GRT)** → Larger vessels, ferries, and charters
- **Third Mate/Second Mate/Chief Mate/Master (Unlimited Tonnage)** → Ocean-going commercial ships
- **Radar Observer, STCW (Standards of Training, Certification, and Watchkeeping)**, and towing/sailing endorsements, as needed

→ Career Ladder

- **Entry-Level:** Deckhand/Ordinary Seaman
- **Mid-Level:** Able Seaman → Mate (Third Mate, Second Mate, Chief Mate)
- **Advanced:** Pilot (specialized local navigation), Master/Captain (command of vessel)

→ Key Training Providers

- **Maritime Academies:** Maine Maritime, Mass Maritime, SUNY Maritime, etc.
- **USCG-Approved Schools:** Atlantic Captain's Academy, Downeast Maritime (Maine), New England Maritime
- **Union Training Centers:** Seafarers International Union (SIU), Masters, Mates & Pilots (MM&P)

OCCUPATION PROFILE

Transportation, Storage, and Distribution Managers

Included Occupations

- 11-3071 Transportation, Storage, and Distribution Managers

Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. Includes logistics managers.

Top Job Titles

Aircraft Service Technician | Aviation Mechanic | Helicopter Mechanic | Diesel Mechanic | Diesel Technician | Fleet Mechanic | General Repair Mechanic | Service Technician | Truck Mechanic

Work Activities

- Working with computers
- Guiding, directing, and motivating subordinates
- Evaluating information to determine compliance with standards
- Scheduling work and activities
- Resolving conflicts and negotiating with others
- Analyzing data or information

Work Environment

- Face-to-face discussions with individuals and within teams
- Frequent contact with others
- Typical work week of approximately 40 hours
- Work with or contribute to a work group or team
- Time pressure
- Indoors, environmentally controlled

Source: O*NET

Knowledge

- Customer and personal service
- Personnel and human resources
- Public safety and security
- Economics and accounting
- Production and processing
- Law and government

Skills

- Coordination
- Monitoring
- Negotiation
- Systems analysis
- Management of personnel resources
- Social perceptiveness

Sample Opportunities in Maine

- **Integrated Logistics Support Managers**
  R&P Technologies, Bath, ME
- **Directors of Supply Chain**
  JLL, Scarborough, ME
- **Routers**
  Temco Logistics, Portland, ME

Source: Lightcast

OCCUPATION PROFILE

Transportation, Storage, and Distribution Managers cont.

Typical Entry Points

Entry into this occupation typically requires a bachelor's degree, though some employers will accept an associate's degree combined with substantial industry experience.

In certain cases, employers may promote candidates with only a high school diploma if they possess extensive on-the-job experience in logistics, supply chain management, or warehouse operations.

Unlike many technical roles that emphasize formal education, employers in these occupations often place greater weight on proven managerial experience, leadership ability, and familiarity with complex distribution systems.

Typical Training Programs

→ Organizational Leadership

Offered at Husson University | University of Maine | University of Maine at Farmington | University of Maine at Presque Isle | University of Southern Maine

→ Public Administration

Offered at University of Maine at Augusta | University of Maine at Fort Kent | University of Southern Maine

→ Business Administration and Management

Offered at Beal University | Central Maine Community College | Eastern Maine Community College | Husson University | Northern Maine Community College | Saint Joseph's College of Maine | Southern Maine Community College | Thomas College | University of Maine | University of Maine at Augusta | University of Maine at Fort Kent | University of Maine at Presque Isle | University of New England | University of Southern Maine | Washington County Community College | York County Community College | Maine Maritime Academy

→ Aeronautics/Aviation/Aerospace Science and Technology, General

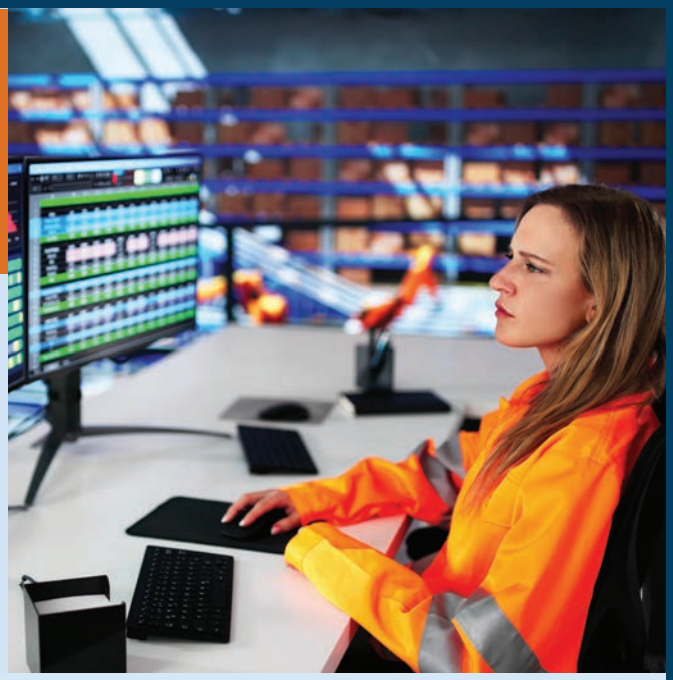
Offered at University of Maine

→ International Business and Logistics

Offered at Maine Maritime Academy

OCCUPATION PROFILE

Management Analysts



Included Occupations

- 13-1111 Management Analysts

Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Includes program analysts and management consultants.

Top Job Titles

Administrative Analyst | Business Analyst | Business Consultant | Employment Programs Analyst | Management Analyst | Management Consultant | Performance Management Analyst | Program Management Analyst

Work Activities

- Analyzing data or information
- Providing consultation and advice to others
- Developing objectives and strategies
- Interpreting the meaning of information for others
- Working with computers
- Updating and using relevant knowledge

Work Environment

- Email
- Telephone conversations
- Indoors, environmentally controlled work area
- Produce written letters and memos
- Importance of being exact or accurate
- Time pressure
- Spend time sitting
- Typical work week of approximately 40 hours

Source: O*NET

Knowledge

- Administration and management
- Customer and personal service
- Mathematics
- Computers and electronics
- Economics and accounting
- Law and government

Skills

- Judgment and decision making
- Speaking
- Writing
- Social perceptiveness
- Systems analysis
- Service orientation

Sample Opportunities in Maine

- **Business Systems Analysts**
  FIS, Lewiston, ME
- **Cloud Business Analysts**
  Smx Corporation Limited, Augusta, ME
- **Business Process Analysts**
  Health First, ME

Source: Lightcast

Management Analysts cont.

Typical Entry Points

Entry into this occupation typically requires a bachelor's degree, most often in business administration, management, or a related field. Some employers prefer candidates who hold a Master's in Business Administration or a similar field.

Other employers, particularly smaller firms or those focused on specialized industries, may accept candidates with substantial professional experience in lieu of an advanced degree. Employers for these occupations tend to place greater emphasis on formal education credentials, though demonstrated consulting experience, industry expertise, and professional certifications such as Certified Management Consultant (CMC) can also carry significant weight.

Typical Training Programs

→ Business Administration and Management

Offered at Beal University | Central Maine Community College | Eastern Maine Community College | Husson University | Northern Maine Community College | Saint Joseph's College of Maine | Southern Maine Community College | Thomas College | University of Maine | University of Maine at Augusta | University of Maine at Fort Kent | University of Maine at Presque Isle | University of New England | University of Southern Maine | Washington County Community College | York County Community College | Unity Environmental University

→ Political Science and Government

Offered at Bates College | Bowdoin College | Colby College | Saint Joseph's College of Maine | University of Maine | University of Maine at Farmington | University of New England | University of Southern Maine

→ Environmental Studies or Environmental Science

Offered at Bates College | Bowdoin College | Colby College | Husson University | Unity Environmental University | University of Maine | University of Maine at Farmington | University of Maine at Presque Isle | University of New England | University of Southern Maine

→ Natural Resources/Conservation

Offered at Colby College | Unity Environmental University

→ Organizational Leadership

Offered at Central Maine Community College | Kennebec Valley Community College| University of Maine

→ Data Analytics, General

Offered at University of New England

OCCUPATION PROFILE

Professional Drivers

Included Occupations

- 53-3032 Heavy and Tractor-Trailer Truck Drivers
- 53-3033 Light Truck Drivers
- 53-7051 Industrial Truck and Tractor Operators

Professional driving occupations involve operating a range of vehicles to transport goods and materials in different settings. This includes driving tractor-trailers or trucks with a capacity of at least 26,001 pounds Gross Vehicle Weight (GVW), often requiring a Commercial Driver's License (CDL) and, in some cases, unloading cargo.

It also includes operating light trucks and vans under 26,001 pounds GVW to pick up and deliver merchandise or packages, with drivers frequently responsible for loading and unloading.

In addition, professional drivers may operate industrial trucks or tractors within warehouses, factories, storage yards, or construction sites to move materials and support logistics operations.

Together, these occupations form the core of rail operations, balancing coordination, logistics, and train movement.

Top Job Titles

Bulk Delivery Driver | Package Delivery Driver | Route Driver | Warehouse Driver | Forklift Operator | Lift Truck Operator | Commercial Driver's License (CDL) Driver | Line Haul Driver | Over the Road (OTR) Driver | Semi-Truck Driver

Work Activities

- Communicating with supervisors, peers, or subordinates
- Documenting/recording information
- Evaluating information to determine compliance with standards
- Inspecting equipment, structures, or materials
- Performing general physical activities
- Repairing and maintaining mechanical equipment

Work Environment

- High consequence of error
- Typical work week exceeds 40 hours
- Importance of being exact or accurate
- In an enclosed vehicle or operate enclosed equipment
- Outdoors, exposed to all weather conditions
- Spend time using your hands to handle, control, or feel objects, tools, or controls

Source: O*NET

Professional Drivers cont.

Knowledge

- Administration and management
- Computers and electronics
- Mechanical
- Production and processing
- Public safety and security
- Transportation

Skills

- Equipment maintenance
- Judgment and decision making
- Operation and control
- Operations monitoring
- Time management
- Troubleshooting

Sample Opportunities in Maine

- **Drivers** | Waldo Community Action Partners, Bath, ME (June-July 2025)
- **CDL-A Truck Drivers** | FirstFleet, South Portland, ME (June-July 2025)
- **CDL-A Truck Drivers** | UGI, Lewiston, ME (June-July 2025)

Source: Lightcast

Typical Entry Points

Entry into these occupations typically requires a high school diploma or equivalent, with Heavy and Tractor-Trailer Truck Drivers also required to hold a Commercial Driver's License (CDL).

Some employers, particularly for light truck delivery roles, may accept candidates without formal postsecondary training if they have a clean driving record and meet basic safety standards.

Employers hiring for industrial truck and tractor operator positions often prefer candidates with industry-recognized safety or equipment operation certifications, though on-the-job training is also common.

Across these occupations, employers tend to emphasize demonstrated driving ability, safety records, and reliability.

Typical Training Programs

- **Commercial Driver's License**
  Offered at Northern Maine Community College | Northeast Technical Institute
- **Construction/Heavy Equipment/Earthmoving Equipment Operation**
  Offered at Southern Maine Community College | Washington County Community College

OCCUPATION PROFILE

Railroad Operations

Included Occupations

- 53-4011 Locomotive Engineers
- 53-4031 Railroad Conductors and Yardmasters

Conductors and yardmasters oversee train schedules, switching orders, and crew activities, ensuring the safe and efficient makeup, breakup, and routing of trains within rail yards, industrial plants, and along passenger or freight routes.

Locomotive engineers drive electric, diesel-electric, steam, or gas-turbine-electric locomotives to transport passengers or freight, interpreting train orders, signals, and railroad regulations to maintain safety and on-time performance.

Together, these occupations form the core of rail operations, balancing coordination, logistics, and train movement.

Top Job Titles

Conductor | Freight Conductor | Railroad Conductor | Train Master | Trainman | Yardmaster | Locomotive Engineer | Railroad Engineer | Through Freight Engineer | Train Engineer | Train-master

Work Activities

- Communicate with others to coordinate vehicle movement
- Inspect locomotives or other railroad equipment
- Prepare accident or incident reports
- Monitor equipment gauges or displays to ensure proper operation
- Monitor loading processes to ensure they are performed properly
- Record operational or production data

Work Environment

- In an enclosed vehicle or operate enclosed equipment
- Exposed to hazardous equipment
- Exposed to sounds and noise levels that are distracting or uncomfortable
- Outdoors, exposed to all weather conditions
- Work with or contribute to a work group or team
- Wear common PPE or safety equipment

Source: O*NET

Knowledge

- Transportation
- Mechanical
- Public safety and security
- Customer and personal
- Education and training
- Law and government

Skills

- Complex problem solving
- Critical thinking
- Judgment and decision making
- Monitoring
- Operation and control
- Time management

Sample Opportunities in Maine

- **Freight Conductors**
  CSX, Portland, ME
- **Train Conductors**
  Desert of Maine, Freeport, ME

Source: Lightcast

Railroad Operations cont.

Typical Entry Points

Entry into these occupations typically requires a high school diploma or equivalent, with candidates completing formal employer- or union-sponsored training programs approved by the Federal Railroad Administration (FRA).

Locomotive Engineers must also be certified through the FRA, a process that involves both classroom instruction and on-the-job training.

Some employers may prefer candidates with postsecondary coursework in transportation, logistics, or mechanical systems, but formal degrees are not generally required.

Employers for these occupations often emphasize rigorous safety training, regulatory compliance, and accumulated rail yard or train crew experience more than traditional educational credentials.

Career Pathway

Becoming a train operator, particularly a Locomotive Engineer, requires advanced training and certifications; however, this training is typically employer-sponsored. As a result, the entry point map for train operators looks different from that of the other occupations.

→ Typical Career Pathway

- **Entry-Level Roles:**
  - Most operators begin in support or entry-level railroad jobs such as Brakeman, Switchman, or Conductor.
  - Hiring is through railroads directly (Class I, regional, or short-line carriers).
- **Progression to Engineer:**
  - After gaining conductor experience (often 1–3 years), workers may be promoted to Locomotive Engineer.
  - Railroads provide engineer training in-house and sponsor FRA certification.

→ Key Requirements

- **Baseline Qualifications:**
  - High school diploma or GED
  - Age 21+ for FRA certification
  - Strong safety record and ability to pass background checks, drug tests, and medical exams
- **FRA Certification:**
  - Written knowledge test
  - Skills performance test (on-the-job)
  - Recertification every three years

→ Training and Education Providers

- **Railroad-Provided Training:**
  - Amtrak, CSX, Canadian Pacific, BNSF, etc. run their own training academies..
- **Railroad Worker Unions:**
  - SMART-TD (Sheet Metal, Air, Rail, Transportation Division)
  - Brotherhood of Locomotive Engineers and Trainmen (BLET)
- **Entry Barriers:**
  - Limited direct “open enrollment.” Most training is employer-sponsored.
  - Highly regulated. FRA certification is tied to a specific employer and territory.
  - Physically demanding work, irregular hours, and seniority-based scheduling.

Appendix A: Data Sources

Lightcast (formerly Emsi Burning Glass) is a global leader in labor market analytics, offering a data platform that gives a comprehensive, nuanced, and up-to-date picture of labor markets at all scales, from national to local. Key components of the platform include traditional labor market information, job postings analytics, talent profile data, compensation data, and skills analytics. Lightcast integrates government data with information from online job postings, talent profiles, and resumes to produce timely intelligence on the state of the labor market. Job and compensation data is available by industry, occupation, educational program, and skill type. Click to learn more.

IBISWorld is a leading provider of expert industry research and analysis for broad sectors and niche industries across the economy. Thoroughly researched industry reports from IBISWorld leverage economic, demographic, and market data into forward-looking insight, providing detailed data and narrative on current and historic trends, as well as future outlook and projections. Topics covered include products and services, major markets, upstream and downstream supply chain industries, performance drivers, factors for competitiveness, operating conditions, major players, and key statistics on industry performance. Reports are available by industry at the global, national, and state levels. Click to learn more.

fDi Markets is the most comprehensive online database of cross-border greenfield investments available, covering all countries and sectors worldwide. The fDi Markets database tracks capital expenditures and jobs at the sector and project level for country-to-country foreign direct investment projects as well as domestic state-to-state investment projects. Click to learn more.

OnTheMap is a tool developed through the US Census Longitudinal Employer-Household Dynamics (LEHD) program that helps to visualize Local Employment Dynamics (LED) data about where workers are employed and where they live. It offers visual mapping capabilities for data on age, earnings, industry distributions, race, ethnicity, educational attainment, and sex. Click to learn more.

Integrated Postsecondary Education Data System (IPEDS) is a system of interrelated surveys conducted annually by the US Department of Education's National Center for Education Statistics (NCES). IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs. IPEDS provides basic data needed to describe—and analyze trends in—postsecondary education in the United States, in terms of the numbers of students enrolled, staff employed, dollars expended, and degrees earned. Click to learn more.

About Camoin Associates

As the nation's only full-service economic development and lead generation consulting firm, Camoin Associates empowers communities through human connection backed by robust analytics.

Since 1999, Camoin Associates has helped local and state governments, economic development organizations, nonprofit organizations, and private businesses across the country generate economic results marked by resiliency and prosperity.

To learn more about our experience and projects in all of our service lines, please visit our website at www.camoinassociates.com. You can also find us on Linked In, Facebook, and YouTube.

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