FAST FACTS

TRANSPORTATION

UA GRADUATES

The University of Alaska has identified 24 programs whose graduates are important to transportation in Alaska. Detailed below are their employment and wage outcomes, plus other information that can be used to assess UA programs and their usefulness to one of the state's key industries.

Graduates from Key UA Programs

Working in Alaska within One Year of Graduating

(Rate | Actual)

MARITIME TECHNICIANS

86.9% | 152

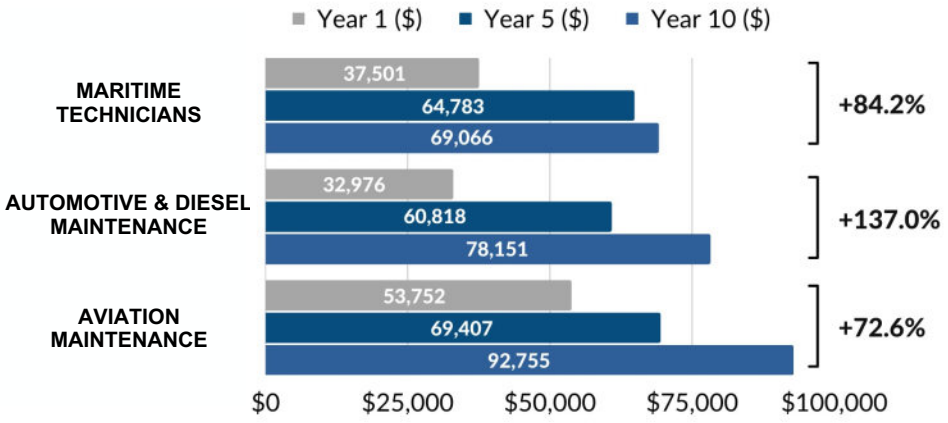
AUTOMOTIVE & DIESEL MAINTENANCE

70.7% | 162

AVIATION MAINTENANCE

75.8% | 248

Wage Growth

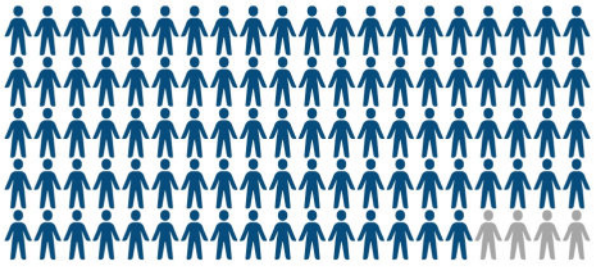


Note: Data reflects the actual employment and wage data of all graduates, and is not limited to those employed in transportation.

UA Programs Boost Alaska's Hire Rate

96.3%

Of Working Graduates are Alaska Residents

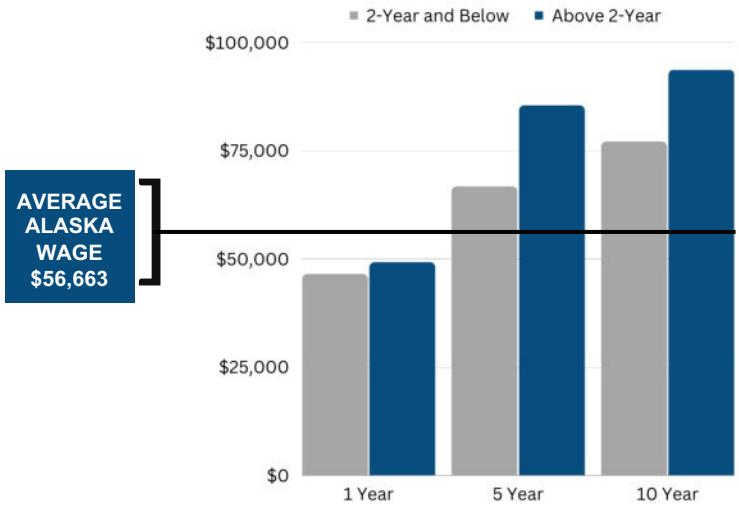


For comparison, residency is...

79.8% for all Alaska Workers

73.9% for all Transportation workers

Program Graduates' Average Wage



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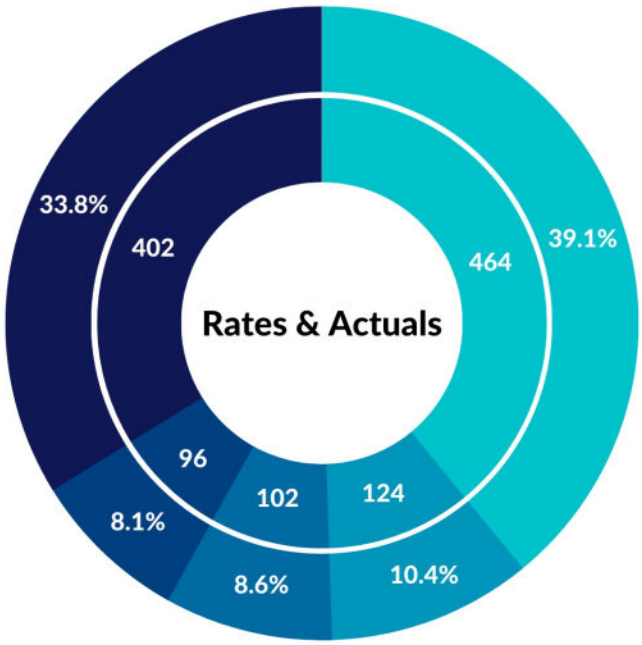
Industries Where First-Year Graduates Work



- Transportation and Warehousing
- Oil, Gas, Mining, and Construction
- Professional Services
- Public Administration
- Other Industries

Over the last three years, the transportation industry hired...

1,816 Airline Pilots, Copilots, and Flight Engineers

1,799 Sailors and Marine Oilers

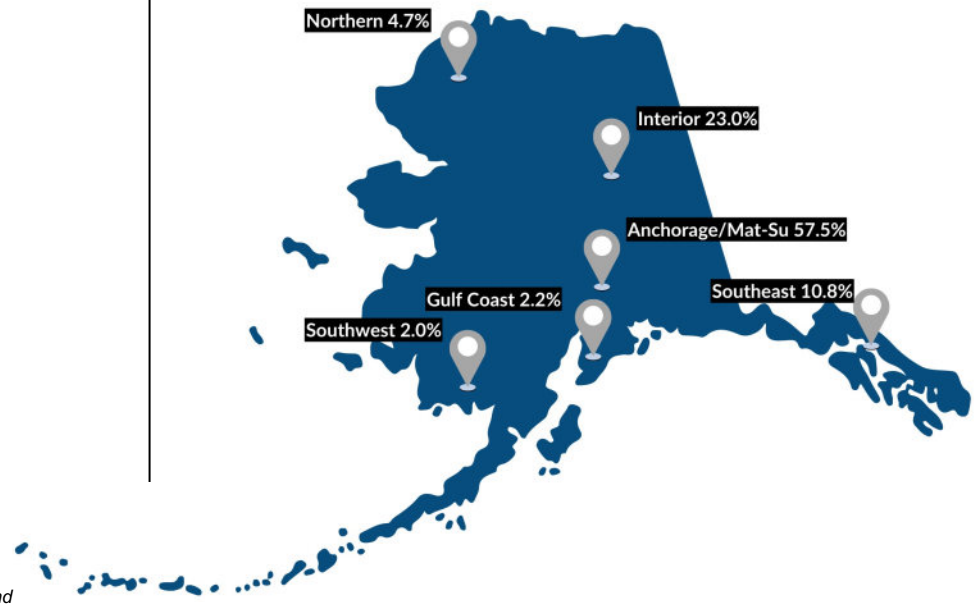
1,592 Heavy and Tractor-Trailer Truck Drivers

1,045 Aircraft Mechanics and Service Technicians

633 Captains, Mates, and Pilots of Water Vessels

Note: These occupations require postsecondary education and include all hires, not just UA grads, to identify greatest demand.

Regions where UA transportation program graduates work



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UA GRADUATES

UNIVERSITY of ALASKA
Many Traditions One Alaska

Programs and the Industry Connection

Education pays — people working jobs in Alaska that require a high school degree earn an average of $44,679 annually, which jumps to $63,883 for jobs that require associate degrees, $86,140 for those that require bachelor degrees, and $102,511 for jobs in Alaska that require graduate or professional degrees.

With more than 570,000 square miles of land — 16 percent of the U.S. total — and nearly 75,000 square miles of water, the transportation sector plays an outsized role in Alaska's economy. The University of Alaska has programs to train workers critical to the state's air, land, and water transportation infrastructure. Programs include training for pilots, air traffic controllers, heavy equipment operators, marine transport workers, and global supply chain managers, among others.

The number of job openings in Alaska has jumped by 40 percent from 2019 to 2022, and spending from the 2021 Infrastructure Act— nearly $3 billion has already been announced so far for Alaska — will make filling high-wage jobs, most of which require postsecondary training or education, even more difficult. The state's ten consecutive years of negative net migration (more people moving out of the state than moving in) creates an additional challenge for Alaska employers looking to fill open positions. These challenges, however, create unprecedented opportunities for Alaska workers, especially those with sought-after education and training credentials.

Attempts to precisely match the supply of graduates with the demand for certain workers by industry would be misguided, but the data shown here are appropriate for general conclusions about the benefits of certain UA programs. More importantly, this information can help facilitate conversations with key industries about how programs could be expanded, changed, or developed to provide them with more and better-trained workers.

Since 2011, 1,521 people have graduated from programs relevant to the state's transportation industry, producing the following outcomes:

Degree Type*	Graduates	% Employed in Alaska within 1 Year	Average First-Year Wage ($)	Average Fifth-Year Wage ($)	Average Tenth-Year Wage ($)
Certificate	603	83.1%	$48,519	$68,199	$75,938
Associate	500	76.8%	$43,794	$65,025	$78,408
Bachelor and Above	418	72.7%	$49,207	$85,390	$93,625

*Certificates (1-2 yrs); Associate Degrees (2 yrs); Bachelor Degrees and Above (4-4+ yrs).

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Questions and Answers

Where do the employment numbers come from?

The University of Alaska and the Alaska Department of Labor and Workforce Development's Research and Analysis Section work together each year to identify where university graduates are working in the state and what their wages are.

The detailed employment and wage information comes from quarterly reports that nearly all Alaska employers are required to file under state unemployment insurance law. Those records do not include federal workers or the self-employed, so university program graduates in those categories are not shown here.

Wages numbers have been annualized and have been inflation adjusted to 2022 wages to make them comparable across the ten-year window of this report. Annualizing wages is a method used to calculate what the wages would be if all workers worked all four quarters in the year.

How were programs & target occupations selected?

The University of Alaska analyzed labor market information to determine the largest and fastest-growing occupations in the transportation industry, then linked programs based on occupations' titles and characteristics. While other UA programs also provide some preparation for transportation jobs, this report excludes general administrative training programs that are useful for all sectors, such as accountants and human resource professionals.

Do graduates work only in the transportation Industry?

No, they work in a variety of industries. Graduates being hired and paid well by employers in any industry indicate successful outcomes for both the program graduates and the Alaska economy.

Can this information be used for program evaluation?

It can inform those types of decisions, as well as decisions about which programs to expand, but there is far more to consider than which programs have the highest earnings or best employment outcomes. Other data such as short-term and long-term industry and occupational projections, enrollment numbers, and tuition and program costs are important, and so are less formal insights and information gathered from industry and other key stakeholders. When making key decisions about university programs, it is also important to consider the most recent developments in the economy that cannot yet be measured.

How long does it take to earn a certificate, associate degree, or bachelor degree?

If a student is attending classes full-time, certificate programs take less than 2 years (often 1 year or less); associate degrees are generally 2 years; bachelor degrees are four years; and advanced degrees are more than 4 years.

Why are the wages for the UAF associate degree graduates and the UAA bachelor degree graduates so similar in the first year after graduation but so different five years after graduation?

The main reason the wage data for some of the programs rise or fall in counterintuitive ways or amounts is because the number of graduates who have been in the workforce for five years is much smaller than the number of graduates who have been in the workforce for one year. Further analysis would almost certainly show that specific graduates' wages grow over time. More detailed examination of the different programs' graduates could also help determine whether graduates from certain programs make consistently more than graduates from others.

Why do a higher percentage of graduates from diesel/heavy equipment and diesel power technology programs find work in Alaska than do graduates of many of the air transportation (pilot and maintenance) programs?

It's likely that the pilot and aviation program graduates are marketable to employers throughout the country to a greater degree than graduates from the land-based transportation programs. Pilots in particular have more freedom than most workers to live in one location and work in another. Remember that the employment outcomes are limited to the work the graduates find with Alaska employers.

Why do graduates from the marine transportation program at UAS have higher wages than graduates from the maritime/multi skilled worker program?

One thing to note is the relatively small number of graduates from both programs. When the number of graduates is small, comparisons are less robust. Otherwise, graduates from the maritime/multi skilled worker program may be more likely to be self-employed, and self-employment income is not captured in these reports. Further analysis would be required to confirm this, but marine transportation certificate program graduates are more likely to work for an employer such as the Alaska Marine Highway or one of the several marine transportation businesses that operate in coastal Alaska communities.

FAST FACTS

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24 Programs Linked to Transportation

Target Occupations	University	Major	Degree	Graduates	% Employed in AK within a year	1st-year average wage	5th-year average wage
Airline/Commercial Pilots, Copilots, Flight Engineers, Aerospace Engineers (53-2011, 53-2012, 17-2011)	UAA	Professional Piloting	Associate of Applied Science	24	66.70%	40,455	*
	UAF	Professional Piloting	Associate of Applied Science	21	47.60%	45,187	39,563
	UAA	Professional Piloting	Bachelor of Science	65	76.90%	44,542	97,016
Aircraft Mechanics & Service and Avionics Technicians (49-3011, 49-2091)	UAA	Aviation Maintenance Technology, Airframe	Certificate	120	75.80%	48,643	73,648
	UAA	Aviation Maintenance Technology, Powerplant	Certificate	110	80.90%	49,483	65,844
	UAF	Airframe and Powerplant	Certificate	153	78.40%	50,184	69,184
	UAA	Aviation Maint Technology	Associate of Applied Science	61	75.40%	54,435	74,132
	UAF	Aviation Maintenance	Associate of Applied Science	54	70.40%	58,529	66,514
Airfield Operations Specialists & Transportation, Storage, and Distribution Managers (53-2022, 11-3071)	UAA	Global Logistics and Supply Chain Management	Bachelor of Business Admin	87	78.20%	53,549	90,839
	UAA	Aeronautical Studies	Bachelor of Science	17	88.20%	47,429	*
	UAA	Aviation Management	Bachelor of Science	169	71.00%	39,395	63,366
	UAA	Global Supply Chain Management	Master of Science	58	70.70%	85,201	108,215
Air Traffic Controllers (53-2021)	UAA	Air Traffic Control	Associate of Applied Science	279	73.80%	30,879	60,502
Heavy and Tractor-Trailer Truck Drivers (53-3032)	UAS	Power Technology	Occupational Endorsement Cert	69	81.20%	51,111	62,979
	UAA	Diesel Power Technology	Certificate	13	92.30%	47,412	*
	UAF	Diesel/Heavy Equipment	Certificate	156	91.00%	50,239	74,624
	UAA	Heavy Duty Trans & Equip	Associate of Applied Science	46	87.00%	55,951	71,701
	UAA	Diesel Power Technology	Associate of Applied Science	31	90.30%	49,340	*
	UAS	Power Technology	Associate of Applied Science	49	83.70%	55,207	79,568
Automobile/Automotive Mechanics Technology/Technician (47-0604)	UAA	Automotive Technology	Associate of Applied Science	82	89.00%	41,819	64,556
	UAA	Automotive Technology	Certificate	21	76.20%	39,148	114,769
	UAF	Automotive Technology	Certificate	81	86.40%	32,041	49,952
Maritime Mechanics and Technicians, Sailors, and Marine Oilers (49-3051, 53-5011)	UAS	Marine Transportation	Occupational Endorsement Cert	33	72.73%	40,958	56,891
	UAS	Maritime/Multi Skilled Worker	Occupational Endorsement Cert	24	66.67%	27,962	*

*Data unavailable. Program has been offered for a limited period of time, or wages are suppressed when fewer than 5 graduates are employed in Alaska.
Note: Graduate numbers are from 2011 through 2021.

This report is a collaboration among UA Workforce Development, UA Data Strategy and Institutional Research, and the Alaska Department of Labor and Workforce Development's Research and Analysis Section. For more information, visit alaska.edu/research/wd/.