

The University of Alaska has identified 14 programs whose graduates are important to the IT 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

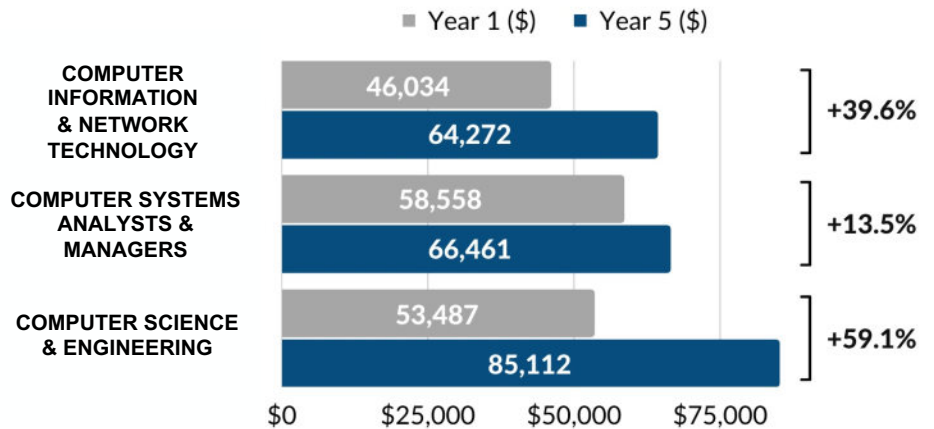
(Rate | Actual)

COMPUTER INFORMATION & NETWORK TECHNOLOGY
79.4% | 297

COMPUTER SYSTEMS ANALYSTS & MANAGERS
66.9% | 261

COMPUTER SCIENCE & ENGINEERING
69.8% | 512

Wage Growth

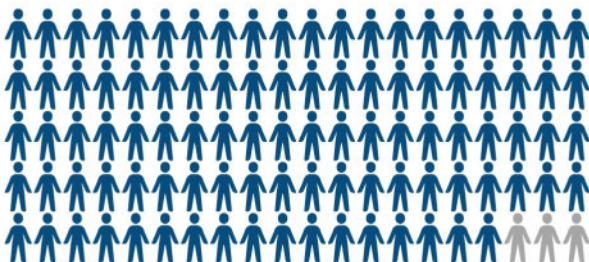


Note: Data reflects the actual employment and wage data of all graduates, and is not limited to those employed in IT.

UA Programs Boost Alaska's Hire Rate

96.8%

Of Working Graduates are Alaska Residents

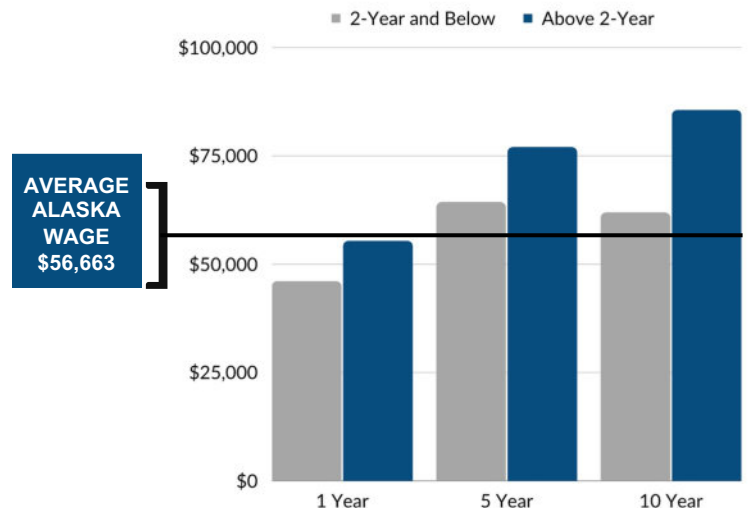


For comparison, residency is...

79.8% for all Alaska Workers

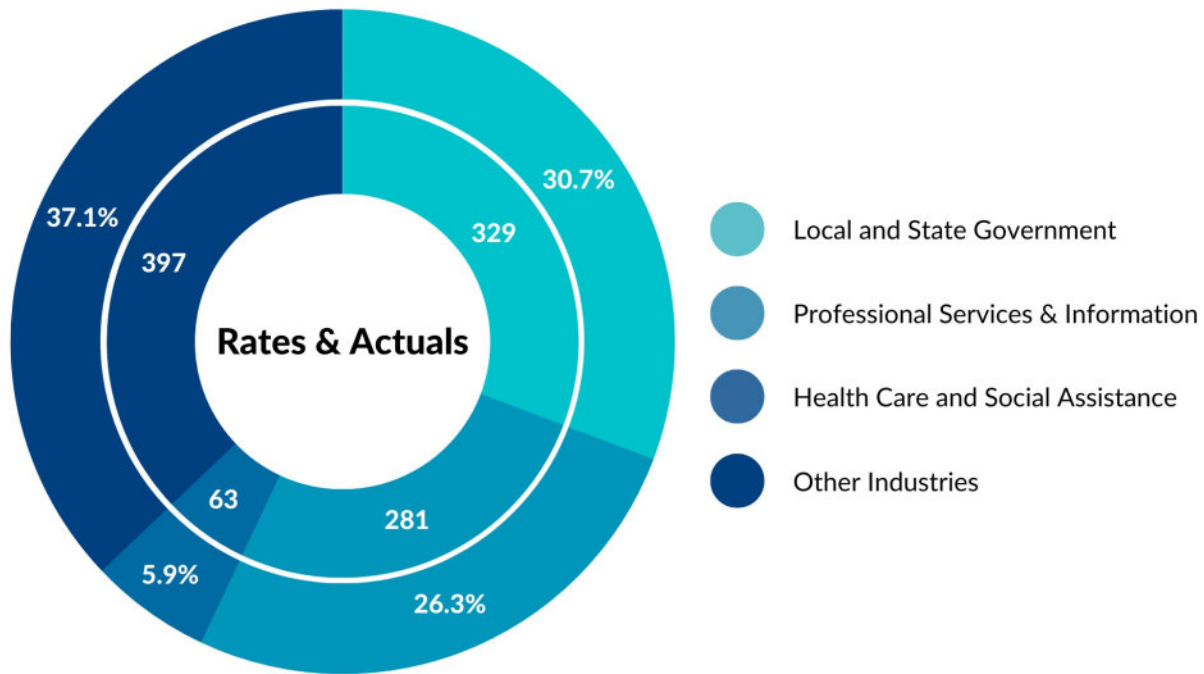
80.9% for all IT Workers

Program Graduates' Average Wage

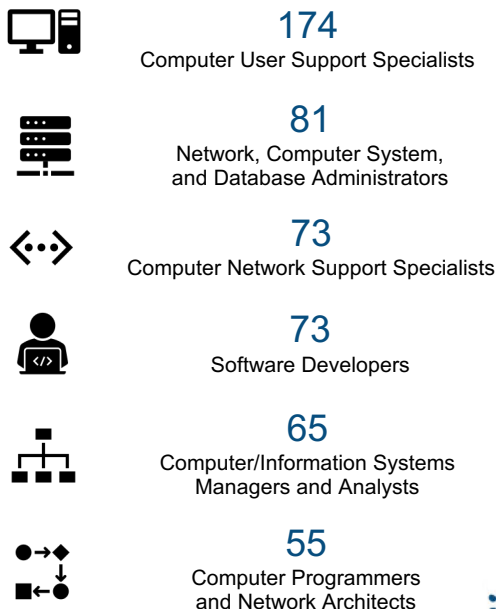




Industries Where First-Year Graduates Work



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



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

Regions where UA IT 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.

Graduates from IT programs find work in a range of private sector industries as well as in the public sector. About 30 percent of the graduates found work in state or local government and another 26 percent in either companies categorized in either Professional, Scientific, and Technical Services or Information.

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, 1,498 people have graduated from programs relevant to the state's IT 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	75	76.0%	\$42,022	\$66,331	\$47,882
Associate	299	80.3%	\$46,989	\$63,591	\$69,067
Bachelor and Above	1,124	68.8%	\$55,328	\$76,959	\$85,490

*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 IT industry, then linked programs based on occupations' titles and characteristics. While other UA programs also provide some preparation for IT jobs, this report excludes general administrative training programs that are useful for all sectors, such as accountants and human resource professionals.

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.

Do graduates work only in the IT 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.

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 shown in some cases lower than what other published data show for average starting salaries in IT occupations?

Remember that all the wage data shown here are for what the graduates are actually making in whatever jobs they take in Alaska. Some of them may choose jobs in occupations that pay less than they could make. Others may only work part-time. Both types of wage data are relevant — salaries in the occupations for which program graduates would qualify and the graduates' actual wages in whatever jobs they end up taking — but the main objective here is to connect the graduates to their actual workforce outcomes rather than to their reasonably assumed, but hypothetical outcomes.

Why does it look like some of the graduates make less money ten years after graduating than they made five years after graduating?

The number of graduates included in the fifth-year and tenth-year wage calculations gets progressively smaller because the only graduates in the 10-year wage group are those who graduated in 2011 or 2012; later graduates haven't been out long enough to have 10-year wages. For example, of the 75 certificate graduates shown in the table on page 3, all 75 had first-year wages, 37 had fifth-year wages, and only six had tenth-year wages. When the number of graduates gets that small, the average wages are especially prone to being influenced by one or two unusually high or low numbers. Keep in mind that the six graduates with wages 10 years after graduation are a small percentage — about one sixth — of the number for which fifth-year wages are calculated.



14 Programs Linked to IT

Target Occupations	University	Major	Degree	Graduates	Employed in AK within a year	1st-year average wage	5th-year average wage
Software Developers and Programmers & Hardware Engineers (15-1132, 15-1133, 15-1131, 17-2061)	UAA	Computer Science	Bachelor of Arts	21	76.2%	49,094	*
	UAA	Computer Science	Bachelor of Science	156	75.6%	46,062	70,431
	UAA	Computer Systems Engineering	Bachelor of Science	49	73.5%	49,925	68,567
	UAF	Computer Engineering	Bachelor of Science	21	52.4%	46,066	72,243
	UAF	Computer Science	Bachelor of Science	131	64.1%	39,840	62,862
	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	Computer Science	Master of Science	36	75.0%	48,867	74,741
	UAF	Electrical Engineering	Master of Science	45	33.3%	54,091	*
Computer Systems Analysts and Managers (15-1121, 11-3021)	UAS	Management Information Systems	Bachelor of Business Admin	395	67.1%	58,720	65,800
Network and Computer Systems Administrators and User Support Specialists (15-1142, 15-1151, 15-1152)	UAA	Cisco Cert Network Associate	Occupational Endorsement Cert	129	81.4%	36,600	59,579
	UAF	Info Technology Specialist	Certificate	24	66.7%	43,845	67,323
	UAA	Computer Systems and Network Technology	Associate of Applied Science	189	79.9%	44,417	62,424
	UAF	Info Technology Specialist	Associate of Applied Science	116	80.2%	50,993	63,391

*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/.