FISHERIES AND MARINE SCIENCE AND UA GRADUATES

FAST FACTS

UNIVERSITY of ALASKA
Many Traditions One Alaska

The University of Alaska has identified 21 programs whose graduates are important to fisheries and marine science 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

FISHERIES TECH

72.2% working in AK within a year of graduating

YR 1 $35,675

YR 5

Not yet available. See page 4 for more information.

FISHERIES

67.8% working in AK within a year of graduating

YR 1 $39,993

YR 5 $53,394

33.5% wage growth

MARINE BIOLOGY

76.7% working in AK within a year of graduating

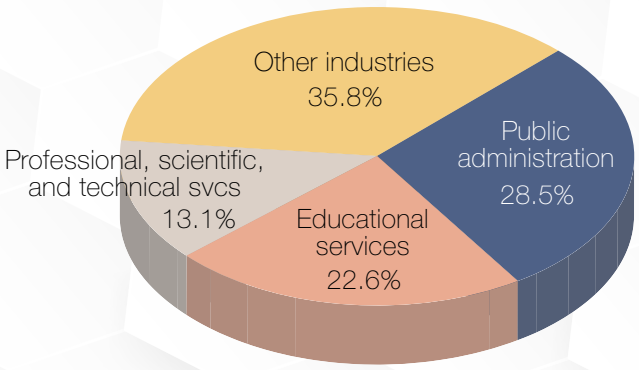
YR 1 $37,083

YR 5 $50,206

35.4% wage growth

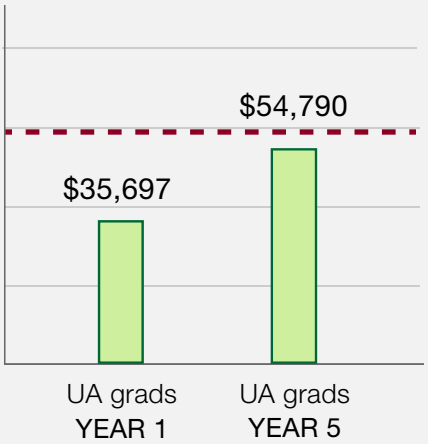
Note: Employment and wage data not limited to graduates who work in fisheries and marine science

The industries where first-year graduates work



Note: Graduates of all 21 key UA programs

Program grads' average wages



Average Alaska wage: **$59,988**

Note: For graduates of 21 key UA programs

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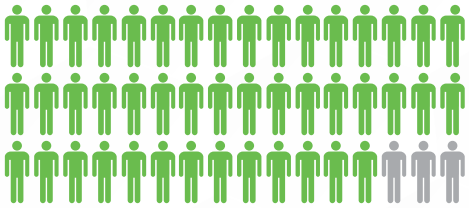
Do these programs boost the Alaska hire rate?

94.1%
of working graduates are Alaska residents



For comparison, residency is ...

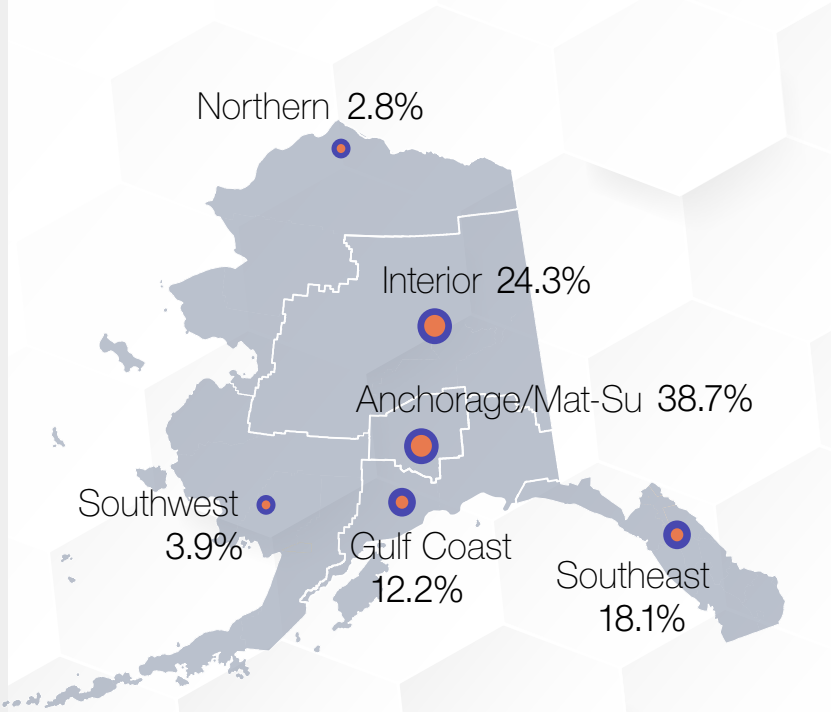
- **79.3%** for all Alaska workers
- **66.3%** for all workers in fisheries and marine science

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

- **1,375** Life, Phys, Soc Science Techs
- **633** Biological Technicians
- **620** Environmental Sci/Specs
- **425** Zoologists/Wildlife Biologists
- **302** Forest/Conservation Techs
- **110** Life Scientists

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.

Where do UA's fisheries and marine science grads work?



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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 prepared data on the 21 programs that are particularly relevant to fisheries and marine science in Alaska. These include two that result in a certificate or licensure, one that results in an associate degree, and 18 that result in a bachelor's degree or above.

Over the last 10 years, 975 people have graduated from those programs with the following outcomes by degree type:

- **Licenses and Certificates:** 43 graduates, 32 employed in Alaska within a year of graduating, with average first-year wages of $36,925
- **Associate Degrees:** 29 graduates, 20 employed in Alaska within a year of graduating, with average first-year wages of $33,695
- **Bachelor's Degrees and Above:** 903 graduates, 644 employed in Alaska within a year of graduating, with average first-year wages of $35,758 and average fifth-year wages of $56,463

Three types of programs account for the largest share of graduates (41 percent) and warrant special mention:

- **Fisheries Technology** (two certificates and one associate at UAS): 72 graduates, 52 employed in Alaska within a year of graduating, with average first-year wages of $35,675
- **Fisheries** (two bachelors, one master, and one doctorate program at UAF: 208 graduates, 141 employed in Alaska within a year of graduating, with average first-year wages of $39,993 and average fifth-year wages of $53,394
- **Marine Biology** (one master's and one doctorate at UAF, one bachelor's at UAS): 120 graduates, 92 employed in Alaska within a year of graduating, with average first-year wages of $37,083 and average fifth-year wages of $50,206

The relationship between UA programs and hiring in fisheries and marine science

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 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: Why are fifth-year average wages unavailable for fisheries technology?

Although the first group of fisheries technology students graduated in 2009, there weren't enough graduates in the early years to meet the confidentiality threshold for reporting wages.

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 informal 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.

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 https://www.alaska.edu/research/wd/.

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The 21 programs linked to fisheries and marine science

Target occupations	University	Major	Degree	Gradu-ates	Employed in AK within a year	1st-year avg wage	5th-year avg wage
Zoologists, Wildlife Biologists, Conservation Scientists, and Fish/Game Wardens (19-1023, 19-1031, 33-3031)	UAS	Fisheries Technology	Occupational Endorsement Cert	26*	18	$39,447	-
	UAS	Fisheries Technology	Certificate	17*	14	$32,600	-
	UAS	Fisheries Technology	Associate of Applied Science	29*	20	$33,695	-
	UAF	Fisheries	Bachelor of Arts	16*	13	$39,835	-
	UAF	Fisheries	Bachelor of Science	56*	52	$32,555	$49,408
	UAF	Fisheries	Master of Science	98	62	$41,465	$53,983
	UAF	Fisheries	Doctor of Philosophy	38*	14	$57,192	$59,796
	UAS	Marine Biology	Bachelor of Science	58	51	$29,869	$52,788
	UAF	Marine Biology	Master of Science	40	27	$37,064	$49,180
	UAF	Marine Biology	Doctor of Philosophy	22*	14	$59,676	-
	UAF	Earth Science	Bachelor of Arts	19*	15	$22,914	$53,197
	UAA	Natural Sciences	Bachelor of Science	297	221	$32,520	$57,845
	UAF	Natural Resources Management	Bachelor of Science	78	55	$28,272	$45,707
	UAF	Natural Res Mgmt & Geography	Masters of Nat Res Mgmt Geog	13*	9	$43,473	-
	UAF	Natural Resources Management	Master of Natural Resource Mgt	3*	3	-	-
	UAF	Natural Resources Management	Master of Science	47*	29	$41,742	$63,068
	UAF	Natural Res. & Sustainability	Doctor of Philosophy	13*	11	$46,238	-
	UAF	Oceanography	Master of Science	14	9	-	-
	UAF	Oceanography	Doctor of Philosophy	11	6	$63,909	-
	UAF	Wildlife Biol & Conservation	Bachelor of Science	55*	40	$25,385	-
	UAF	Wildlife Biol & Conservation	Master of Science	25*	13	$34,800	-

*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.