

2021 Technical Vocational Education Program



UNIVERSITY
of ALASKA

Many Traditions One Alaska



The Alaska legislature established the Technical Vocational Education Program (TVEP) in 2000 from a portion of the Unemployment Insurance receipts. The program is administered by the Alaska Workforce Investment Board and provides grants to career and technical education providers for training and education that lead to high-demand occupations.

FY20 TVEP Recipients & Outcomes

SFY 2020 TVEP Allocations	% of TVEP Allocation	Grant Amount	# of Adult Students Served	# of High School Students Served	Total # of Students
Alaska Vocational Technical Center (AVTEC)	17%	\$2,124,000	1,184	67	1,251
Alaska Technical Center (ATC)	9%	\$1,123,800	307	256	563
Amundsen Educational Center	2%	\$249,700	11	10	21
Galena Interior Learning Academy	4%	\$499,500	0	233	233
Illisagvik College	5%	\$624,400	821	13	834
Northwestern Alaska Career and Technical Center (NACTEC)	3%	\$374,600	31	107	138
Partners for Progress in Delta, Inc.	3%	\$374,600	604	294	898
Southwest Alaska Vocational and Education Center (SAVEC)	3%	\$374,600	182	2	184
Yuut Elitnaurviat, Inc. (People's Learning Center)	9%	\$1,123,800	740	74	814
University of Alaska	45%	\$5,619,300	3,574	746	4,320
Totals	100%	\$12,488,300	7,454	1,802	9,256

UA TVEP Investment Strategies

- The Technical Vocational Education Program (TVEP), at the University of Alaska (UA), provides grants across the state for industry-specific, on-the-job, and classroom training, impacting thousands of students.
- Industry advisory committees guide the university programs to ensure they meet current employer requirements and assist graduates of both credit and non-credit programs to gain employment upon successful completion.
- UA manages its TVEP funds as a single allocation for one-time capital funding to upgrade technology, labs, and equipment, to initiate or expand high-demand workforce programs, and startup of new initiatives. The funding must meet the following criteria:
 - High-demand and or regional workforce needs
 - Increased access and flexibility of training delivery
 - Improved persistence of educational progress
 - Promote collaboration within and outside the UA System by expanding partnerships

UA TVEP
Supports
Alaska's
High-Demand
Industries



Aviation



Construction



Health



IT



Maritime



Mining



Oil & Gas

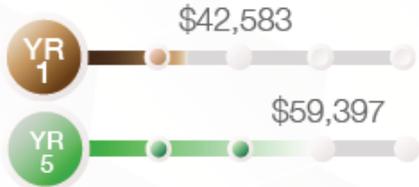
INDUSTRY OVERVIEW

- Approximately 82% of Alaskan communities are not served by roads and rely heavily on aviation as a primary source of transportation and to access goods and services.¹
- Alaska has an annual gap of 275 available professional pilots and more than 120 aircraft mechanics.²

GRADUATES FROM KEY UA PROGRAMS³

Aviation Maintenance

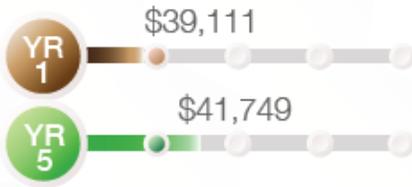
74.4% working in AK within a year of graduating



39.5% wage growth

Piloting

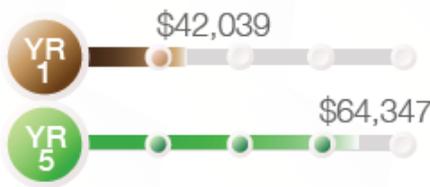
66.7% working in AK within a year of graduating



6.7% wage growth

Aviation Administration

72.1% working in AK within a year of graduating



53.1 % wage growth

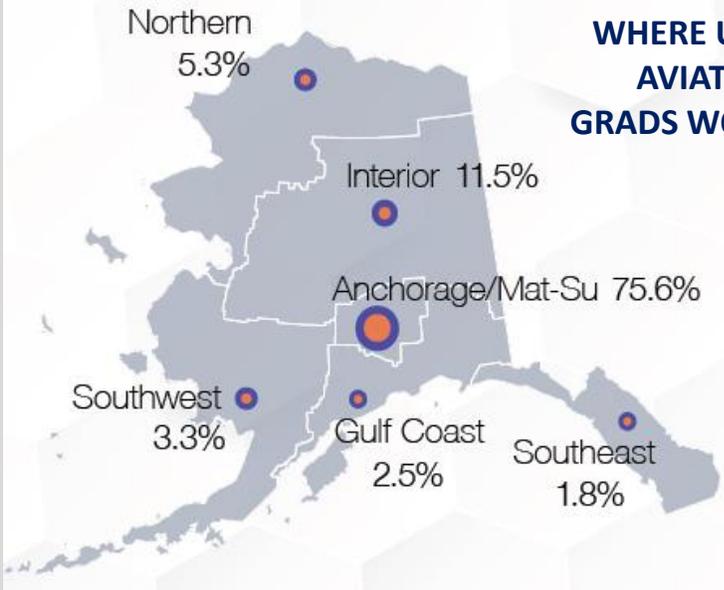
Note: Data reflects the actual employment and wage data of all graduates, and is not limited to those employed in aviation

TVEP FY20 HIGHLIGHTS

\$256.5K*

- Upgraded radar simulator and related equipment to meet FAA standards and better prepare students for air traffic control employment
- Upgraded aircraft avionics equipment to improve multi-engine flight training and to comply with FAA requirements
- Developed an online Aviation Maintenance Technology program in response to Alaska Air Carriers Association

WHERE UA'S AVIATION GRADS WORK



¹Alaska Department of Transportation and Public Facilities: <http://dot.alaska.gov/stwdav/>

²Labor Market Information provided by Emsi: <https://www.economicmodeling.com/>

³Employment data provided by the Alaska Department of Labor and Workforce Development's Research and Analysis Section

*TVEP is one of several funding sources that supports UA aviation programs

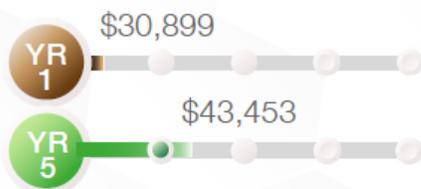
INDUSTRY OVERVIEW

- In 2018, Alaska's construction industry directly employed 23,600 workers who earned a total of \$2.2 billion in labor income. Including multiplier effects, statewide construction industry-related employment totaled 41,300 jobs, representing 9% of Alaska's employment.¹
- In the long-term, the Dept. of Labor and Workforce Development projects construction employment will end up slightly above its pre-recession levels, with the industry adding 616 jobs (21.7 percent).²

GRADUATES FROM KEY UA PROGRAMS³

Carpentry

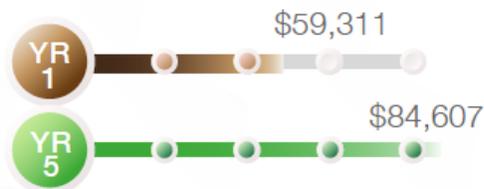
83.7% working in AK within a year of graduating



40.6% wage growth

Civil Engineering

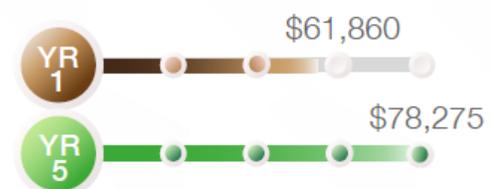
84.8% working in AK within a year of graduating



42.6% wage growth

Construction Management

86.4% working in AK within a year of graduating



26.5% wage growth

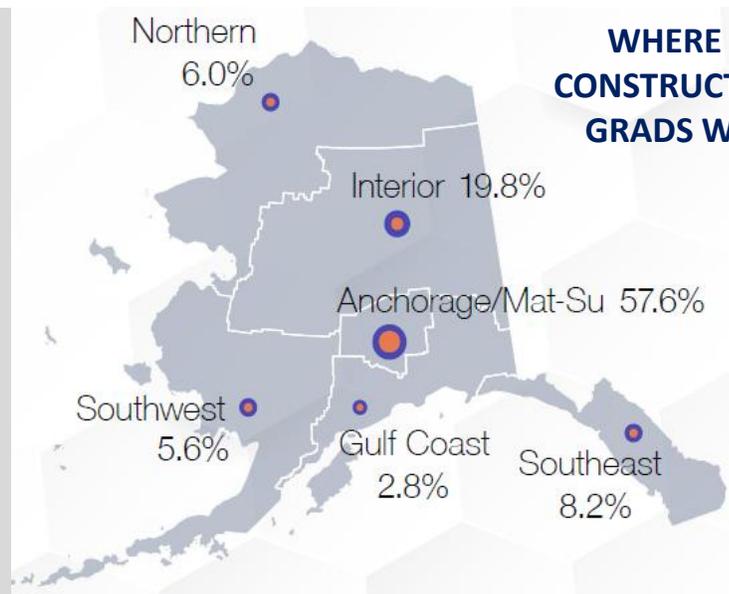
Note: Data reflects the actual employment and wage data of all graduates, and is not limited to those employed in construction

TVEP FY20 HIGHLIGHTS

\$460K*

- Equipment and technology upgrades for state-of-the-art training
- Updated the UAA AAS in Apprenticeship Technology to be available online, increasing access across the state and created a pathway into the BS in Applied Technologies Leadership
- Support for the UAS Construction Technology program to provide hands-on residential construction training to secondary and postsecondary students in partnership with the Juneau School District and Housing Trust

WHERE UA'S CONSTRUCTION GRADS WORK



¹The Economic Benefits of Alaska's Construction Industry prepared by McDowell Group

²Alaska Economic Trends – October 2020, Alaska Department of Labor and Workforce Development Research and Analysis

³Employment data provided by the Alaska Department of Labor and Workforce Development's Research and Analysis Section

*TVEP is one of several funding sources that supports UA construction programs

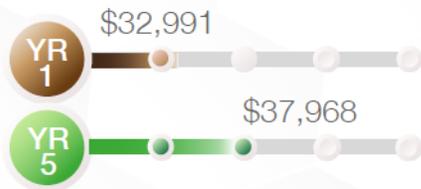
INDUSTRY OVERVIEW

- Health care is set to grow at twice the rate of the economy overall and strong growth is projected through 2028 with the addition of 5,049 jobs.¹
- Fifteen of the 25 occupations with the highest projected percent growth in Alaska are health care practitioners or technicians, and five are in health care support.²

GRADUATES FROM KEY UA PROGRAMS³

Certified Nurse Aide

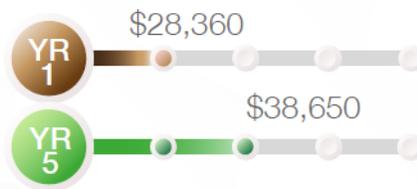
93.5% working in AK within a year of graduating



15.1% wage growth

Dental Assistant

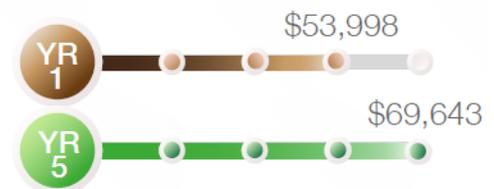
81.9% working in AK within a year of graduating



36.3% wage growth

Nursing

88.7% working in AK within a year of graduating



29.0% wage growth

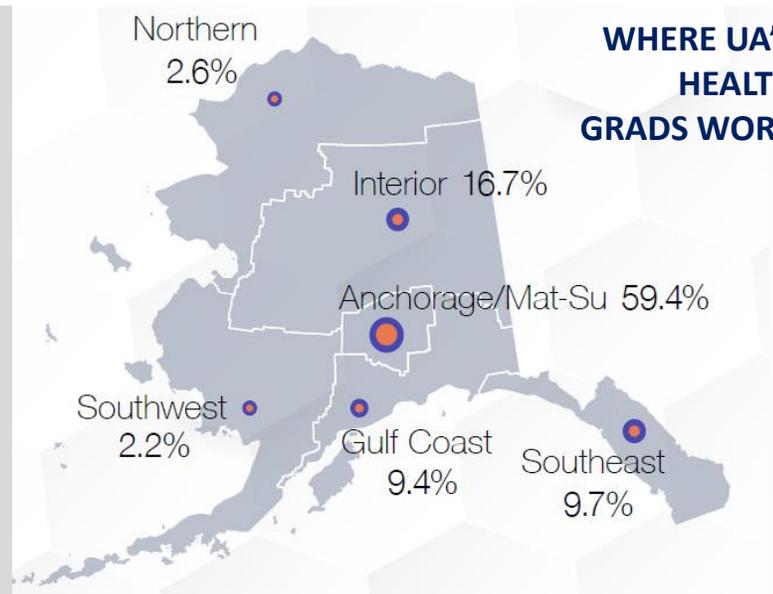
Note: Data reflects the actual employment and wage data of all graduates, and is not limited to those employed in clinical health

TVEP FY20 HIGHLIGHTS

\$1.77M*

- State-of-the-art simulators and instructional technology that is shared across health programs
- High-demand health program development and/or expansion in both urban and rural communities
- Student-centered advising, tutoring, and summer bridge programs focused on promoting student success and increasing diversity in order to meet the growing demand for health care providers

WHERE UA'S HEALTH GRADS WORK



¹Alaska Economic Trends – October 2020, Alaska Department of Labor and Workforce Development Research and Analysis

²Occupation Projections: Most High-Growth Jobs will be in Health Care for 2016-2026 By Paul Martz, Alaska Economic Trends October 2018

³Employment data provided by the Alaska Department of Labor and Workforce Development's Research and Analysis Section

*TVEP is one of several funding sources that supports UA health programs

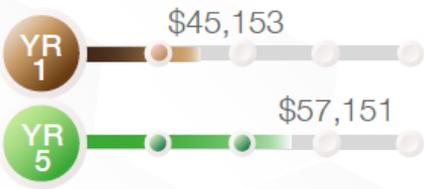
INDUSTRY OVERVIEW

- Software developers and related IT applications are projected to grow by fourteen percent by 2028 and are among the top twenty-five highest growth occupations in the state.¹
- Alaska has an annual workforce gap of 101 software developers, 67 computer systems analysts and managers, 82 network and computer systems administrators, and 59 computers support specialists.²

GRADUATES FROM KEY UA PROGRAMS³

Information Technology

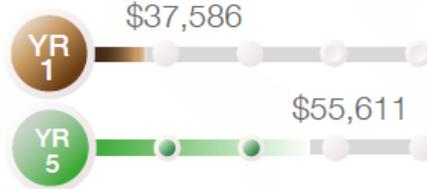
77.1% working in AK within a year of graduating



26.6% wage growth

Computer & Networking Tech

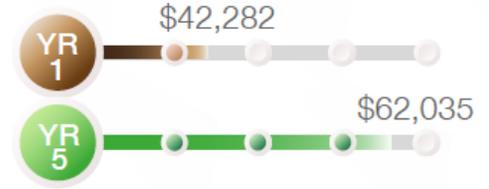
80.2% working in AK within a year of graduating



48.0% wage growth

Computer Science & Engineering

72.3% working in AK within a year of graduating



46.7% wage growth

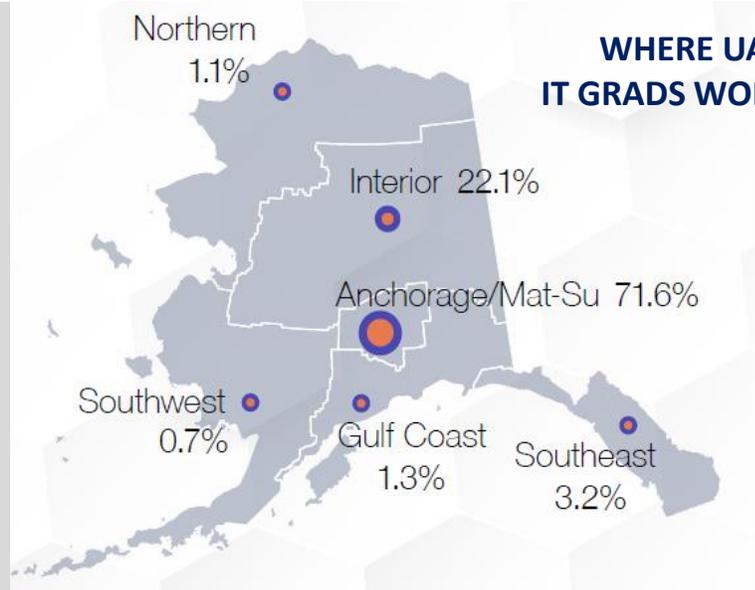
Note: Data reflects the actual employment and wage data of all graduates working in Alaska, and is not limited to those employed in IT

TVEP FY20 HIGHLIGHTS

\$113K*

- Computer lab upgrades to provide 48 Mat-Su College students 24/7 remote access to complete their computer systems technology requirements, gain experience, and expedite their transition to employment
- Development of new curriculum in IT security and cloud computer – two of in-demand IT skillsets
- Online and face-to-face delivery of cybersecurity and advanced networking classes

WHERE UA'S IT GRADS WORK



¹Alaska Economic Trends – October 2020, Alaska Department of Labor and Workforce Development Research and Analysis

²Labor Market Information provided by Emsi: <https://www.economicmodeling.com/>

³Employment data provided by the Alaska Department of Labor and Workforce Development's Research and Analysis Section

*TVEP is one of several funding sources that supports UA information technology programs

INDUSTRY OVERVIEW

Alaska’s maritime sector is the largest employer in the state with over 70,000 jobs. The waters surrounding Alaska produce over 60% of the nation’s seafood harvest at over \$5.9B in wholesale value. Our state is highly dependent on shipping for food and other goods, and exports of oil, seafood and minerals. Alaska welcomes over a million visitors on cruise ships, supports fishing charters, provides travel on the Alaska Marine Highway System, and its waters support a vibrant subsistence economy.¹

GRADUATES FROM KEY UA PROGRAMS²

Fish Tech

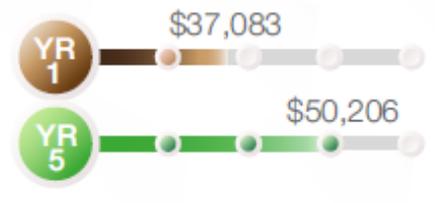
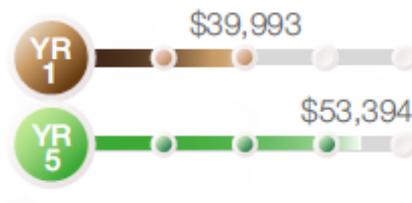
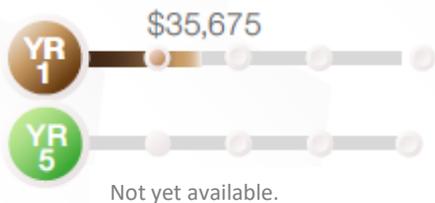
Fisheries

Marine Biology

72.2% working in AK within a year of graduating

67.8% working in AK within a year of graduating

76.7% working in AK within a year of graduating



33.5% wage growth

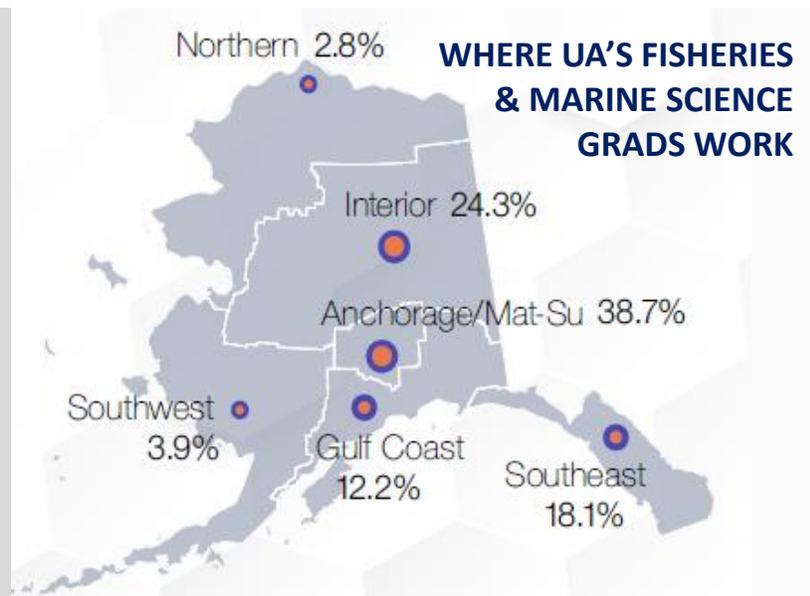
35.4% wage growth

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

TVEP FY20 HIGHLIGHTS

\$676K*

- Delivered seafood processing training to more than 100 students who obtained employment with Alaska’s largest private-sector employers
- Developed and expanded maritime programs to align industry recognized standards in Ketchikan, Dillingham, Kodiak, Valdez, and Homer to address the workforce needs in coastal communities
- Equipment and technology upgrades at the UAS Ketchikan Maritime Center enhanced delivery of U.S. Coast Guard recognized training to more than 200 students



¹Developing Alaska’s Maritime Workforce – <http://labor.alaska.gov/maritimeplan/>

²Employment data provided by the Alaska Department of Labor and Workforce Development’s Research and Analysis Section

*TVEP is one of several funding sources that supports UA maritime programs

INDUSTRY OVERVIEW

- The mining sector is projected to grow by 28 percent, adding 784 jobs by 2028.¹
- In 2020, Alaska's mining industry provided: 4,700 direct mining jobs in Alaska (9,600 including indirect jobs); \$890 million in total direct and indirect payroll; \$175 million in payments to Alaska Native corporations; \$117 million in state government-related revenues; \$49 million in local government revenue; jobs for residents in more than 90 communities throughout Alaska and in rural areas where few jobs are available; and some of Alaska's highest paying jobs with an estimated annual wage of \$115K.²

GRADUATES FROM KEY UA PROGRAMS³

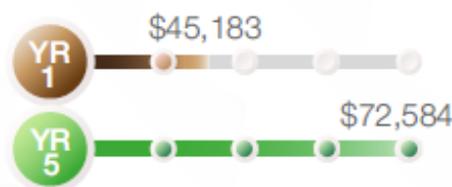
Mining Operator

86.8% working in AK within a year of graduating



Power Technology

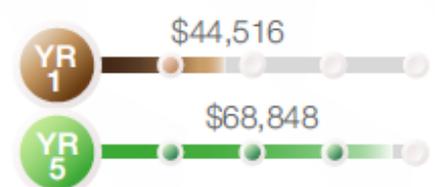
89.6% working in AK within a year of graduating



60.6% wage growth

Geological Sciences

63.4% working in AK within a year of graduating



54.7% wage growth

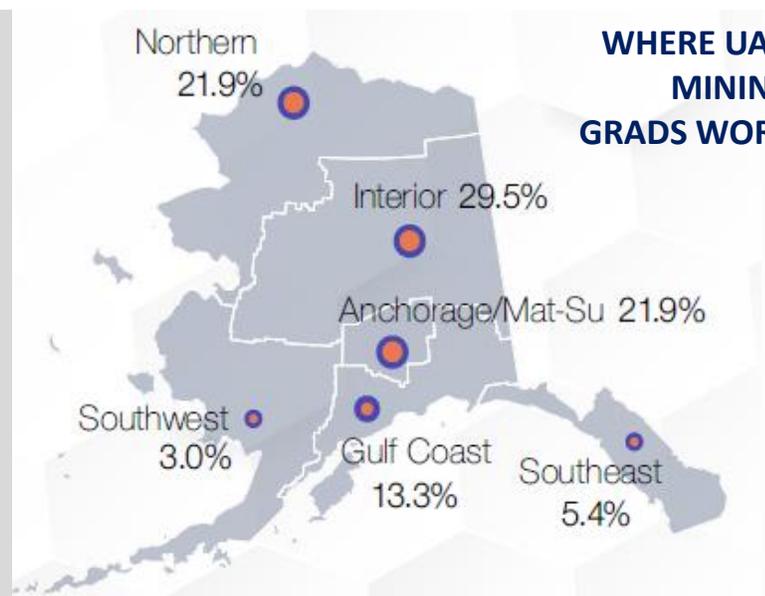
Note: Employment and wage data not limited to graduates who work in mining

TVEP FY20 HIGHLIGHTS

\$368K*

- UAF Mining and Petroleum Training Service (MAPTS) delivery of hard skills mine training camps to over 50 students annually at the only all-encompassing underground and surface mine training camp in the world
- Equipment and technology upgrades to provide state-of-the-art training
- Alignment of welding programs across campuses to enhance delivery, increase flexibility, and provide skills for employment

WHERE UA'S MINING GRADS WORK



¹Alaska Economic Trends – October 2020, Alaska Department of Labor and Workforce Development Research and Analysis

²Alaska Miners Association – Economic Benefits: <http://www.alaskaminers.org/economic-benefits>

³Employment data provided by the Alaska Department of Labor and Workforce Development's Research and Analysis Section

*TVEP is one of several funding sources that supports UA mining programs

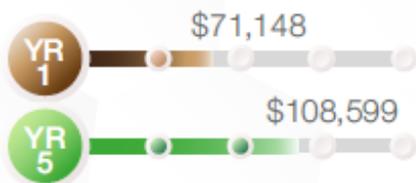
INDUSTRY OVERVIEW

Following the state recession, oil and gas employment improved slightly in 2019 and while the pandemic has slowed some of that progress the industry is projected to rebound in the long run with nine percent growth for oil and gas support activities and 35.8 percent for drilling oil and gas wells by 2028.¹

GRADUATES FROM KEY UA PROGRAMS²

Engineering

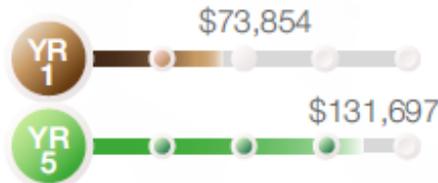
67% working in AK within a year of graduating



52.6% wage growth

Process Tech

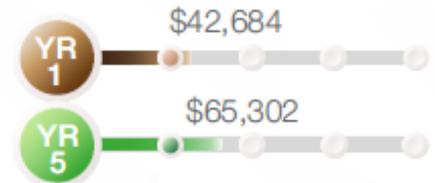
89% working in AK within a year of graduating



78.3% wage growth

Welding

82% working in AK within a year of graduating



53.0% wage growth

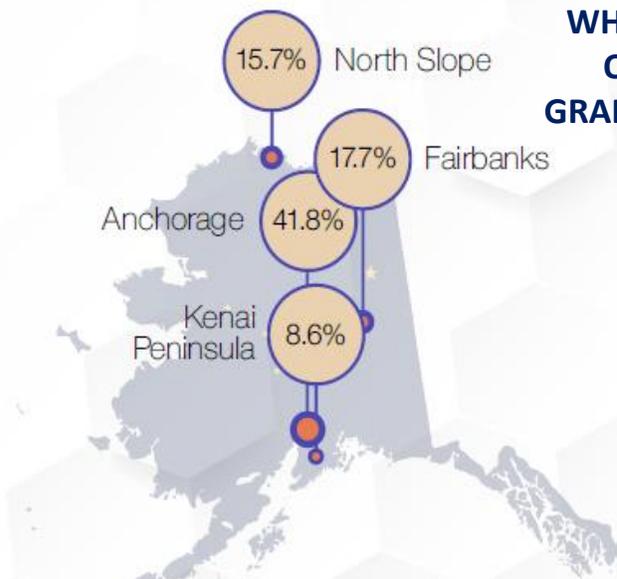
Note: Employment and wage data not limited to graduates who work in the oil and gas industry

TVEP FY20 HIGHLIGHTS

\$787.7K*

- Expanded access to quality fabrication, manufacturing, and 3D printing to more than 50 engineering students
- Leased space at the Fairbanks Pipeline Training Center to provide students hands-on experience on full-scale industrial process equipment
- Delivered well control training to over 300 participants to meet international mandates that prevent blowouts during drilling and promote safe drilling practices

WHERE UA'S OIL & GAS GRADS WORK



¹Alaska Economic Trends – October 2020, Alaska Department of Labor and Workforce Development Research and Analysis

²Employment data provided by the Alaska Department of Labor and Workforce Development's Research and Analysis Section

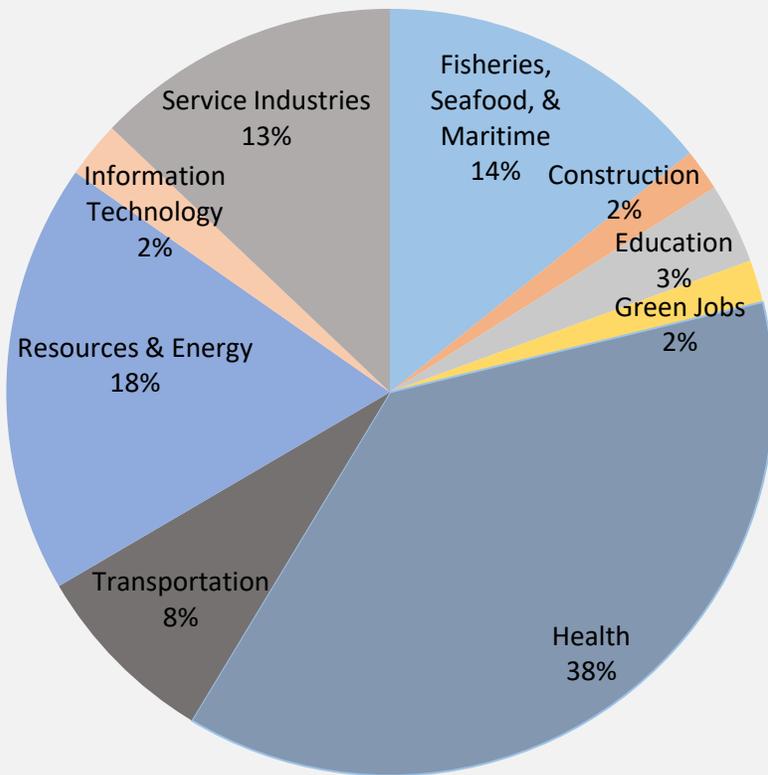
*TVEP is one of several funding sources that supports UA oil and gas programs



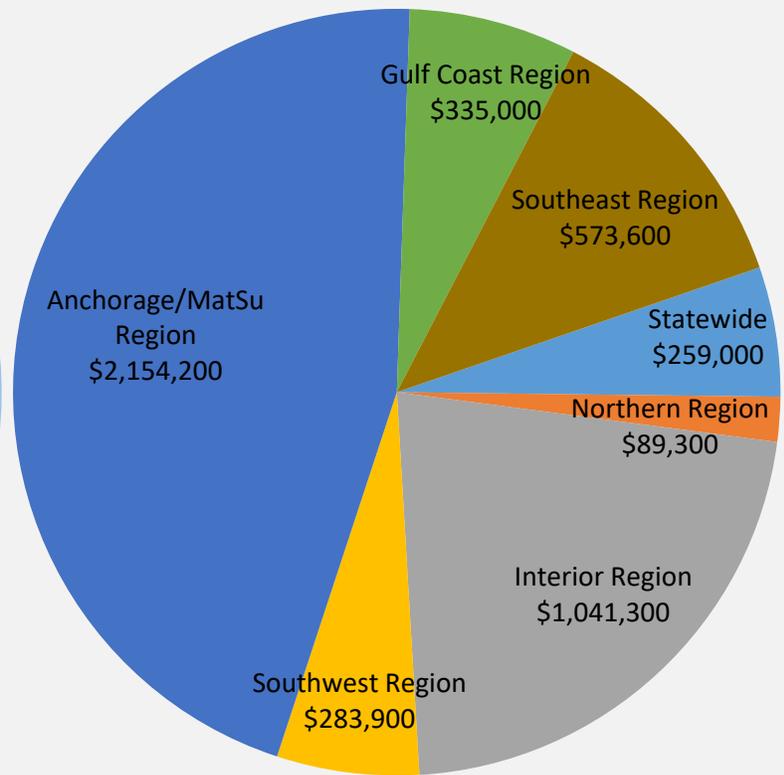
UNIVERSITY
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Many Traditions One Alaska

**UA TVEP Supports
High Priority Industries
FY 2020**



**UA TVEP Supports
Alaska Economic Regions
FY 2020**



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