



Hawai'i Transportation Workforce Analysis

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Executive Summary

Hawai'i's Transportation & Warehousing industry employs 32,390 individuals in air transportation, truck transportation, water transportation, transit and ground passenger transportation, scenic and sightseeing transportation, and warehousing and storage, as well as couriers and messengers, other transportation and support activities, and the postal service. The Transportation & Warehousing industry in Hawai'i is valued at \$5.9 billion. Many transportation occupations, such as truck drivers, are also found across a variety of industry sectors in the state. When accounting for this distribution across all industries, Hawai'i's transportation workforce likely exceeds 77,600 jobs, representing 12% of total jobs in the state.

Transportation occupations represent many in-demand and high-growth employment opportunities in Hawai'i. In 2023, Material Moving Workers and Motor Vehicle Operators were among the 20 largest occupations in the state.¹ Material Moving Workers were also among the 20 occupations with the most jobs gained from 2016-2023, along with Supervisors of Transportation & Material Moving Workers.

Overall employment in the transportation & warehousing industry is projected to increase by 3.2% annually from 2020-30. Air transportation accounts for 30% of the state's current transportation industry employment, and is expected to gain the most jobs of any transportation industry sub-sector between 2020 and 2030.

The transportation sector offers competitive wages, particularly in water and air transportation, with median earnings of \$90,140 and \$77,370, respectively. Air transportation occupations also have the highest median hourly earnings of any occupational group in the state, at \$65.22 per hour.²

Each of Hawai'i's transportation sub-sectors has unique workforce needs. In water transportation, there is a high demand for vessel crew, including deck, engine, and steward personnel, as well as engineers and skilled trades workers for ship and boat building and repairs. The air transportation sub-sector has a need for airport operations roles, as well as aviation mechanics and pilots, air traffic controllers, and engineers with specialized knowledge in airfields. Drivers, particularly drivers with a Class A or Class B Commercial Drivers License (CDL), are in very high demand in the ground transportation sub-sector, along with mechanics and engineers, and skilled technicians for rail transit.

Across these transportation sub-sectors, local employers face many shared workforce challenges, including a lack of public awareness of career options, a

¹ Top Occupations in Hawai'i, DBEDT READ (2025)

https://files.hawaii.gov/dbedt/economic/reports/Top20_Occupations_Hawaii_2023.pdf

² Top Occupations in Hawai'i, DBEDT READ (2025)

limited pool of interested and qualified local talent, retention challenges, and upcoming retirements. Additionally, local training capacity for high-demand transportation jobs, such as CDL, aviation mechanics, and vessel crew, is limited due to resource constraints. The cost of education and training also poses a significant barrier to students interested in getting into the field, depending on the role they may be pursuing.

To address these shared challenges, local employers are engaging with local students and the community to improve awareness and perception of careers in their sub-sectors, as well as offering internships to grow their pipeline of local talent. Many employers are partnering with local secondary and post-secondary education partners to expand the availability of training. Employers are also implementing a variety of strategies to retain their current workforce, including creating pathways for advancement and offering support for incumbent workers to upgrade their certifications and licenses.

Developing a qualified local talent pipeline to meet Hawai'i's current and future transportation workforce needs will require the collective action of the private sector, government and education agencies, and community partners to create clear career and educational pathways from secondary to post-secondary and employment. Filling critical resource gaps, by investing in local training expansion and addressing shortages of instructors and examiners in high-need fields, will be paramount to meeting industry needs and ensuring accessibility for local candidates.

Introduction

Hawai'i's transportation sector is essential to the state's economy and daily life. As a geographically isolated island state, Hawai'i relies heavily on its multimodal transportation systems to move people, goods, and services efficiently within and between counties. From air travel and maritime shipping to ground transit and freight, the sector underpins tourism, agriculture, retail, construction, and virtually every other industry in the state.

The interconnectivity of transportation with nearly all facets of Hawai'i's economy makes its workforce a critical component to statewide resilience and prosperity. A well-functioning transportation sector supports not only the mobility of residents and visitors but also ensures the timely delivery of supplies and strengthens regional economic linkages.

Understanding the state's transportation workforce will help identify existing gaps, anticipate future demands, and shape targeted investments in education and training. This workforce analysis offers a foundational step toward equipping Hawai'i's communities and the industry with the talent needed to sustain and enhance this essential sector for years to come.

Project Team

The Hawai'i Transportation Workforce Analysis was funded by the University of Hawai'i System and Chamber of Commerce Hawaii through a grant from the Workforce Development Council. AE Consulting was contracted to manage the data collection, analysis, stakeholder outreach, and reporting.



Hawai'i's Transportation Sector

Hawai'i's transportation sector workforce can be quantified using multiple methods. This analysis utilizes two approaches, based on (1) *industry data* and (2) *occupation data*. These approaches provide different types of insights about Hawai'i's transportation sector and workforce.

Data on the transportation & warehousing industry is beneficial to understand the economic value of the sector and variations in employment across the different transportation sub-sectors in Hawai'i. However, the industry data likely underestimates the state's total transportation employment opportunities, as many transportation occupations, such as truck drivers, are employed across all industries in Hawai'i, not just in the transportation industry. For example, 50% of all Motor Vehicle Operators in the state are employed in the transportation industry, while the other half are distributed across other industries.³

Additionally, the transportation & warehousing industry data includes some occupations that do not require transportation-specific knowledge or skillsets, such as accountants and administrative assistants.

An examination of both industry and occupation data provides a more comprehensive view of Hawai'i's transportation workforce landscape and needs.

Transportation Industry Overview

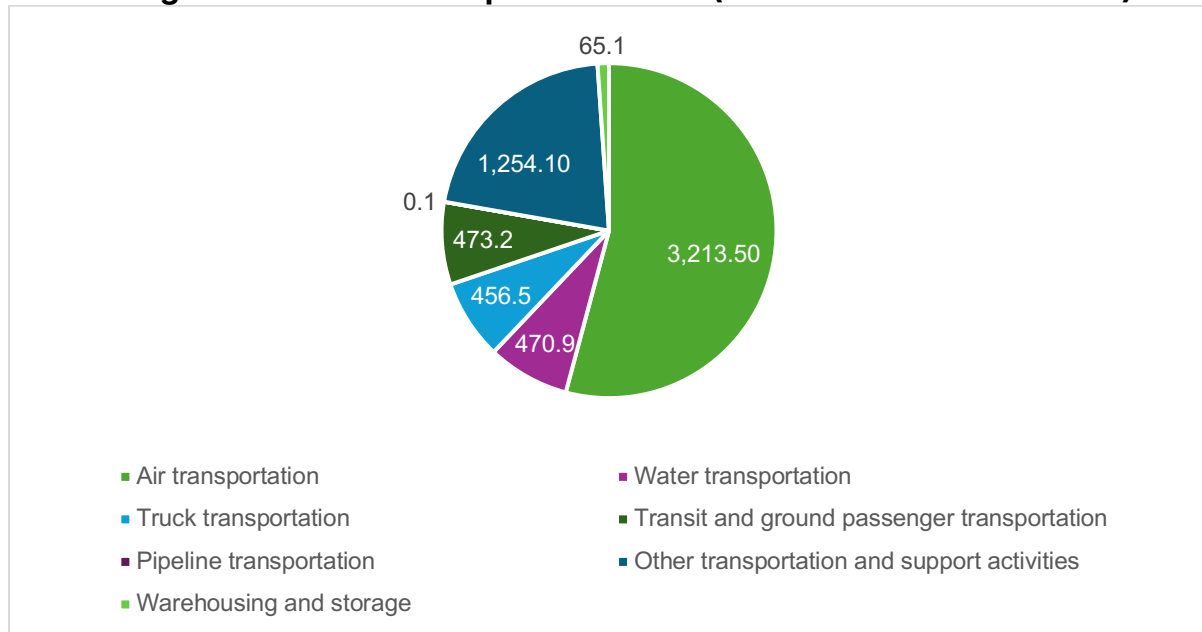
Hawai'i's transportation & warehousing industry accounts for approximately 5% of the state's total GDP at \$5.9 billion as of 2023.⁴ This includes air transportation, truck transportation, pipeline transportation, warehousing and storage, water transportation, transit and ground passenger transportation, and other transportation and support activities. Air transportation represents more than half of Hawai'i's transportation industry GDP, at \$3.2 billion.

³ Top Occupations in Hawai'i, DBEDT READ (2025)

https://files.hawaii.gov/dbedt/economic/reports/Top20_Occupations_Hawaii_2023.pdf

⁴ U.S. Bureau of Economic Analysis, "[SAGDP2 Gross domestic product \(GDP\) by state](#)"¹ (accessed Friday, April 4, 2025).

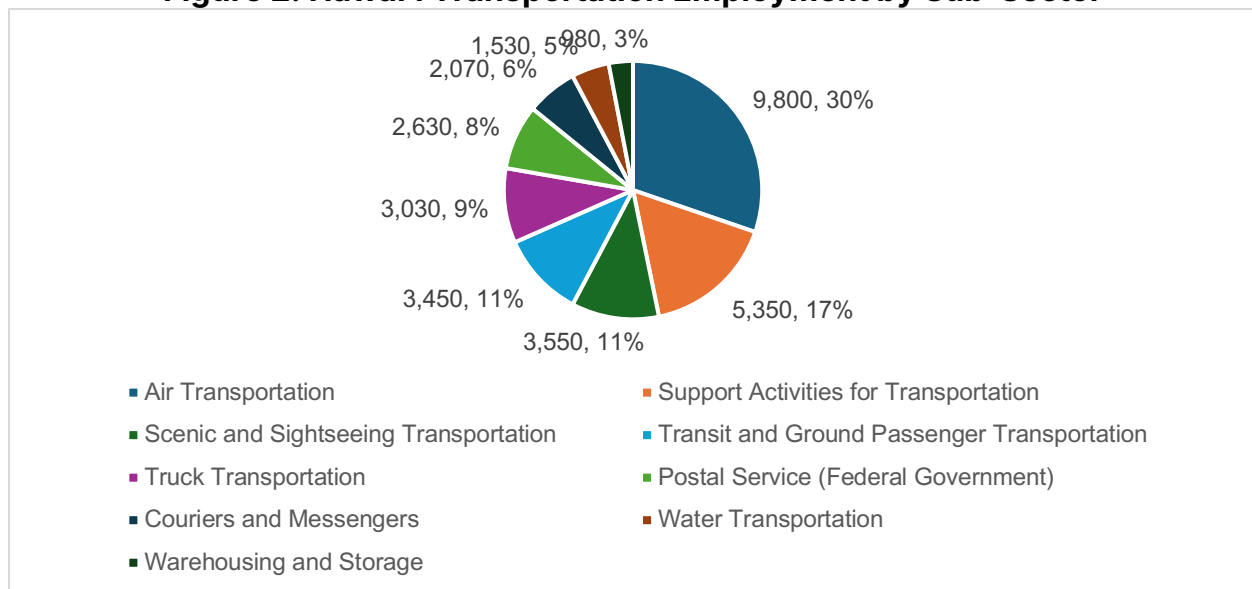
Figure 1: Hawai'i Transportation GDP (millions of current dollars)



Source: U.S. Bureau of Economic Analysis, 2023

Hawai'i's transportation & warehousing industry employed 32,390 workers in the state in 2024.⁵ Air transportation accounts for 30% of the state's transportation industry employment, followed by support activities for transportation (17%), scenic & sightseeing transportation (11%), and transit and ground passenger transportation (11%).

Figure 2: Hawai'i Transportation Employment by Sub-Sector



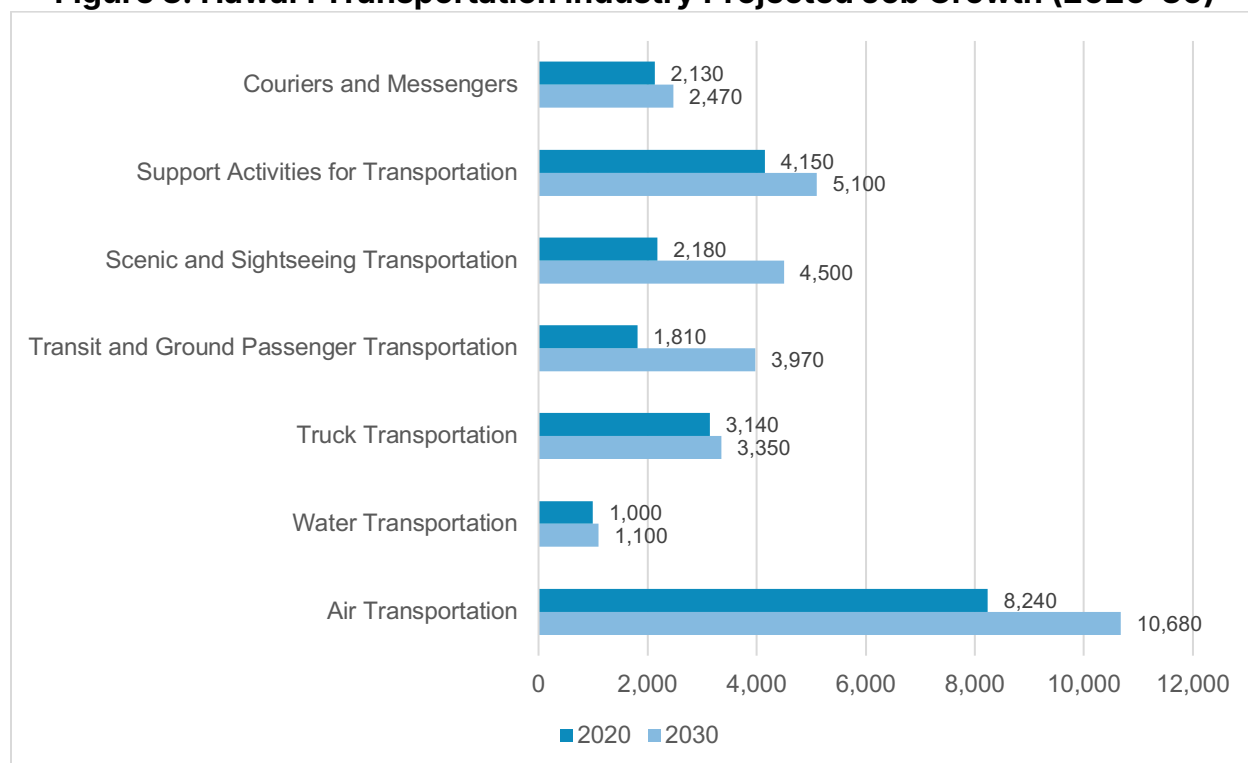
Source: U.S. Bureau of Labor Statistics, 2024

⁵ Occupational Employment & Wage Statistics, U.S. Bureau of Labor Statistics (2024).
https://www.bls.gov/oes/2024/may/oes_research_estimates.htm

Employment in the transportation & warehousing industry is projected to grow by 3.2% annually from 2020-30, at a faster rate than Hawai'i jobs across all industries overall (1.4%).⁶ Federal investments in Hawai'i's transportation infrastructure are expected to create jobs in the coming years.

Between 2020 and 2030, Air Transportation is projected to gain 2,440 jobs, the most jobs of any transportation industry sub-sector in Hawai'i.⁷ Scenic & Sightseeing Transportation and Transit & Ground Passenger Transportation are also projected to see significant job gains, with 2,160 and 2,320 jobs added, respectively.

Figure 3: Hawai'i Transportation Industry Projected Job Growth (2020-30)



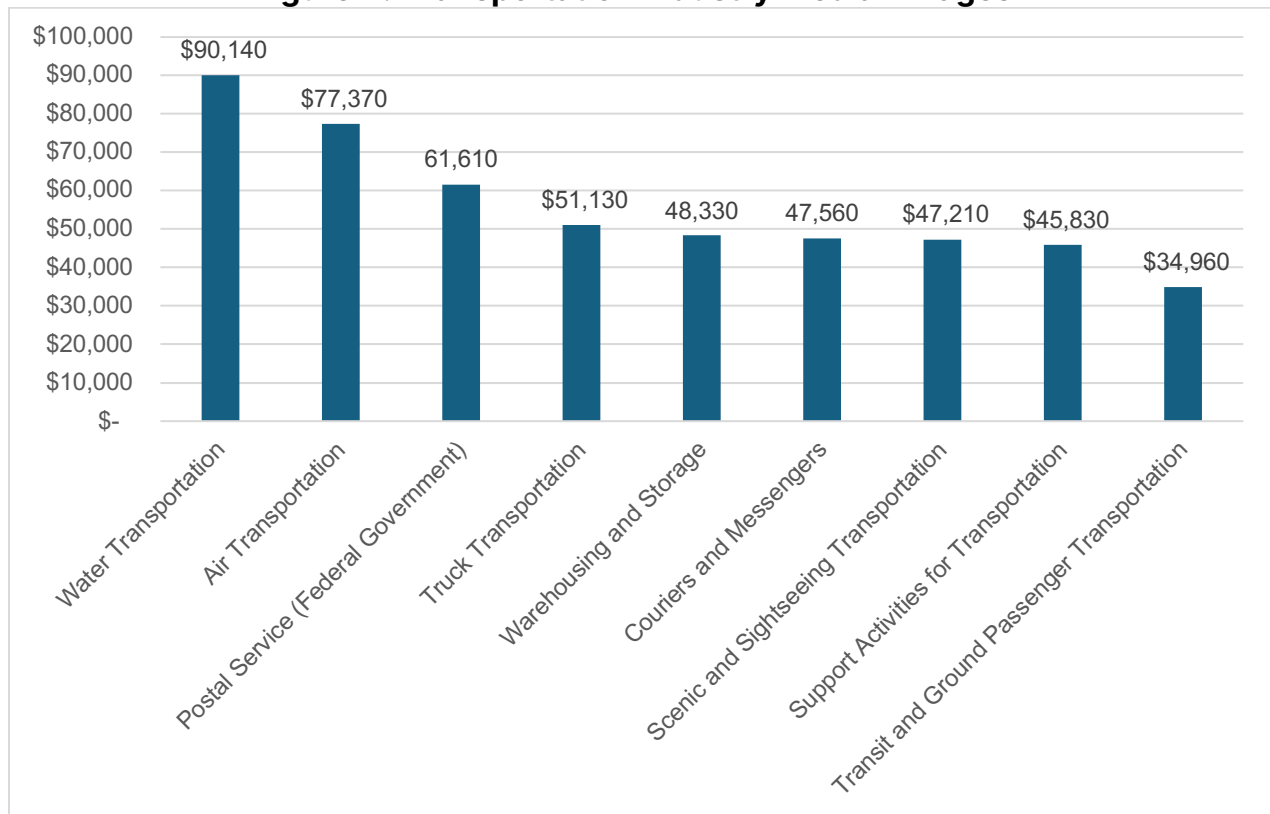
Source: HireNet Hawaii, Long-Term Occupational Projections to 2030

Median wages vary across the transportation industry sub-sectors, with the highest median wages in water transportation (\$90,140) and air transportation (\$77,370) as of 2023. The lowest median wages are seen in transit and ground passenger transportation (\$34,960), which may be due to higher rates of part-time employment in this space.

⁶ Long-Term Industry Projections to 2030, HireNet Hawaii

⁷ Long-Term Occupational Projections to 2030, HireNet Hawaii

Figure 4: Transportation Industry Median Wages



Source: U.S. Bureau of Labor Statistics, 2023

Relevant Transportation Occupations

Occupation data can be utilized to quantify employment in relevant transportation occupations across all industry sectors. For workforce development purposes, this approach is more expansive in terms of capturing the state's total transportation employment opportunities.

For the purposes of this analysis, relevant transportation occupations are defined as occupations that may require transportation-specific knowledge or skillsets. AE Consulting identified 68 occupations that met this criterion, representing 77,600 jobs statewide in 2024. However, 6 of the relevant occupations did not have a median salary of at least the ALICE wage for a single adult in Hawai'i (\$39,384).⁸ These occupations account for 15,340 of the total jobs.⁹

To identify the top transportation job opportunities in the state, relevant occupations that had a median salary of at least the ALICE wage for a single adult in Hawai'i were sorted according to four demand or wage indicators:

⁸ ALICE in Hawai'i: 2024 Facts and Figures, Aloha United Way (2025). https://www.auw.org/wp-content/uploads/2025/01/2024_ALICE-Report_Facts-and-Figures_v-25-01-09.pdf

⁹ Relevant transportation occupations and associated labor market data are listed in Appendix A.

1. Employment Volume Statewide (2024)
2. Projected Job Growth (2020-2030)
3. Average Annual Openings (2020-2030)
4. Median Annual Wage (2024)

Many of the occupations ranked in the top ten occupations for more than one demand or wage indicator, as shown in Table 1 below. For example, Bus Drivers ranked as a top ten occupation for employment volume, annual openings, and projected job growth, and Airline Pilots, Copilots, and Flight Engineers ranked as a top ten occupation for projected job growth and median wage. These occupations represent some of the most in-demand and promising occupations in Hawai'i's transportation sector.

Table 1: Occupations Ranked in the Top Ten for Multiple Demand or Wage Indicators

Occupation	Top 10 Employment Volume	Top 10 Annual Openings	Top 10 Projected Growth	Top 10 Median Wage
Bus Drivers, Transit and Intercity	X	X	X	
Cargo and Freight Agents	X		X	
Driver/Sales Workers		X	X	
Tour and Travel Guides		X	X	
Airline Pilots, Copilots, and Flight Engineers			X	X
First-Line Supervisors of Transportation and Material Moving Workers	X	X		
Electricians	X	X		
First-Line Supervisors of Mechanics, Installers, and Repairers	X	X		
Plumbers	X	X		
Heavy and Tractor-Trailer Truck Drivers	X	X		
Laborers and Freight, Stock and Material Movers	X	X		
Light Truck Drivers	X	X		

The top ten occupations with the highest employment volume statewide are listed in Table 2 below. Laborers and Freight, Stock, and Material Movers is the highest volume occupation by far (9,150 employed), followed by Heavy and Tractor-Trailer Truck Drivers (4,100) and First-Line Supervisors of Mechanics, Installers, and Repairers (3,110).

Table 2: Top Ten Occupations by Employment Volume

SOC	Occupation	Employment Statewide (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)	Total Annual Openings
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	9,150	\$44,050	960	13.60%	1,080
53-3032	Heavy and Tractor-Trailer Truck Drivers	4,100	\$59,320	420	9.50%	540
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	3,110	\$86,460	300	11.00%	280
47-2111	Electricians	3,020	\$83,200	250	7.20%	400
49-3023	Automotive Service Technicians and Mechanics	2,950	\$50,560	20	0.90%	230
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	2,840	\$61,680	420	17.00%	330
53-3033	Light Truck Drivers	2,800	\$44,310	560	11.60%	610
47-2152	Plumbers, Pipefitters, and Steamfitters	2,640	\$78,540	100	3.70%	280
53-3052	Bus Drivers, Transit and Intercity	2,130	\$69,090	580	31.90%	300
43-5011	Cargo and Freight Agents	1,900	\$39,720	300	26.90%	150

Sources: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, 2024
HireNet Hawaii, Long-Term Occupational Projections to 2030

The top occupations with the most annual openings statewide are listed in Table 3 below. Laborers and Freight, Stock, and Material Movers have the most annual openings (1,080), followed by Light Truck Drivers (610), and Heavy and Tractor-Trailer Truck Drivers (540).

Table 3: Top Ten Occupations by Annual Openings

SOC	Occupation	Total Annual Openings	Employment Statewide (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,080	9,150	\$44,050	960	13.60%
53-3033	Light Truck Drivers	610	2,800	\$44,310	560	11.60%

53-3032	Heavy and Tractor-Trailer Truck Drivers	540	4,100	\$59,320	420	9.50%
47-2111	Electricians	400	3,020	\$83,200	250	7.20%
53-3031	Driver/Sales Workers	350	840	\$47,240	860	42.80%
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	330	2,840	\$61,680	420	17.00%
53-3052	Bus Drivers, Transit and Intercity	300	2,130	\$69,090	580	31.90%
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	280	3,110	\$86,460	300	11.00%
47-2152	Plumbers, Pipefitters, and Steamfitters	280	2,640	\$78,540	100	3.70%
39-7010	Tour and Travel Guides	270	1,150	\$44,620	440	35.80%

Sources: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, 2024
HireNet Hawaii, Long-Term Occupational Projections to 2030

Table 4 below shows the top occupations with the highest rate of projected job growth from 2020-30. The occupation with the highest growth rate from 2020-30 is Captains, Mates, and Pilots of Water Vessels, with 52% projected job growth, followed by Dispatchers, Except Police, Fire, and Ambulance at 45%, and Driver/Sales Workers at 43%.

This list of occupations with high projected growth reflects the demand across water, air, and ground transportation.

Table 4: Top Ten Occupations by Projected Growth (2020-2030)

SOC	Occupation	Percent Job Growth (2020-30)	Long-Term Job Growth (2020-30)	Total Annual Openings	Employment Statewide (2024)	Median Wage (2024)
53-5021	Captains, Mates, and Pilots of Water Vessels	52.10%	230	80	530	\$75,980
43-5032	Dispatchers, Except Police, Fire, and Ambulance	44.90%	430	150	860	\$49,180
53-3031	Driver/Sales Workers	42.80%	860	350	840	\$47,240
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	41.80%	490	200	1,770	\$42,430

39-7010	Tour and Travel Guides	35.80%	440	270	1,150	\$44,620
53-2012	Commercial Pilots	33.20%	120	60	450	\$102,390
53-3052	Bus Drivers, Transit and Intercity	31.90%	580	300	2,130	\$69,090
43-5011	Cargo and Freight Agents	26.90%	300	150	1,900	\$39,720
53-2011	Airline Pilots, Copilots, and Flight Engineers	26.30%	320	180	1,220	\$226,600
49-3011	Aircraft Mechanics and Service Technicians	24.20%	290	140	1,170	\$83,200

Sources: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, 2024
HireNet Hawaii, Long-Term Occupational Projections to 2030

The occupations with the highest median annual wages are shown in Table 5 below. Airline Pilots, Copilots, and Flight Engineers have the highest median wages at \$226,600, followed by Air Traffic Controllers (\$142,040) and Electronics Engineers (\$123,990).

Table 5: Top Ten Occupations by Median Wage

SOC	Occupation	Median Wage (2024)	Employment Statewide (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)	Total Annual Openings
53-2011	Airline Pilots, Copilots, and Flight Engineers	\$226,600 ¹⁰	1,220	320	26.30%	180
53-2021	Air Traffic Controllers	\$142,040	220	10	4.40%	30
17-2072	Electronics Engineers, Except Computer	\$123,990	310	0	0.0%	30
17-2199	Engineers, All Other	\$120,330	920	0	-0.4%	50
53-7021	Crane and Tower Operators	\$115,870	220	10	5.80%	10
53-5031	Ship Engineers	\$110,240	60	0	11.10%	*
11-3071	Transportation, Storage, and Distribution Managers	\$106,960	620	50	10.60%	40
53-6051	Transportation Inspectors	\$105,650	170	10	7.50%	20
17-2081	Environmental Engineers	\$105,230	260	0	0.0%	10

¹⁰ The median wage for Airline Pilots, Copilots, and Flight Engineers nationwide is \$226,600 according to Bureau of Labor Statistics 2024 wage data. Hawai'i median wages were unavailable for this occupation.

17-2071	Electrical Engineers	\$105,060	980	30	3.2%	70
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Sources: U.S. Bureau of Labor Statistics, Occupational Employment and Wage Statistics, 2024
HireNet Hawaii, Long-Term Occupational Projections to 2030

Transportation Workforce Needs by Sub-Sector

In addition to the quantitative labor market data, industry insights are essential to understanding the current employment landscape and workforce needs of each transportation sub-sector in Hawai'i. AE Consulting interviewed 24 Hawai'i employers and community partners across the transportation sub-sectors of water transportation, air transportation, and ground transportation to gather input on in-demand jobs and key qualifications for these roles, including certifications and training. An overview of the labor market data and stakeholder insights for each subsector is included below.

Water Transportation



Air Transportation



Ground Transportation



Water Transportation

Sub-Sector Overview

As an island state, Hawai'i's water transportation system is essential for the movement of goods and people throughout the state. Inter-island cargo shipping, harbor operations, and port management are vital to ensuring the uninterrupted flow of food, fuel, construction materials, and consumer goods. Nearly all goods imported into the state pass through its harbors, making maritime transport a foundational element of Hawai'i's supply chain and economic stability.

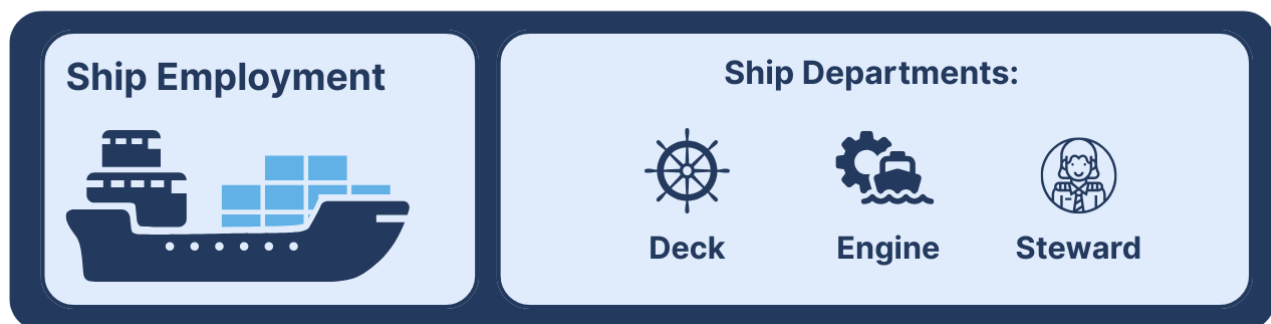
As such a significant and integral piece of the economy, the water transportation sector provides significant opportunities for employment for our local population, from dockworkers and vessel crews to maritime engineers. While this study focuses specifically on marine transportation, AE Consulting previously conducted the [Hawai'i Marine Economy Workforce Analysis](#), which took a broader look at the marine economy as a whole, including marine transportation and ship and boat building and repairs. According to that study, marine transportation and ship and boat building accounted for approximately 10,461 jobs in Hawai'i in 2021, with

7,133 jobs in ship and boat building and 3,328 marine transportation jobs.¹¹ Between 2011 and 2021, approximately 1,500 jobs were gained in ship and boat building and marine transportation in Hawai'i.

The water transportation sub-sector offers competitive wages, with \$100,361 wages per employee in marine transportation and \$99,397 wages per employee in ship and boat building.¹² Moreover, median earnings for Water Transportation occupations in Hawai'i had the highest growth of all occupations in the state from 2016-2023, with 64% median earnings growth, much higher than the national growth rate of 18%.¹³ Many positions in water transportation are also unionized, providing strong benefits and job security.

In-Demand Job Opportunities

In-demand job opportunities in Hawai'i's water transportation sub-sector include employment aboard ships and boats, as well as shoreside employment, such as marine freight and ship and boat building and repairs.



Ships have three main departments: Deck, Engine, and Steward. Each of these departments offers entry-level opportunities with clear pathways for advancement. A Transportation Worker Identification Card (TWIC) issued by the Transportation Security Administration (TSA) and an entry-level Merchant Mariner Credential (MMC) issued by the U.S. Coast Guard are required for entry-level roles on a ship. Candidates can advance to higher-level roles with additional endorsements from the U.S. Coast Guard, which requires additional sea service hours and examinations.

¹¹ Economics: National Data Watch (ENOW), NOAA (2021). <https://coast.noaa.gov/digitalcoast/data/enow.html>. While Hawai'i's water transportation industry alone accounts for 1,490 jobs according to U.S. Bureau of Labor Statistics data, the ENOW methodology incorporates other industries in estimating water transportation. In the ENOW data, water transportation includes the following industries: Deep Sea Freight, Marine Passenger Transportation, Pipeline Transportation, Marine Transportation Services, Search & Rescue Navigation Equipment, and Warehousing.

¹² Economics: National Data Watch (ENOW), NOAA (2021).

¹³ Top Occupations in Hawai'i, DBEDT READ (2025)

https://files.hawaii.gov/dbedt/economic/reports/Top20_Occupations_Hawaii_2023.pdf

- **Deck Department:** *Ordinary Seaman* is the entry-level role in the deck department. Candidates can advance to Able Seaman, Third Mate/Officer, Second Mate/Officer, Chief Mate, and Captain.
- **Engine Department:** *Wiper* is the entry-level role in the engine department. Candidates can advance to Oilers, Third Engineers, Second Engineers, and Chief Engineers.
- **Steward Department:** *Steward Assistant* is the entry-level role in the steward department. Candidates can advance to become Chief Stewards or Chief Cooks with experience.



Shoreside employment in water transportation includes diverse job roles supporting ship and boat building and repairs, warehousing, and harbor operations.

- **Maintenance & Laborers:** Janitors and general laborers are in demand for harbor maintenance and operations, offering entry-level opportunities. Laborers are also employed in maritime warehousing and cargo.
- **Skilled Trades:** Various skilled trades workers, including mechanics, welders, machinists, and riggers, are employed on the production side of shipyards. Apprenticeships or vocational training are common entry points for these skilled trades roles. Longshore workers and stevedores are also in demand in maritime warehousing and cargo.
- **Engineers:** Engineers, including mechanical, electrical, civil, nuclear, and ocean engineers, are in demand in ship and boat building and repairs, as well as for harbor maintenance. Engineering roles typically require a bachelor's degree in engineering and may require a Professional Engineer (PE) license.
- **Planners and Project Managers:** Planners and project managers are essential to executing harbor infrastructure and facilities projects. These positions typically require a bachelor's degree in a relevant field and may require specialized work experience and knowledge.

Education & Training Landscape

Hawai'i students and job seekers can prepare for employment in water transportation by attaining relevant certifications or by pursuing apprenticeships and post-secondary degrees.

Certifications:

In-demand certifications in water transportation include:



Transportation Worker Identification Card (TWIC): A TWIC is a common prerequisite for working on vessels or in harbors.



U.S. Coast Guard Licenses: The Entry-Level Merchant Mariner Credential (MMC) is a prerequisite for employment on ships. Additional endorsements from the U.S. Coast Guard are required for advancement to higher level roles.



Forklift Operator Certification: Forklift operator certification is in demand for jobs in warehousing. [Leeward Community College](#) offers training for this certification.



Professional Engineer (PE): For some engineering jobs in maritime, a PE license may be required. Candidates for a PE license must hold a 4-year college degree, have four years of experience working under a PE, and pass the FE and PE exams.

Apprenticeships & Training:

Relevant apprenticeship and training programs in water transportation include:

- **The Maritime Institute:** The Maritime Institute has a satellite training location in Honolulu that offers various courses, including basic training and Able Seaman. However, it does not provide certain training requirements for an Able Seaman rating, such as Lifeboatman/Proficiency in Survival Craft.
- **Marimed Foundation:** Marimed Foundation is a nonprofit organization based in Kāne'ohe and Kahalu'u on O'ahu. They offer a variety of training for students aimed at preparing local students and job seekers to enter the maritime industry.
- **Pearl Harbor Apprenticeship:** Honolulu Community College offers an apprenticeship program in partnership with the Pearl Harbor Naval Shipyard. Apprentices earn an Associate Degree in Applied Trades upon program completion.
- **SIU Apprenticeship:** The Seafarer's International Union (SIU) offers an Unlicensed Apprenticeship (UA) Program located in Maryland. The program

includes 4 months of classroom instruction and 7 months of paid on-the-job training. The Union helps to cover associated costs for students.

- **IBU Apprenticeship:** The Inlandboatmen's Union of the Pacific (IBU) offers a 2-year Seamanship Training Program at Tongue Point in Oregon. Students' expenses can be covered by the IBU. Students earn entry-level licenses upon completion of the program.

Post-Secondary Degree Programs:

Relevant post-secondary programs for water transportation include:

- **University of Hawai'i at Mānoa College of Engineering:** The UH Mānoa College of Engineering offers bachelor's and master's degrees in a variety of engineering disciplines relevant to maritime, including mechanical, electrical, and civil engineering.
- **Cal Maritime:** Cal Maritime is a 4-year maritime academy that provides a fast track into the maritime industry. Their degree programs include marine transportation and marine engineering technology.
- **University of Hawai'i at Mānoa Department of Urban and Regional Planning:** The UH Mānoa Department of Urban and Regional Planning offers several degrees and certificates related to transportation planning, including a Global Environmental Science and Urban and Regional Planning Combined Bachelor's and Master's Degree.

Air Transportation

Sub-Sector Overview

As a geographically remote island chain, Hawai'i's air transportation system is essential for linking Hawai'i to the continental U.S. and international destinations, as well as connecting communities across the state. The aviation network plays a central role in enabling passenger travel and facilitating the rapid transport of high-priority cargo.

The air transportation industry is vital to sustaining one of the most significant pillars of the state's economy, tourism. Air travel serves as the primary gateway for Hawai'i's visitor industry, which contributed \$18.9 billion to the state's Gross Domestic Product (GDP) in 2023.¹⁴ That year, 9.5 million visitors came to Hawai'i by air, a 4% increase from 2022.¹⁵

The air transportation sub-sector provides substantial opportunities for employment, accounting for 9,800 jobs in Hawai'i. From pilots and air traffic controllers to ground crew, maintenance technicians, and airport operations staff, the industry supports a wide array of career pathways that are critical to maintaining the safety, efficiency, and continuity of Hawai'i's air mobility systems.

While many airlines operate out of the state, Hawaiian Airlines has been one of the state's largest air travel employers. In 2024, Alaska Airlines acquired Hawaiian Airlines, merging the carriers, but despite the merger, hiring needs in key areas are anticipated to increase in the future.

Overall, air transportation industry employment in Hawai'i is projected to grow by 3% annually from 2020-2030, and pay in this sub-sector is competitive. Air transportation occupations in the state have the highest median hourly earnings in the state, with \$65.22 per hour, compared to \$50.53 nationwide.¹⁶ Air Transportation Workers also saw some of the highest growth in median earnings from 2016 to 2023 at 51%, compared to 35% earnings growth nationwide.

¹⁴ Tourism and Hawaii Economy, DBEDT READ (2024) https://files.hawaii.gov/dbedt/economic/data_reports/download/Tourism%20and%20Hawaii%20Economy_Dec2024.pdf

¹⁵ 2023 Annual Visitor Research Report, DBEDT READ <https://files.hawaii.gov/dbedt/visitor/visitor-research/2023-annual-visitor.pdf>

¹⁶ Top Occupations in Hawai'i, DBEDT READ (2025) https://files.hawaii.gov/dbedt/economic/reports/Top20_Occupations_Hawaii_2023.pdf

In-Demand Job Opportunities

Air transportation job opportunities are highly diverse in terms of job role and setting. This sub-sector includes private sector employment with local airlines, as well as public sector employment at local airports.



In-demand jobs with local airlines include entry-level airport operations roles, as well as more specialized roles, like aviation mechanics and airline pilots.

- **Entry-Level Airport Operations Roles:** *Aircraft appearance personnel, guest service agents, and ramp agents* are entry-level opportunities with hourly pay starting around \$16 per hour. Candidates for these positions must be at least 18 with a high school diploma or GED. They may also be required to carry a driver's license, pass a background check, and lift up to a specified weight. There are opportunities for candidates in these roles to advance to leadership positions or specialize in a particular area of operations.
- **Specialized Roles:** *Aviation mechanics and airline pilots* are specialized roles that require specific training and industry credentials. Aviation mechanics must hold an Airframe & Powerplant (A&P) Certification from the Federal Aviation Administration (FAA). Airline pilots for carriers like Hawaiian Airlines and Alaska Airlines must hold an Airline Transport Pilot (ATP) certificate issued by the FAA, with 1,500 total flight hours and a minimum of 1,000 fixed-wing hours. To become an airline pilot, candidates must gain experience flying for a regional carrier on the U.S. continent.

Airport Employment



In-Demand Job Types:



Contract Assistants



Airport Operations Center Staff



Air Traffic Controllers



Maintenance Workers & Engineers

In-demand public sector jobs based at Hawai'i airports include entry-level contract assistants, Airport Operations Center staff, air traffic controllers, maintenance workers, and engineers.

- **Contract Assistants:** Contract Assistants are an entry-level position employed in various airport departments, such as fiscal, engineering, and property management.
- **Airport Operations Center (AOC) Staff:** AOC staff direct planes to their gates. This position typically requires specialized experience in the field, and the pool of local candidates who have such experience is limited. However, there may be opportunities for candidates to enter this role as a probationary employee to gain the experience needed to meet the minimum qualifications.
- **Air Traffic Controllers:** Air traffic controllers must be certified by the FAA by completing [required training courses](#) at the FAA Academy in Oklahoma.
- **Airport Duty Managers:** Airport duty managers supervise services and activities at the airports. This position requires specialized experience and knowledge in the field.
- **Maintenance Workers:** A variety of maintenance and skilled trades positions are in demand at local airports, including custodians, landscapers, plumbers, electricians, and carpenters.
- **Engineers:** Engineers who specialize in areas such as airfields, asphalt, and concrete are essential to the construction and maintenance of Hawai'i's airports.
- **Data Analysts:** The state employs data analysts to collect and analyze data used to improve airport efficiency.¹⁷

Education & Training Landscape

Hawai'i students and job seekers may prepare for employment in air transportation by attaining relevant certifications, as well as pursuing apprenticeships and post-secondary degrees.

¹⁷ Data analysts were not included as a transportation occupation in the labor market data, as this role does not typically require transportation-specific knowledge or skillsets. However, it was noted in the qualitative feedback.

Certifications:

In-demand certifications in air transportation include:



Drone Pilot Certification: Drone Pilot Certification is a valuable entry-level certification for candidates interested in aviation. Candidates must be at least 16 years old.



Private Pilot License: Attaining a Private Pilot License (PPL) is a prerequisite to attaining a Commercial Pilot License. Candidates must be at least 17 years old to obtain this license.



Commercial Pilot License: A Commercial Pilot License allows the pilot to receive compensation for flying. This license requires 250 hours of flight time and candidates must be at least 18 years old.



Airline Transport Pilot (ATP) License: An ATP License is required for most airline pilot jobs. Candidates must hold a Commercial Pilot License and log 1,500 hours of flight time, which typically takes 2-3 years. Candidates must be at least 23 years old to obtain this license.



A&P Mechanic Certificate: The Airframe & Powerplant (A&P) certificate is a standard qualification for employment as an aviation mechanic. Candidates must be at least 18 years old and meet the practical experience requirements or graduate from an FAA-approved Aviation Mechanic Technician School.



Air Traffic Controller Certification: Air Traffic Controllers must be certified by the FAA. Candidates must complete the required FAA Academy training courses and gain 2-3 years of additional training to be certified.



Professional Engineer (PE): For some engineering jobs in air transportation, a PE license may be required. Candidates for a PE license must hold a 4-year college degree, have four years of experience working under a PE, and pass the FE and PE exams.

Apprenticeships & Training:

Relevant apprenticeship and training programs in air transportation include:

- **Pearl Harbor Aviation Museum Pilot Training:** The Pearl Harbor Aviation Museum offers an Aviation Pathways program for youth (ages 16-21) to complete pilot training that prepares them to test for their Private Pilot

License. The program includes mentorship, flight simulator training, and preparation for ground exams and testing. The program also offers grants of up to \$10,000 for flight school. There are many other private pilot license training programs available locally through private flight schools.

- **Honolulu Community College Aeronautics Maintenance Technology:** The Aeronautics Maintenance Technology program at Honolulu Community College prepares students for A&P Certification.
- **Embry-Riddle Aeronautical University Aviation Maintenance SkillBridge Program:** Embry-Riddle Aeronautical University (ERAU) offers a nine-week Aviation Maintenance Technology SkillBridge program for transitioning service members, veterans, and eligible military spouses.

Post-Secondary Degree Programs:

Post-secondary programs relevant to air transportation include:

- **Embry-Riddle Aeronautical University (ERAU):** ERAU has multiple sites in Hawai'i, including [Honolulu](#), [Kāne'ohe](#), and [Schofield Barracks](#). ERAU offers a variety of certificates and degrees related to aviation, including aeronautics, aviation maintenance, and engineering, as well as online and in-person [dual enrollment programs](#) for high school students. The Schofield Barracks site also provides Federal Aviation Administration (FAA) written testing.
- **University of Hawai'i at Mānoa College of Engineering:** The UH Mānoa College of Engineering offers bachelor's and master's degrees in a variety of engineering disciplines relevant to air transportation.

Ground Transportation

Sub-Sector Overview

Ground transportation is the foundation of daily mobility for residents, visitors, workers, and businesses across Hawai'i. Whether through public roadways or public transit systems, ground transportation enables access to jobs, education, healthcare, goods, and commerce in our communities. It is especially critical for rural and underserved communities, where dependable transportation options support equity, connectivity, and quality of life.

As the state works toward a more sustainable and resilient transportation future, this sector presents a growing range of employment opportunities for local residents. From commercial drivers to bus operators, mechanics, and infrastructure planners, ground transportation offers numerous career pathways that contribute directly to the state's economic vitality.

The ground transportation industry in Hawai'i accounts for at least 6,480 jobs, including in truck transportation (3,030 jobs) and transit & ground passenger transportation (3,450 jobs). Median wages in ground transportation were \$51,130 for truck transportation and \$34,960 for transit & ground passenger transportation in 2023. While these numbers are lower than some seen in other sub-sectors, there are many occupations in ground transportation that offer more competitive wages, including Bus and Truck Mechanics (\$70,010 median salary), Bus Drivers (\$69,090 median salary), and Heavy and Tractor-Trailer Truck Drivers (\$57,290 median salary). Emerging Rail Transportation occupations also offer some of the highest median wages in the state, at \$41.46 per hour.¹⁸

In-Demand Job Opportunities

Ground transportation in Hawai'i includes careers in public transit and infrastructure, as well as employment with private sector delivery companies and local taxis and rideshare companies.

¹⁸ Top Occupations in Hawai'i, DBEDT READ (2025)
https://files.hawaii.gov/dbedt/economic/reports/Top20_Occupations_Hawaii_2023.pdf

Public Transit & Infrastructure



In-Demand Job Types:



Bus Operators & Handivan Drivers



Diesel & Automotive Mechanics



Engineers



Rail Operations, Maintenance, and Engineering

In-demand jobs in public transit and infrastructure include drivers, mechanics, engineers, and skilled technicians for rail transit maintenance.

- **Junior Operators:** Junior operators are entry-level bus drivers. This role requires a CDL B with a passenger endorsement, and the minimum age is 21 years old. Entry-level candidates start at approximately \$27 per hour and can advance up to \$34 per hour after 5 years. Candidates may advance to supervisory or managerial positions.
- **Handivan Drivers:** Handivan drivers must have a standard Class 3 driver's license, but are not required to have a CDL. The minimum age for this position is 18 years old.
- **School Bus Drivers:** School bus drivers must have a CDL with passenger and school bus endorsements. The Hawai'i Department of Education has a shortage of school bus drivers, and the department needed 87 additional drivers as of December 2024.¹⁹
- **Mechanics:** Bus mechanics must be at least 21 years old with a CDL and are required to pass written testing to demonstrate their technical knowledge. Candidates can start as an entry-level mechanic's helper and work their way up. Bus mechanics start at \$31 per hour and can earn up to \$36 per hour after 4 years. Handivan mechanics must be at least 18 years old with a standard driver's license.
- **Electricians:** Electricians who specialize in traffic signal maintenance are essential to ground transit operations. The City & County of Honolulu offers a specialized apprenticeship program to train candidates for these roles.
- **Engineers:** Engineers, especially those with Professional Engineer (PE) certification, are in high demand to support Hawai'i's ground transit infrastructure.
- **Planners:** The counties employ many planners to support transit infrastructure projects. This position typically requires a 4-year degree in a relevant field, and industry experience is preferred.

¹⁹ <https://www.hawaii.edu/news/2024/12/04/bus-driver-training-leeward-cc/>

- **Business Analysts:** The state employs business analysts who support transportation projects and operations.²⁰
- **Rail Transit:** Within public transit, Honolulu’s rail transit system has three main departments: Operations, Maintenance, and Engineering, Safety & Training. Entry-level opportunities are available within each of these departments.
 - **Operations:** Entry-level operations roles include Station Operators and Information Controllers, with opportunities for advancement to supervisory and managerial roles.
 - **Maintenance:** Entry-level maintenance roles include Track Repairmen and Platform Screen Gates (PSG) Technicians. PSG Technicians are particularly in demand. This position requires a background in electronics theory and the ability to read schematics and blueprints. The Leeward Community College Mechatronics program prepares qualified candidates for these roles.
 - **Engineering, Safety & Training:** This department offers entry-level opportunities for Building Service Technicians. Engineering positions are also in high demand, but are often hard to fill locally due to the specialized rail transit knowledge required.

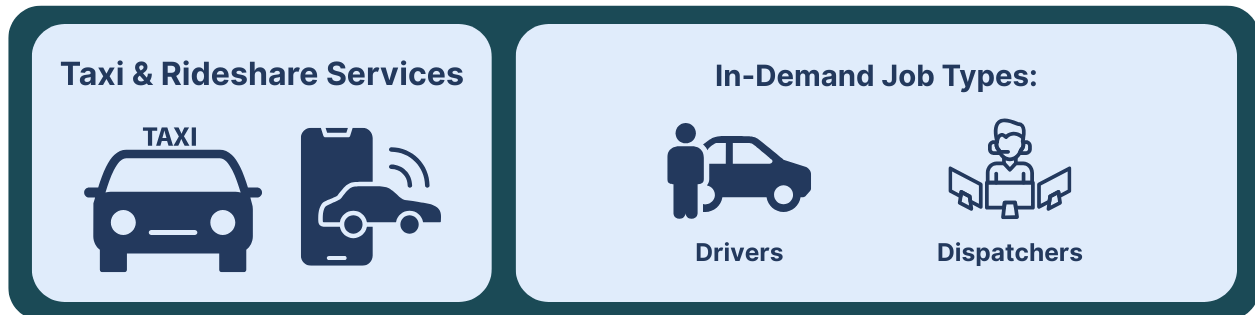


In-demand jobs with private companies that provide delivery services include warehouse laborers, commercial motor vehicle (CMV) drivers, freight drivers, and mechanics.

- **Warehouse Laborers:** Warehouse laborers are an entry-level role that provides broad exposure to the field.
- **Commercial Motor Vehicle (CMV) Drivers:** CMV drivers or Type 3 drivers are entry-level driver roles that require a standard Class 3 driver’s license. Candidates must have a clean driving record to qualify for these roles.

²⁰ Business analysts were not included as a transportation occupation in the labor market data, as this role does not typically require transportation-specific knowledge or skillsets. However, it was noted in the qualitative feedback.

- **Straight Truck Drivers:** Straight Truck Drivers must have a Class B CDL, allowing them to operate a single vehicle with a gross vehicle weight of 26,000 pounds or more.
- **Freight Drivers:** Freight Drivers must have a Class A CDL, allowing them to operate a combination of vehicles with a gross combination weight exceeding 26,001 pounds, including a towed vehicle over 10,000 pounds.
- **Mechanics:** Diesel and automotive mechanic positions are in-demand roles for local delivery service companies.



Local taxi companies need drivers and dispatchers, particularly those who speak Japanese.

- **Taxi Drivers:** Taxi drivers are contract employees. Drivers must have a clean driving record and complete simulator and road training under supervision. Earnings are variable, but drivers typically earn approximately \$250 to \$350 per day.
- **Taxi Dispatchers:** Experienced dispatchers who are familiar with the local roadways are in high demand.

Rideshare companies, such as Uber and Lyft, also account for thousands of gig opportunities in the state. However, the exact size of this workforce is difficult to quantify due to a lack of public data.

Education & Training Landscape

Hawai'i candidates can prepare for employment in ground transportation by attaining relevant certifications, as well as pursuing apprenticeships and post-secondary degrees.

Certifications:

In-demand certifications in ground transportation include:



Transportation Worker Identification Card (TWIC): A TWIC is required for drivers who require access to harbors.



Forklift Operator: Forklift Certification is relevant for delivery and warehousing roles. [Leeward Community College](#) offers training for this certification.



Class A Commercial Driver's License: A Class A CDL is required to drive any combination of vehicles with a gross vehicle weight rating exceeding 26,001, including a towed vehicle weighing more than 10,000 pounds. A CDL permit may be attained at age 18, but the minimum age for licensure is 21 years old. Some employers provide on-the-job training and licensure support.



Class B Commercial Driver's License: A Class B CDL is required to drive any single vehicle with a gross vehicle weight rating of 26,000 or more. A CDL permit may be attained at age 18, but the minimum age for licensure is 21 years old. Some employers provide on-the-job training and licensure support.



CDL HAZMAT Endorsement: A HAZMAT endorsement is required for CDL drivers transporting hazardous materials, such as cleaning supplies, pesticides, or industrial chemicals. Candidates must pass the HAZMAT knowledge exam and Transportation Security Administration threat assessment.



Passenger and School Bus Endorsements: A passenger endorsement test is required for drivers transporting 15 or more passengers. School bus drivers must also pass the school bus endorsement test.



Professional Engineer (PE): For some engineering jobs in ground transportation, a PE license may be required. Candidates for a PE license must hold a 4-year college degree, have four years of experience working under a PE, and pass the FE and PE exams.

Apprenticeships & Training:

Relevant apprenticeship and training programs in ground transportation include:

- **Leeward Community College Commercial Motor Vehicle Training:** Leeward Community College offers commercial motor vehicle permit preparation and training courses, including for CDL A, B, and school buses. CDL training is typically 4-5 weeks with cohorts of 4-8 students, and more than 100 students are on the waitlist. Currently, new CDL cohorts start every three months. Cohorts could run more frequently if more state examiners were available to reduce the wait time for licensing exams.

- **Professional Driving Academy:** Professional Driving Academy is another local provider of CDL training.
- **Leeward Community College Mechatronics:** The mechatronics program is highly recommended for students interested in pursuing a career as a rail transit technician.
- **Honolulu Community College Diesel Mechanics Technology:** Honolulu Community College's Diesel Mechanics Technology program prepares students for careers as mechanics of buses or other heavy trucks.
- **Traffic Signal Electrician Apprenticeship:** The City & County of Honolulu has an apprenticeship program for Traffic Signal Electricians. This program has approximately two openings annually.

Post-Secondary Degree Programs:

Relevant post-secondary programs for ground transportation include:

- **University of Hawai'i at Mānoa College of Engineering:** The UH Mānoa College of Engineering offers bachelor's and master's degrees in a variety of engineering disciplines relevant to ground transportation.
- **University of Hawai'i at Mānoa Department of Urban and Regional Planning:** The UH Mānoa Department of Urban and Regional Planning offers several degrees and certificates related to transportation planning, including a Global Environmental Science and Urban and Regional Planning Combined Bachelor's and Master's Degree.

Stakeholder Feedback

Through employer interviews, AE Consulting identified common workforce challenges employers are encountering across the transportation sub-sectors in Hawai'i, as well as strategies being implemented to address them.

Challenges

Lack of Career Awareness: Many employers identified a lack of career awareness among students, their families, and Hawai'i residents more broadly as a recruitment barrier. They emphasized that many students may have negative perceptions of transportation careers.

Systemic Barriers to Recruitment: Government employers shared that their recruitment requirements and processes often pose challenges to efficiently filling positions.

Employee Turnover: Many employers reported experiencing higher employee turnover in recent years, particularly for entry-level roles.

Generational Challenges: Employers have experienced challenges with professionalism and work ethic among younger workers. There is also a growing demand for hybrid and remote work among younger workers, which is incompatible with many transportation roles, such as drivers and mechanics.

Maintaining Competitive Pay: Given the tight labor market, transportation sector employers feel the pressure to offer higher pay to compete with other industries for a limited pool of talent. This is particularly challenging for certain employers hiring for roles that may be stigmatized or seen as less desirable, such as bus drivers. Candidates can often receive the same or higher pay driving in a less stressful environment.

Limited Local Training Capacity: Local training is limited for in-demand transportation jobs, including CDL drivers, vessel crew, and aviation mechanics. The lack of qualified local instructors is a major limitation on training capacity. In part, these positions are difficult to fill because candidates can earn higher pay working in the industry than as instructors.

Shortage of CDL Examiners: The limited number of examiners for a CDL license in the state is a major barrier to meeting the demand for drivers. Employers shared that current wait times for CDL exams may be 1-2 months, and often even longer on the neighbor islands. These examination delays are also a significant constraint on local training capacity.

Minimum Age for CDL Licensure: The minimum age for attaining a CDL in Hawai'i is 21 years old, which means that high school graduates who are interested in becoming truck drivers must wait 2-3 years before they can attain their CDL. Because of this gap, students may choose other career paths.

Training Costs: Costs associated with training can be a barrier for local candidates, particularly for occupations that require extensive training, such as airline pilots.

Aging Workforce: Many employers are anticipating upcoming retirements, which will leave critical gaps in specialized and managerial roles.

Lack of Data on Transportation Gig Economy: The lack of public data on transportation gig employment in Hawai'i, including with rideshare companies, limits the state's understanding of the scope and impact of this workforce.

Strategies

Promoting Transportation Careers: Many employers are focusing on improving public awareness and perceptions of careers in their field by implementing new messaging tactics, attending career fairs, offering Work-Based Learning for students, and putting on community events.

Industry-Education Partnerships: Several employers are already partnering with local secondary and post-secondary entities to recruit candidates and address training gaps. For example, the Hawai'i Department of Education is currently developing an Airframe & Powerplant training program for their high school students in partnership with Pearl Harbor Aviation Museum, which will help to increase local training capacity in this high-demand field and streamline the career pathway from secondary education to industry.

Offering Internships: Employers are offering paid internships for high school and/or college students that provide career exposure to opportunities in different departments and roles.

Providing Financial Assistance: Some employers and training providers are incorporating financial assistance or scholarships in their programs to reduce barriers to access.

Creating Pathways for Advancement: To retain their workers, employers are creating clear pathways for advancement from entry-level roles to more specialized or senior roles. Some even provide in-house training and support for incumbent workers to upskill their credentials.

Pay Raises and Incentives: Employers are advocating for pay raises to maintain competitive salaries and retain their workers. Some also offer signing bonuses for hard-to-fill positions.

Expediting Hiring Processes: Government employers are exploring strategies to improve the efficiency of their hiring processes and make their jobs more accessible. This includes hiring probationary employees so candidates can gain the experience needed to meet minimum qualifications, reclassifying positions, and allowing candidates to substitute certain certifications for associate degree requirements.

Recommendations

Career Awareness: Ensure Hawai'i students and job seekers are aware of the diverse career paths in water, air, and ground transportation and promote the sector by highlighting its unique opportunities and benefits. Early career awareness, including through work-based learning opportunities, is essential to reaching students.

Develop Clear Pathways from Secondary to Career: Recruiting talent in fields like aviation, maritime, and commercial driving can be challenging if the entry points and advancement opportunities are unclear to students. Developing clear education and career pathways will be critical to recruiting and retaining local talent. This includes the need to bridge the gap between graduating from high school at age 18 and attaining a CDL at age 21.

Develop and Expand Local Training Opportunities: There is a need to develop and expand local training opportunities, especially in maritime and aviation, so that students don't have to relocate to the continent in order to qualify for in-demand, high-paying jobs at home.

Address Shortage of Instructors and Examiners: Addressing the shortage of local training instructors, particularly for aviation maintenance, is essential to increase local training capacity. In the CDL space, more examiners are needed to reduce the wait times for licensing exams, increase training capacity, and keep up with the industry demand.

Increase Funding for Training and Wraparound Support: Increasing funding for training and wraparound support services will reduce barriers to accessing high-need training, like CDL and aviation.

Address Barriers to Public Sector Transportation Careers: Develop incentives for filling high-demand public sector positions in the state, such as bus drivers and engineers, and address systemic barriers to improve the efficacy of hiring processes.

Align Training with Evolving Technologies: Ensuring training keeps pace with evolving technologies like electric vehicles and automation is key to maintaining a highly skilled local workforce that meets industry needs.

Industry-Education Collaboration: Partnerships and collaboration among secondary education, post-secondary education, and industry are critical to bridging local training gaps and developing clear career pathways.

Appendix A: Tables

Table 6: Relevant Transportation Occupations with Median Salary Above ALICE Individual Survival Budget

SOC	Occupation	Emp. Statewide (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)	Total Annual Openings	Education	Work Exp.	Job Training
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	9,150	\$44,050	960	13.60%	1,080	None	None	Short OTJ
53-3032	Heavy and Tractor-Trailer Truck Drivers	4,100	\$59,320	420	9.50%	540	Postsec	None	Short OTJ
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	3,110	\$86,460	300	11.00%	280	HS/equiv	< 5 yrs	None
47-2111	Electricians	3,020	\$83,200	250	7.20%	400	HS/equiv	None	Apprenticeship
49-3023	Automotive Service Technicians and Mechanics	2,950	\$50,560	20	0.90%	230	Postsec	None	Short OTJ
53-1047	First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	2,840	\$61,680	420	17.00%	330	HS/equiv	< 5 yrs	None
53-3033	Light Truck Drivers	2,800	\$44,310	560	11.60%	610	HS/equiv	None	Short OTJ
47-2152	Plumbers, Pipefitters, and Steamfitters	2,640	\$78,540	100	3.70%	280	HS/equiv	None	Apprenticeship
53-3052	Bus Drivers, Transit and Intercity	2,130	\$69,090	580	31.90%	300	HS/equiv	None	Moderate OTJ
43-5011	Cargo and Freight Agents	1,900	\$39,720	300	26.90%	150	HS/equiv	None	Short OTJ

SOC	Occupation	Emp. Statewide (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)	Total Annual Openings	Education	Work Exp.	Job Training
17-2051	Civil Engineers	1,880	\$94,970	160	6.80%	180	Bachelor's	None	None
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	1,770	\$42,430	490	41.80%	200	HS/equiv	None	Short OTJ
43-5071	Shipping, Receiving, and Inventory Clerks	1,740	\$45,420	-20	-1.40%	\$150	HS/equiv	None	Short OTJ
43-5052	Postal Service Mail Carriers	1,290	\$54,270	30	2.80%	80	HS/equiv	None	Short OTJ
53-3053	Shuttle Drivers and Chauffeurs	1,240	\$39,880						
53-2011	Airline Pilots, Copilots, and Flight Engineers	1,220	\$226,600	320	26.30%	180	Bachelor's	< 5 yrs	Moderate OTJ
49-3011	Aircraft Mechanics and Service Technicians	1,170	\$83,200	290	24.20%	140	Postsec	None	None
39-7010	Tour and Travel Guides	1,150	\$44,620	440	35.80%	270	HS/equiv	None	Moderate OTJ
17-2071	Electrical Engineers	980	\$105,060	30	3.2%	70	Bachelor's	None	None
17-2199	Engineers, All Other	920	\$120,330	0	-0.4%	50	Bachelor's	None	None
53-7051	Industrial Truck and Tractor Operators	860	\$58,070						
43-5032	Dispatchers, Except Police, Fire, and Ambulance	860	\$49,180	430	44.90%	150	HS/equiv	None	Moderate OTJ
53-3031	Driver/Sales Workers	840	\$47,240	860	42.80%	350	HS/equiv	None	Short OTJ
53-7081	Refuse and Recyclable Material Collectors	740	\$55,330	60	8.10%	100	None	None	Short OTJ
53-6061	Passenger Attendants	690	\$41,760						

SOC	Occupation	Emp. Statewide (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)	Total Annual Openings	Education	Work Exp.	Job Training
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	670	\$79,010	140	14.10%	110	HS/equiv	None	Long OTJ
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	640	\$78,060	30	7.30%	40	HS/equiv	None	Long OTJ
11-3071	Transportation, Storage, and Distribution Managers	620	\$106,960	50	10.60%	40	HS/equiv	5+ yrs	None
51-4121	Welders, Cutters, Solderers, and Brazers	570	\$76,970	0	0.00%	70	HS/equiv	None	Moderate OTJ
53-5021	Captains, Mates, and Pilots of Water Vessels	530	\$75,980	230	52.10%	80	Postsec	< 5 yrs	None
53-3051	Bus Drivers, School	530	\$51,210						
17-2141	Mechanical Engineers	460	\$95,250	0	-0.1%	50	Bachelor's	None	None
43-5051	Postal Service Clerks	460	\$63,690	10	2.90%	40	HS/equiv	None	Short OTJ
49-3021	Automotive Body and Related Repairers	460	\$59,770	50	6.00%	80	HS/equiv	None	Long OTJ
53-2012	Commercial Pilots	450	\$102,390	120	33.20%	60	HS/equiv	None	Moderate OTJ
19-3051	Urban and Regional Planners	450	\$80,170	20	2.8%	50	Master's	None	None
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	440	\$56,450	-10	-2.50%	\$30	HS/equiv	None	Short OTJ
17-2072	Electronics Engineers,	310	\$123,990	0	0.0%	30	Bachelor's	None	None

	Except Computer								
SOC	Occupation	Emp. Statewide (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)	Total Annual Openings	Education	Work Exp.	Job Training
53-6032	Aircraft Service Attendants	300	\$49,970						
17-2081	Environmental Engineers	260	\$105,230	0	0.0%	10	Bachelor's	None	None
53-5022	Motorboat Operators	240	\$64,670	70	23.80%	40	Postsec	< 5 yrs	None
53-6031	Automotive and Watercraft Service Attendants	240	\$42,680						
49-3051	Motorboat Mechanics and Service Technicians	230	\$77,270	10	15.90%	10	HS/equiv	None	Long OTJ
53-2021	Air Traffic Controllers	220	\$142,040	10	4.40%	30	Associate's	None	Long OTJ
53-7021	Crane and Tower Operators	220	\$115,870	10	5.80%	10	HS/equiv	< 5 yrs	Moderate OTJ
53-5011	Sailors and Marine Oilers	210	\$63,280	0	-3.40%	10	None	None	Moderate OTJ
53-1041	Aircraft Cargo Handling Supervisors	190	\$64,270	30	21.20%	20	HS/equiv	< 5 yrs	None
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	190	\$44,700	-10	-5.00%	\$20	HS/equiv	None	Short OTJ
53-3099	Motor Vehicle Operators, All Other	180	\$64,660	20	7.50%	50	None	None	Short OTJ
53-6051	Transportation Inspectors	170	\$105,650	10	7.50%	20	HS/equiv	None	Moderate OTJ
49-3093	Tire Repairers and Changers	170	\$48,300	10	2.00%	40	HS/equiv	None	Short OTJ
53-6099	Transportation Workers, All Other	140							
49-2091	Avionics Technicians	130	\$91,110	20	20.00%	10	Associate's	None	None

SOC	Occupation	Emp. Statewide (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Job Growth (2020-30)	Total Annual Openings	Education	Work Exp.	Job Training
17-2121	Marine Engineers and Naval Architects	110	\$102,190	0	0.00%	10	Bachelor's	None	None
53-7041	Hoist and Winch Operators	110	\$100,940						
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	80	\$74,410	0	4.7%	10	Bachelor's	None	None
49-3022	Automotive Glass Installers and Repairers	70	\$48,670						
53-5031	Ship Engineers	60	\$110,240	0	11.10%		Postsec	< 5 yrs	None
11-9131	Postmasters and Mail Superintendents	60	\$93,910	0	1.70%		HS/equiv	< 5 yrs	Moderate OTJ
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	40	\$45,130						
17-2112	Industrial Engineers	30	\$99,850	0	7.8%		Bachelor's	None	None
53-7199	Material Moving Workers, All Other	30	\$41,000						

**Table 7: Relevant Transportation Occupations with Median Salary Below ALICE
Individual Survival Budget**

SOC	Occupation	Employment (2024)	Median Wage (2024)	Long-Term Job Growth (2020-30)	Percent Growth (2020-30)	Total Annual Openings	Education	Work Exp.	Job Training
53-6021	Parking Attendants	1,460	\$31,900	630	37.70%	360	None	None	Short OTJ
41-3041	Travel Agents	490	\$32,090	50	9.90%	70	HS/equiv	None	Moderate OTJ
53-7064	Packers and Packagers, Hand	2,280	\$34,150	70	3.40%	280	None	None	Short OTJ
53-7061	Cleaners of Vehicles and Equipment	1,980	\$35,960	360	18.60%	330	None	None	Short OTJ
43-5021	Couriers and Messengers	440	\$37,480	-10	-2.10%	40	HS/equiv	None	Short OTJ
53-7065	Stockers and Order Fillers	8,690	\$38,600	880	12.80%	1,230	HS/equiv	None	Short OTJ

Appendix B: Methodology

Quantitative Data

Labor market data on the Transportation & Warehousing industry and relevant occupations were sourced from the U.S. Bureau of Labor Statistics and HireNet Hawaii (State of Hawai'i Department of Labor & Industrial Relations). AE Consulting identified 68 occupations in Hawai'i that may require transportation-specific skillsets or knowledge. Six of these occupations had a median salary lower than the ALICE survival budget for a single adult in Hawai'i (\$39,384).²¹

A full list of occupations included in the analysis can be found in Appendix A.

Stakeholder Outreach

AE Consulting developed a stakeholder outreach strategy and contact list in collaboration with the Project Team to ensure representation from key employers in the major sub-sectors of water, air, and ground transportation. AE Consulting interviewed a total of 24 employers for this analysis. Interviews focused on employers' top workforce needs, including entry- and mid-level roles, training and skills needed for those in-demand roles, workforce challenges, and strategies/recommendations to enhance workforce development.

²¹ ALICE in Hawai'i: 2024 Facts and Figures, Aloha United Way (2025). https://www.auw.org/wp-content/uploads/2025/01/2024_ALICE-Report_Facts-and-Figures_v-25-01-09.pdf

Appendix C: Primary Data Sources

HireNet Hawaii

Long-term Occupational Projections to 2030 for the State of Hawai'i were sourced from Hawaii Workforce Infonet on [HireNet Hawaii](#).

NOAA Economics: National Ocean Watch (ENOW) Data

[Economics: National Ocean Watch](#) (ENOW) data from the National Oceanic and Atmospheric Administration (NOAA) was used to report on employment volume, GDP, and wages in water transportation in Hawai'i (marine transportation and ship and boat building).

U.S. Bureau of Labor Statistics

[Occupational Employment & Wage Statistics](#) for Hawai'i were sourced from the U.S. Bureau of Labor Statistics.