

THE CONSTRUCTION INDUSTRY AND UA GRADUATES FAST FACTS



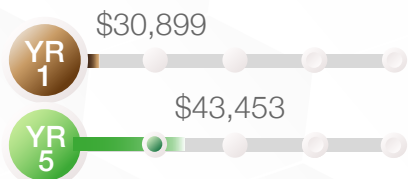
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The University of Alaska has identified 37 programs whose graduates are important to the construction industry in Alaska. Detailed below are their employment and wage outcomes, plus other information that can be used to assess UA programs and their usefulness to one of the state's key industries.

Graduates from key UA programs

CARPENTRY

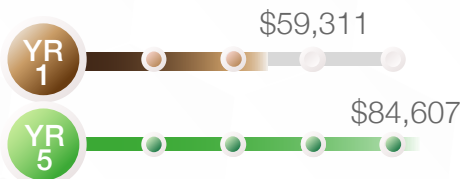
83.7% working in AK within a year of graduating



40.6% wage growth

CIVIL ENGINEERING

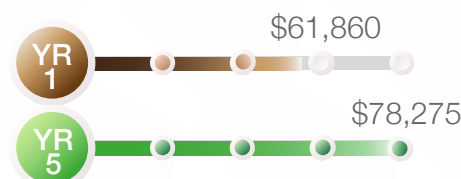
84.8% working in AK within a year of graduating



42.6% wage growth

CONSTRUCTION MANAGEMENT

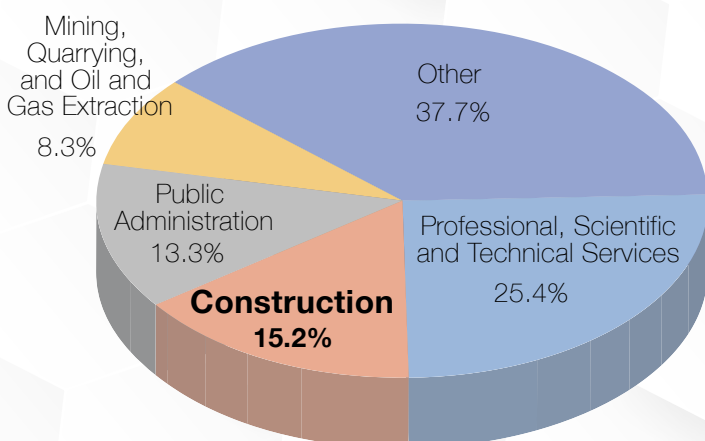
86.4% working in AK within a year of graduating



26.5% wage growth

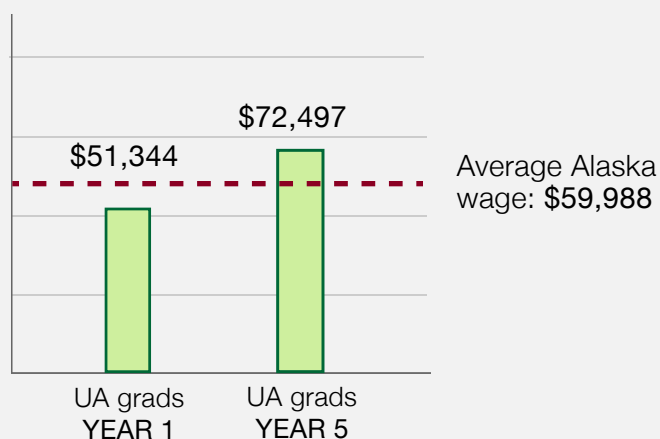
Note: Data reflects the actual employment and wage data of all graduates, and is not limited to those employed in construction

The industries where first-year graduates work



Note: Graduates of all 37 key UA programs

Program grads' average wages



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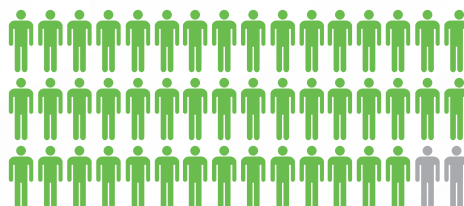


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Do these programs boost the Alaska hire rate?

96.7%

of working graduates
are Alaska residents



For comparison, residency is ...

- 79.3% for all Alaska workers
- 83.0% for all construction workers

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

807 Heavy/Tractor Truck Drivers

492 Construction Managers

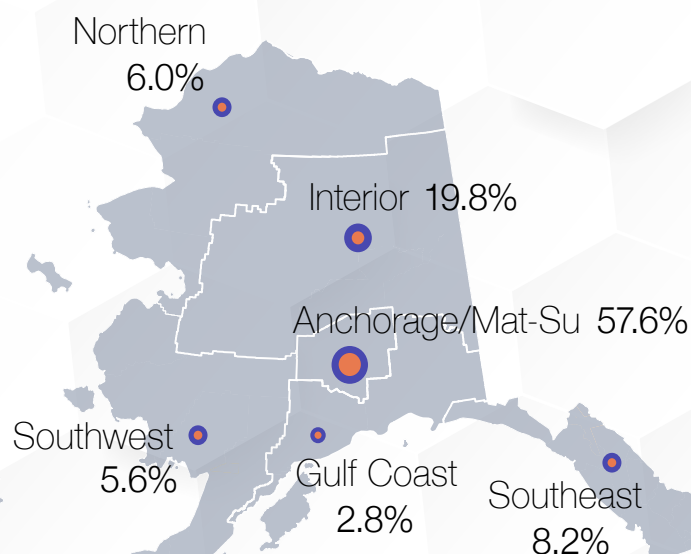
344 Heating/Air Conditioning/
Refrigeration Mechanics

205 General/Operations Managers

174 Telecommunications Equipment
Installers and Repairers*

* Does not include Line Installers

Where do UA's construction program grads work?



Notes: These occupations have had the most hires in the past three years among occupations that require postsecondary education. Hires include all hires, not just UA grads, to identify where demand is greatest.

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More information on programs and the industry connection

The economic value of training and education is abundantly clear in the relevant data. Median earnings, for example, jump from \$35,328 for high school graduates to \$44,619 for Alaskans with an associate degree, \$57,708 for those with a bachelor's degree, and \$77,402 for holders of graduate or professional degrees. More education and training also correlate strongly with lower unemployment rates.

The University of Alaska, in an effort to highlight and enhance the relationship between its programs and key Alaska industries, has prepared data on the 37 programs that are particularly relevant to the state's construction industry. These include 19 that result in a certificate or occupational endorsement, 11 that result in an associate degree, and 7 that result in a bachelor's degree.

Over the last 10 years, 1,968 people have graduated from those programs with the following outcomes by degree type:

- **Licenses and Certificates:** 607 graduates, 503 employed in Alaska within a year of graduating with average first-year wages of \$40,371 and average fifth-year wages of \$52,505
- **Associate Degrees:** 463 graduates, 378 employed in Alaska within a year of graduating with average first-year wages of \$45,841 and average fifth-year wages of \$62,437
- **Bachelor's Degrees and Above:** 898 graduates, 752 employed in Alaska within a year of graduating with average first-year wages of \$61,837 and average fifth-year wages of \$84,409

Three types of programs account for the largest share (52 percent) of graduates and warrant special mention:

- **Carpentry** (two certificates at UAF, one certificate and one associate at UAS): 202 graduates, 169 employed in Alaska within a year of graduating with average first-year wages of \$30,899 and average fifth-year wages of \$43,453
- **Civil Engineering** (one bachelor and two masters at UAA, one bachelor and one master at UAF): 594 graduates, 504 employed in Alaska within a year of graduating with average first-year wages of \$59,311 and average fifth-year wages of \$84,607
- **Construction Management** (one associate and one bachelor at UAA, one associate at UAF): 235 graduates, 203 employed in Alaska within a year of graduating with average first-year wages of \$61,860 and average fifth-year wages of \$78,275

The relationship between UA programs and hiring in construction

Construction is critical to building and maintaining Alaska's spread out infrastructure. It is also considered an indicator of growth when other industries need construction in order to expand or if more residents need homes to live in. While only 15% of the university's construction program graduates work directly in the construction industry, just over a quarter of graduates also work in closely related industries such as architecture and engineering.

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.

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Related questions and answers

Q: 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 have worked together for years to identify where university graduates are working in the state.

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

Q: How were the programs and 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 37 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.

Q: What percentage of Construction hires are UA grads?

Those types of questions can be answered only for specific program graduates or specific industry occupations, based on the long-running collaboration between the University of Alaska and the Department of Labor and Workforce Development. It's less useful to lump all the programs and degree types together.

Q: 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's 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 will also be important to consider the most recent developments in the economy that can't yet be measured.

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The 37 programs linked to construction

Target occupations	University	Major	Degree	Graduates	Employed in AK within a year	1st-year avg wage	5th-year avg wage
Heavy and Tractor-Trailer Truck Drivers (53-3032)	UAS	Power Technology	Occupational Endorsement Cert	17*	15	\$55,839	-
	UAA	Heavy Duty Trans & Equip	Certificate	28	22	\$47,447	\$55,523
	UAA	Heavy Duty Trans & Equip	Associate of Applied Science	25	23	\$48,642	\$76,193
	UAA	Diesel Power Technology	Associate of Applied Science	3*	3	-	-
	UAS	Power Technology	Associate of Applied Science	39	34	\$50,475	\$64,727
Carpenters (47-2031)	UAF	Basic Carpentry	Occupational Endorsement Cert	53*	37	\$19,057	-
	UAF	CTT: Facilities Maintenance	Occupational Endorsement Cert	77*	71	\$33,094	-
	UAS	Construction Technology	Occupational Endorsement Cert	58*	52	\$30,153	\$40,077
	UAS	Construction Technology	Associate of Applied Science	14	9	\$45,153	-
Construction Managers (11-9021)	UAA	Construction Management	Associate of Applied Science	31	27	\$50,682	\$72,956
	UAF	Construction Management	Associate of Applied Science	55*	48	\$57,178	\$65,284
	UAA	Construction Management	Bachelor of Science	149*	128	\$66,258	\$85,526
Civil Engineers (17-2051)	UAA	Civil Engineering	Bachelor of Science	298	259	\$59,197	\$84,269
	UAF	Civil Engineering	Bachelor of Science	203	175	\$56,690	\$82,648
	UAA	Civil Engineering	Master of Civil Engineering	17*	13	\$83,539	-
	UAA	Civil Engineering	Master of Science	48*	36	\$59,893	\$70,948
	UAF	Civil Engineering	Master of Science	28*	21	\$61,778	\$100,343
Sheet Metal Workers and Welders (47-2211, 51-4121)	UAA	Advanced Welding	Occupational Endorsement Cert	27*	21	\$42,597	-
	UAA	Nondestructive Testing Tech	Occupational Endorsement Cert	52*	47	\$52,773	-
	UAA	Welding	Occupational Endorsement Cert	52*	44	\$42,540	-
	UAF	Entry Level Welder	Occupational Endorsement Cert	87*	70	\$39,551	\$64,225
	UAS	Welding	Occupational Endorsement Cert	62*	49	\$35,868	-
	UAA	Welding Technology	Certificate	30*	22	\$47,878	\$50,476
	UAA	Weld & Nondestruct Test Tech	Associate of Applied Science	77*	67	\$46,429	\$74,149
Civil Engineering Technicians (17-3022, 17-3029)	UAA	Architectural Technology	Certificate	6*	6	\$38,143	-
	UAA	Civil Technology	Certificate	2*	2	-	-
	UAA	Mech & Electrical Technology	Certificate	2*	2	-	-
	UAA	Structural Technology	Certificate	2*	2	-	-
	UAF	Drafting Technology	Certificate	25	18	\$39,062	\$53,203
	UAA	Archit & Engr Technology	Associate of Applied Science	127	93	\$35,183	\$52,293
	UAF	Drafting Technology	Associate of Applied Science	22*	17	\$35,252	-
Surveyors, Cartographers, and Photogrammetrists (17-1022, 17-1021, 17-3031)	UAA	Geomatics	Associate of Applied Science	32	28	\$55,518	\$71,155
	UAA	Geomatics	Bachelor of Science	96	75	\$59,811	\$75,397
Heating, Air Conditioning, and Refrigeration Mechanics/Installers (49-9021)	UAA	Residential Air Cond & Ref	Occupational Endorsement Cert	2*	2	-	\$86,910
	UAA	Residential Heat/Vent	Occupational Endorsement Cert	2*	2	-	-
	UAA	Refrig & Heat Technology	Certificate	23	19	\$44,634	\$59,084
	UAA	Refrig & Heat Technology	Associate of Applied Science	38	29	\$41,086	\$58,878

*Program had not yet existed for 10 years

Note: Graduate numbers are for 2009 through 2018. When wages aren't shown for a program, it's because it had too few graduates.