

# 2020 Technical Vocational Education Program



UNIVERSITY  
*of* ALASKA  

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*Many Traditions One Alaska*



## TVEP Program Overview

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.

### FY19 TVEP Recipients & Outcomes

SFY 2019 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%	\$1,861,100	1,493	124	1,617
Alaska Technical Center (ATC)	9%	\$985,300	293	100	393
Amundsen Educational Center	2%	\$218,900	10	0	10
Galena Interior Learning Academy	4%	\$437,900	0	260	260
Ilisagvik College	5%	\$547,400	1,116	23	1,139
Northwestern Alaska Career and Technical Center (NACTEC)	3%	\$328,400	41	181	222
Partners for Progress in Delta, Inc.	3%	\$328,400	864	491	1,355
Southwest Alaska Vocational and Education Center (SAVEC)	3%	\$328,400	316	4	324
Yuut Elitnaurviat, Inc. (People's Learning Center)	9%	\$985,900	1,002	339	1,341
<b>University of Alaska</b>	<b>45%</b>	<b>\$4,926,400</b>	<b>4,216</b>	<b>276</b>	<b>4,492</b>
<b>Totals</b>	<b>100%</b>	<b>\$10,948,100</b>	<b>9,351</b>	<b>1,798</b>	<b>11,153</b>

## UA TVEP Program Overview

- 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**



**Oil & Gas**



**Mining**



**Health Sciences**



**Aviation**



**Maritime**

## INDUSTRY OVERVIEW

Despite a dip in oil prices (averaging \$65 per barrel in 2019 versus \$71 the year before), the oil industry is expected to continue growing, adding 400 jobs in 2020 after gaining 300 last year<sup>1</sup>

### TIME PERIOD



### TVEP INVESTMENT



### COMPLETERS/GRADUATES



Engineering, non-destructive testing, OSH, process tech, welding, & well control programs

## INVESTMENTS

- Expand access to quality fabrication, manufacturing, and 3D printing to 50+ engineering students per year
- Improve welding program alignment across campuses, focused on skills required to gain employment
- Develop and deliver BS degree in Occupational Safety & Health at UAA; first graduates in 2019
- Lease of shops and classrooms at the Fairbanks Pipeline Training Center, providing students the opportunity to work on full-scale industrial process equipment through the UAF Process Technology program
- UAF Mining and Petroleum Training Service Well Control training to meet international mandates that prevent blowouts during drilling and promote safe drilling practices with a student pass rate of 98%

## PARTNERSHIPS

- "Through Alaska Process Industry Careers Consortium's (APICC) mission for workforce development and strong alignment with industry, hundreds of Alaskans have found exciting careers within the process industries. As part of Alaska's workforce for 33 years, it has been a rewarding experience to see the growth, linkage and development of our universities and educational providers, as well as the output of high quality graduates that fuel our industries." *Dale Kruger, GPB Operations Manager, BP Alaska (retired)*
- Each year the Prototyping Center at UAA provides lab access to students in other UAA departments, external clients, and over 600 K-12 students through BP Summer Engineering Academies
- UAF Process Technology program partners with the Rural Alaska Honors Institute, Fairbanks North Star Borough School District, home schools, and Fairbanks Pipeline Training Center to offer dual credit classes to Alaska high school juniors and seniors and expand their awareness of industrial careers

## STUDENT SUCCESS

### UAF Process Technology Student Ryan McCarty:

As a journeyman carpenter, Ryan was looking to change careers and interested in becoming a process operator. After completing his first two semesters in the program Ryan interned over the summer with Alyeska at Pump Station 9, gaining valuable experience. During his third semester, Ryan applied and was hired by Petro Star at their new Fairbanks fuel terminal. He will be graduating with a Process Technology A.A.S. degree spring 2020 while already working in the industry.



<sup>1</sup>Alaska Economic Trends – January 2020, Alaska Department of Labor and Workforce Development Research and Analysis

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

## INDUSTRY OVERVIEW

- There are 100 additional jobs forecast for mining over the next year and as existing mines operate and expand, a number of new projects around the state are possible<sup>1</sup>
- In 2018, Alaska’s mining industry provided: 4,500 direct mining jobs in Alaska; \$715 million in total direct and indirect payroll; \$358 million in payments to Alaska Native corporations; \$149 million in state government-related revenues; jobs for residents in more than 60 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 \$102K<sup>2</sup>



## INVESTMENTS

- UAF Mining and Petroleum Training Service (MAPTS) delivers hard skills mine training camps at the only all-encompassing underground and surface mine training camp in the world and the program provides a semi-skilled workforce ready for direct employment, averaging 50-60 newly employed Alaskans annually with starting salaries exceeding \$72K per year
- Expansion of dual enrollment opportunities through the millwright program at UAA Prince William Sound College in partnership with Valdez High School to meet local demand and expansion of the program to leverage resources and partner on delivery with other campuses across the state

## PARTNERSHIPS

- “MAPTS is a critical heavy equipment operator program that will provide employment opportunities for Alaskans so we are able to hire within the United States. Donlin Gold believes the MAPTS mining program is critical to our success in hiring a trained workforce.” *Meg Smith, Human Resources Manager for Donlin Gold*
- PWSC Millwright Program partners with industry advisory committee members, such as Pogo Mine and Alyeska Pipeline Services Company, to provide guest instruction, donate equipment, and share facilities for students to obtain instruction on current industry equipment

## STUDENT SUCCESS

### UAF Underground Mine Training Camp Graduate Nikola Maccabee:

Following graduation from Anchorage School District’s King Tech High in 2019, Nikola attended the underground mine training camp after an industry partner recommended it to have access to employment and a well-paying job in a short period of time. He did well at the training and was offered a job at Pogo Mine the day he graduated. Nikola went to work two weeks later, is earning a good wage, and performing well.



<sup>1</sup>Alaska Economic Trends – January 2020, Alaska Department of Labor and Workforce Development Research and Analysis

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

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

## INDUSTRY OVERVIEW

- Health care, historically a major source of growth, is forecasted to add 400 jobs in Alaska during 2020<sup>1</sup>
- 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<sup>2</sup>



## INVESTMENTS

- 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
- Pre-medicine degree programs designed to qualify Alaskans to pursue medical and physician assistant degrees, as well as graduate studies in pharmacy, physical therapy, occupational therapy

## PARTNERSHIPS

- "It was clearly shown that UA has taken great strides to build community partners and ensure the success of expanding nursing education." *Wendy Smith, Norton Sound Health Center*
- Hospitals and care facilities provide access for students to complete required clinical hours
- Local fire departments, emergency management services, and other health care providers utilize UA campus lab space and simulation equipment for training and professional development to maintain certifications
- Secondary partners provide dual credit for high school students to increase awareness and access to health care pathways

## STUDENT SUCCESS

### UAA Nursing Science Graduate Whitney Dahl:

"I am so grateful to have the opportunity to be an Area Health Education Center (AHEC) scholar while in nursing school. Without AHEC, I would not have been able to complete rotations in the YK Delta and Norton Sound Regions. When I worked at Norton Sound Regional Hospital in Nome for my senior practicum, the nurses encouraged me to gain more experience in the city before moving to a smaller village. I am currently employed at Alaska Regional Hospital while my husband, who is also an AHEC scholar, is finishing his degree. We hope to live in a small Alaskan community and work as nurses once we both have a solid foundation of skills."



<sup>1</sup>Alaska Economic Trends – January 2020, Alaska Department of Labor and Workforce Development Research and Analysis

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

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

## 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<sup>1</sup>
- Alaska has an annual gap of 275 available professional pilots and more than 120 aircraft mechanics<sup>2</sup>

### TIME PERIOD



### TVEP INVESTMENT



### GRADUATES



Aviation maintenance & professional piloting programs

## INVESTMENTS

- Airplanes, equipment, and technology upgrades for state-of-the-art training
- Flight simulator for students to gain virtual knowledge and skills in preparation for flight training, leading to a pilot license
- Distance delivered instructional technology for aviation maintenance apprenticeships

## PARTNERSHIPS

- Horizon Air and Ravn Air Group provide tuition assistance and employ university students as pilots while they are completing their education
- Northwestern Alaska Career and Technical Center offers dual enrollment courses in aviation maintenance through UAF Community and Technical College using a plane donated by Bering Air Inc.
- Alaska Air Carriers Association provides student scholarships, and is partnering with the university to develop an aviation maintenance apprenticeship program

## STUDENT SUCCESS

### UAA Aviation Maintenance Technology Graduate Sarah Snell:

"I definitely came to Alaska to go to UAA. I sought out the certification program to get the ratings to continue my career as a combination unit — as a person who could fix and fly," said Snell. "Another good quality of going to UAA is that it's a school the local air operators like. In my case, a major cargo airline in Anchorage was willing to take me on as an apprentice line mechanic while I was attending classes because they knew I was in that certification program."



Right out of UAA, Snell immediately started working as a fixed-wing pilot and mechanic across the state — from providing bear viewing tours for Smokey Bay Air in Homer to transporting cargo and passengers for Hageland Aviation Services throughout the Yukon–Kuskokwim Delta.

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

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

\*TVEP is one of several funding sources that supports UA aviation 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.<sup>1</sup>



## INVESTMENTS

- Maritime program development and expansion that align to industry recognized standards in Ketchikan, Dillingham, Kodiak, Valdez, and Homer to help meet the workforce needs along Alaska’s coastline
- Career awareness resources to connect students with maritime occupations and available training
- Equipment and technology upgrades for the recently renovated UAS Ketchikan Maritime Center, and support to maintain U.S. Coast Guard recognized training
- Portable maritime training to expand access

## PARTNERSHIPS

- UA and the Department of Labor and Workforce Development, through the Alaska Vocational Technical Center, are collaborating to develop Alaska’s maritime workforce while pursuing a domestic maritime centers of excellence designation through the federal Department of Transportation Marine Administration
- Recognizing that ninety percent of boats are built by Alaska Boat & Yacht Council (ABYC) standards, UA campuses are aligning and developing maritime curriculum to ABYC industry standards
- Collaborating with industry partners, Maritime Works, to develop career awareness flyers and webpages for the 23-priority occupations listed in the Alaska Maritime Workforce Development Plan

## STUDENT SUCCESS

### UAS Maritime & Multi Skilled Worker Graduate Deborah Rose:

While working on her Qualified Member Engine Department (QMED) credential, Deborah was hired by NOAA as a Relief General Vessel Assistant (GVA) in April 2019 and worked on five different NOAA vessels. She earned her QMED in October 2019, applied for, and accepted a permanent position as a GVA in the engine department aboard the NOAA vessel R/V Bell M. Shimada. Providing Alaskans with career pathways is exactly what the program was designed to do.



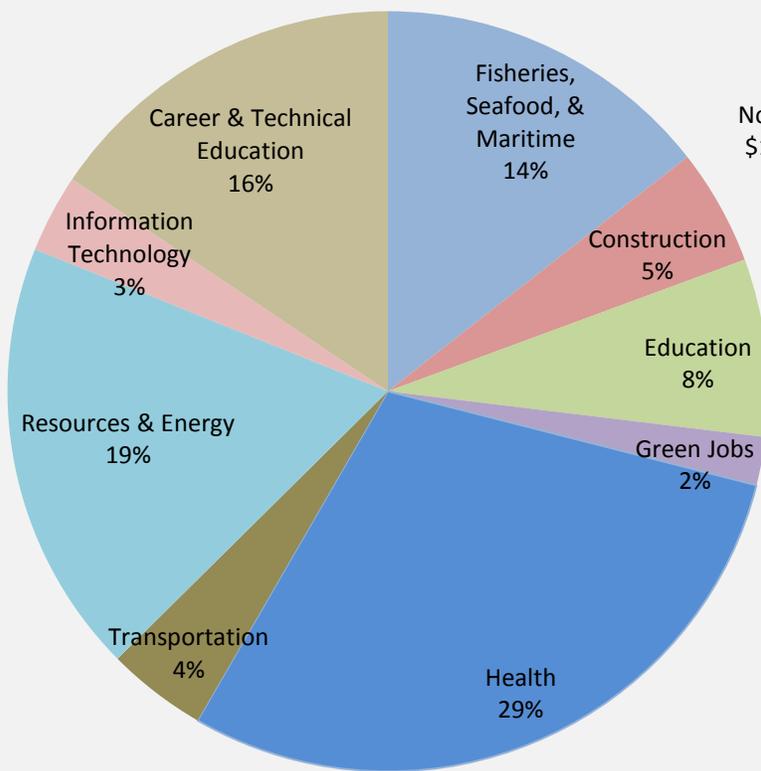
<sup>1</sup>Developing Alaska’s Maritime Workforce – <http://labor.alaska.gov/maritimeplan/>

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

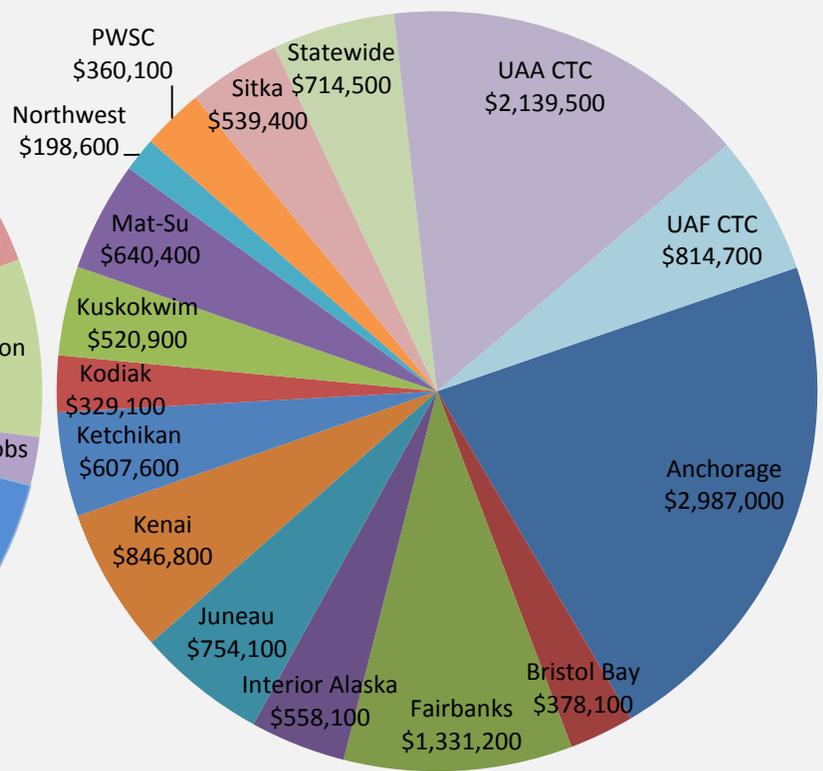


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**UA TVEP Supports  
High Priority Industries  
FY17 - FY19**



**UA TVEP Supports  
Campuses Statewide  
FY17 - FY19 (in \$1,000)**



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