

CONSTRUCTION PROGRAMS

UA GRADUATES



The University of Alaska has identified 46 programs whose graduates are important to the construction industry 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)

CARPENTRY

78.7% | 334

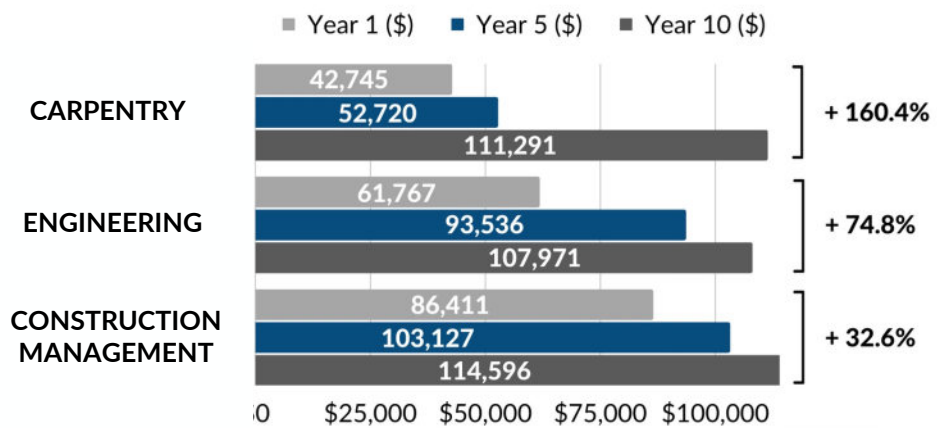
ENGINEERING

73.7% | 1,781

CONSTRUCTION MANAGEMENT

76.7% | 455

Wage Growth

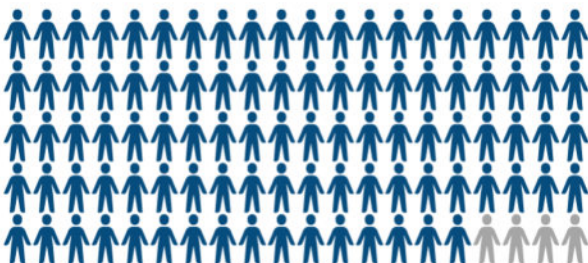


Note: Data reflects the actual employment and wage data of all graduates, and is not limited to those employed in construction.

UA Programs Boost Alaska's Hire Rate

96.2%

Of Working Graduates are Alaska Residents



For comparison, residency is...

79.8% for all Alaska Workers

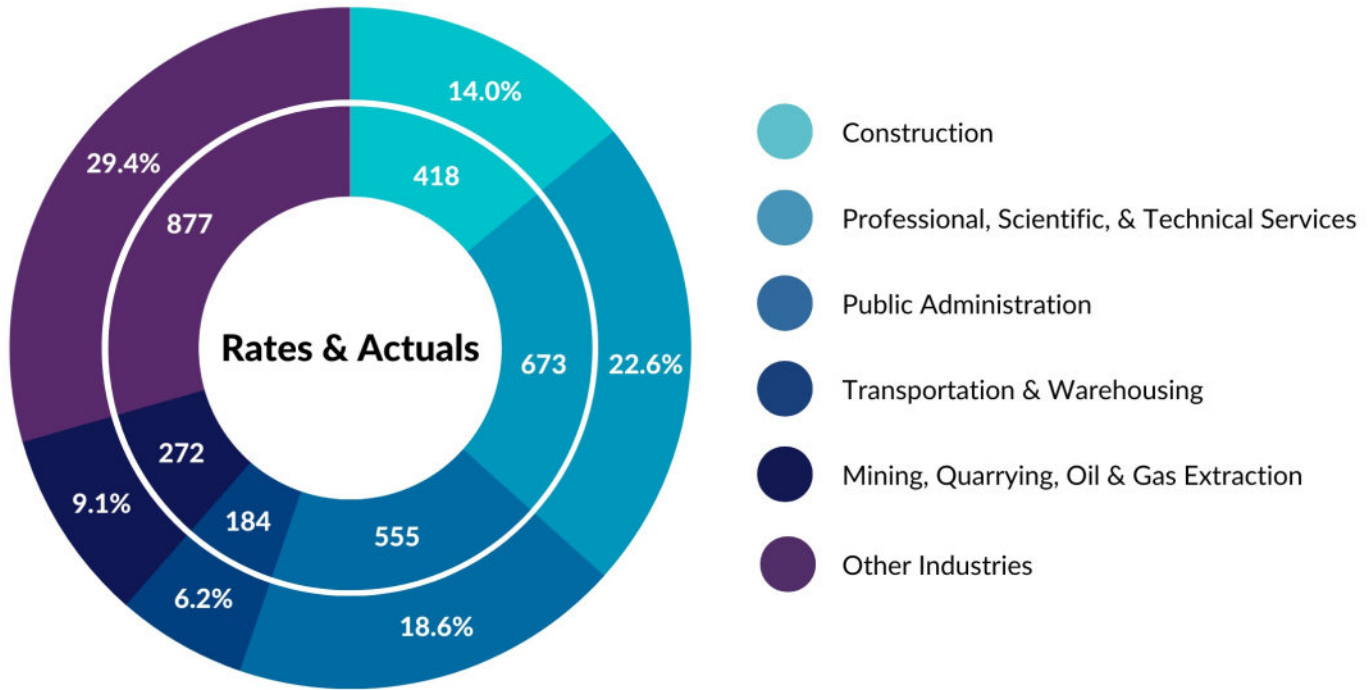
81.4% for all Construction Workers

Program Graduates' Average Wage





Industries Where First-Year Graduates Work



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



1,195

Heavy and Tractor-Trailer Truck Drivers



442

Construction Managers



320

Heating, Air Conditioning, and Refrigeration Mechanics and Installers



278

Telecommunications Equipment Installers, Repairers, except Line Installers

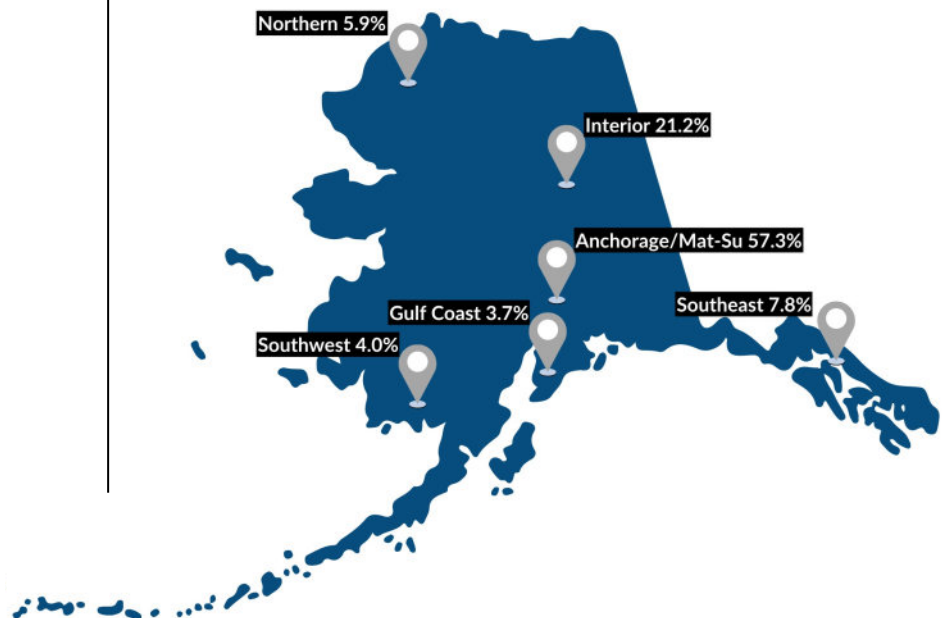


220

Engineers

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

Regions where UA construction program graduates work



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.

Skilled construction workers are critical to building and maintaining Alaska's roads, ports, bridges, and other infrastructure. Growth for construction jobs almost always signals growth for the Alaska economy. The university's construction program graduates work directly in the construction industry as well as in closely related industries such as transportation, architecture, and engineering, among many others. Significant numbers also work in state and local government.

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, 3,837 people have graduated from programs relevant to the state's construction 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	907	82.9%	42,816	58,998	67,590
Associate	624	82.2%	57,558	72,481	82,805
Bachelor and Above	2,306	74.4%	66,831	96,029	110,106

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

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 construction industry, then linked programs based on occupations' titles and characteristics. While other UA programs also provide some preparation for construction 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 construction 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.





46 Programs Linked to Construction

Target Occupations	University	Major	Degree	Graduates	% Employed in AK within a year	1st-year average wage	5th-year average wage
Heavy and Tractor-Trailer Truck Drivers (53-3032)	UAS	Power Technology	Occupational Endorsement Cert	69	81.2%	51,111	62,979
	UAA	Diesel Power Technology	Certificate	13	92.3%	47,412	*
	UAF	Diesel/Heavy Equipment	Certificate	156	91.0%	50,239	74,624
	UAA	Heavy Duty Trans & Equip	Associate of Applied Science	46	87.0%	55,951	71,701
	UAA	Diesel Power Technology	Associate of Applied Science	31	90.3%	49,340	*
	UAS	Power Technology	Associate of Applied Science	49	83.7%	55,207	79,568
Carpenters (47-2031)	UAF	Basic Carpentry	Occupational Endorsement Cert	56	67.9%	15,264	31,811
	UAF	CTT: Facilities Maintenance	Occupational Endorsement Cert	101	90.1%	35,864	40,104
	UAS	Construction Technology	Occupational Endorsement Cert	57	89.5%	28,204	45,977
	UAF	Sustainable Energy	Occupational Endorsement Cert	85	68.2%	46,326	50,728
	UAA	Apprenticeship Technology	Associate of Applied Science	36	83.3%	80,675	100,609
	UAF	Apprenticeship Technology	Associate of Applied Science	13	76.9%	85,493	*
	UAS	Construction Technology	Associate of Applied Science	13	61.5%	52,751	60,525
Construction Managers (11-9021)	UAA	Construction Management	Associate of Applied Science	31	80.7%	67,327	94,307
	UAF	Construction Management	Associate of Applied Science	56	85.7%	67,253	75,563
	UAA	Construction Management	Bachelor of Science	196	82.1%	75,753	94,654
	UAA	Project Management	Master of Science	189	68.8%	106,108	126,838
Civil, Electrical, Geological, Mechanical, and All Other Engineers (17-2051, 17-2071, 17-2151, 17-2141, 17-2199)	UAA	Civil Engineering	Bachelor of Science	317	83.0%	63,188	90,444
	UAF	Civil Engineering	Bachelor of Science	235	87.2%	58,293	84,391
	UAA	Civil Engineering	Master of Science	91	68.1%	73,364	93,616
	UAF	Civil Engineering	Master of Science	36	77.8%	63,665	109,567
	UAA	Electrical Engineering	Bachelor of Science	184	77.7%	65,196	93,530
	UAF	Electrical Engineering	Bachelor of Science	133	72.9%	54,750	96,907
	UAF	Electrical Engineering	Master of Science	45	33.3%	54,091	*
	UAF	Geological Engineering	Bachelor of Science	73	75.3%	56,348	80,354
	UAF	Geological Engineering	Master of Science	15	66.7%	59,054	84,537
	UAA	Mechanical Engineering	Bachelor of Science	370	72.7%	59,697	107,542
	UAF	Mechanical Engineering	Bachelor of Science	314	71.0%	57,800	89,330
	UAA	Mechanical Engineering	Master of Science	10	50.0%	53,908	*
	UAF	Mechanical Engineering	Master of Science	37	51.4%	61,741	100,194
	UAF	Engineering	Doctor of Philosophy	24	41.7%	71,007	*
Sheet Metal Workers and Welders (47-2211, 51-4121)	UAA	Advanced Welding	Occupational Endorsement Cert	34	76.5%	42,561	67,256
	UAA	Nondestructive Testing Tech	Occupational Endorsement Cert	155	87.7%	50,975	76,181
	UAA	Welding	Occupational Endorsement Cert	69	82.6%	44,773	69,097
	UAF	Entry Level Welder	Occupational Endorsement Cert	95	82.1%	38,289	72,245
	UAS	Welding	Occupational Endorsement Cert	125	81.6%	31,553	43,956
	UAA	Welding Technology	Certificate	32	81.3%	43,425	46,468
Civil Engineering Technicians (17-3022, 17-3029)	UAA	Geographic Information Systems	Occupational Endorsement Cert	11	81.8%	53,557	68,337
	UAF	Drafting Technology	Certificate	56	73.2%	36,897	63,945
	UAS	Drafting Technology	Certificate	15	80.0%	45,831	61,305
	UAA	Architectural & Engineering Technology	Associate of Applied Science	117	79.5%	41,730	60,166
Surveyors (17-1022, 17-1021, 17-3031)	UAA	Geomatics	Associate of Applied Science	35	80.0%	67,040	78,051
	UAA	Geomatics	Bachelor of Science	126	78.6%	64,355	81,649
Heating, Air Conditioning, and Refrigeration Mechanics/Installers (49-9021)	UAA	Refrigeration and Heating	Occupational Endorsement Cert	65	81.5%	43,800	66,110
Occupational Safety & Health Specialists & Technicians (29-9011, 29-9012)	UAA	Occupational Safety & Health	Associate of Applied Science	166	84.9%	64,788	72,598
	UAA	Occupational Safety & Health	Bachelor of Science	19	89.5%	62,480	*

*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/.