

# Fisheries, Seafood, Maritime Initiative (FSMI)

## 2020 Annual Report

University of Alaska | Supporting the Maritime Workforce



UNIVERSITY  
of ALASKA

*Many Traditions One Alaska*



Courtesy of ASMI

[www.alaska.edu/fsmi](http://www.alaska.edu/fsmi)

### FSMI Leadership Team

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*The University of Alaska's Fisheries, Seafood and Maritime Initiative supports Alaska's maritime workforce and economy by delivering education, training, and research.*



## Alaska's Maritime Industry Retains Importance

Even with the significant impacts from a precipitous decline in oil prices resulting in severe cuts to the state's budget, and disruptions from the COVID-19 pandemic, Alaska's maritime sector remains vitally important. While the future of any particular industry remains to be seen in these uncertain times, it is hard to imagine the state's dependence on maritime activity will decrease, given Alaska's 34,000 miles of coastline (more than all other states combined), coastal borders on three seas, more inland water than any other state, and annual production of over half the nation's commercial seafood. In addition, as the Arctic continues to open, there will be more shipping and travel to and from the state. Alaska will continue to need a skilled workforce to fill the maritime jobs that will help reinvigorate, sustain, and grow the state's economy.

## FSMI Coordination

The University of Alaska (UA) Fisheries, Seafood, and Maritime Initiative (FSMI) supports the ongoing efforts of three active working groups, each focused on one of the three maritime sectors identified in the 2014 Alaska Maritime Workforce Development Plan: Marine Occupations and Support Industries; Research, Enhancement, and Management; and Seafood Harvesting and Processing. These groups meet regularly to review workforce and training needs, collaborate to develop and deliver training that is responsive to industry needs, and address challenges to make training more accessible for Alaskans to obtain maritime certifications and employment in Alaska's maritime industry.

Training organizations and industry continue to nurture and expand their partnerships to address the growing workforce needs of Alaska's maritime industry. These partnerships were formalized in 2010, leading to the publication of the Alaska Maritime Workforce Development Plan in 2014. The implementation of the plan continues through FSMI and key partnerships. This report highlights the activities and outcomes of FSMI and its partners in FY19 and FY20.

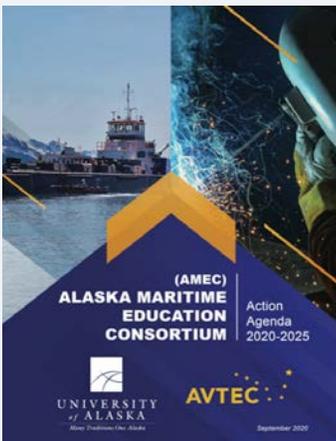
For more information, please see the FSMI website at [www.alaska.edu/fsmi](http://www.alaska.edu/fsmi).



Courtesy of University of Alaska

## Progress through Partnerships

A variety of partnerships across the state are actively involved in maritime workforce development activities and initiatives. Below are brief summaries of key FSMI partnerships.



### Alaska Maritime Education Consortium

University of Alaska and the Alaska Department of Labor and Workforce Development through the Alaska Vocational Technical Center (AVTEC) have formed the Alaska Maritime Education Consortium (AMEC) to collaborate on maritime training and workforce development focused on the Marine Occupations and Support Industries (MOSI) sector.

In late 2020, the United States Maritime Administration issued its call for applications for state-operated training providers to gain designation as Domestic Maritime Centers of Excellence (DMCoE). Specific regions where DMCoEs will be located include the Great Lakes, Atlantic and Pacific Oceans, Gulf of Mexico, Gulf of Alaska, and the Arctic Ocean. AMEC has submitted its proposal with the goal of receiving a DMCoE designation in 2021.

In preparing the DMCoE application, AMEC developed its five-year Action Agenda as a follow-up to the 2014 Alaska Maritime Workforce Plan. It includes a brief summary of the Plan's goals and strategies, an update and review of MOSI occupations and labor market information, activities and outcomes since the Plan was published, and specific AMEC projects to strengthen training and employment.

[www.alaska.edu/fsmi/groups/mosi](http://www.alaska.edu/fsmi/groups/mosi)

# Alaska Research Consortium

Formed in 2016, the Alaska Research Consortium (ARC) is a 501(c)(3) community-industry partnership that advocates for sustainable fisheries, marine science, and Alaska's maritime economy. Their "Alaska's Seafood Future Project" will culminate in an action agenda to strengthen the state's seafood industry, focusing on expanding seafood workforce training and applied research and engaging Alaska's youth in seafood processing careers. It is being developed with input from industry and training providers and, like the AMEC Action Agenda, is another example of efforts to further implement the 2014 Alaska Maritime Workforce Development Plan.

[www.alaskaresearchconsortium.org/](http://www.alaskaresearchconsortium.org/)



**WORKFORCE DEVELOPMENT  
TRAINING**



**TECHNICAL ASSISTANCE  
TO INDUSTRY**



**APPLIED RESEARCH**

## Maritime Works

Maritime Works, an industry advisory group under the auspices of the Alaska Safety Alliance (ASA), is expanding maritime career awareness. They have updated the maritime career information on their website; presented at educational conferences such as Alaska CAN!; and partnered with the Southwest Alaska Municipal Conference to share a maritime-focused VISTA volunteer for outreach activities.

Maritime Works is partnering with FSMI to develop and implement a more robust marketing, recruitment, and career awareness campaign and develop more opportunities for high school students and for unemployed adults to learn about and enter into a maritime career pathway.

[www.alaskasafetyalliance.org/explore-careers/  
maritime-careers/](http://www.alaskasafetyalliance.org/explore-careers/maritime-careers/)



Alaska Safety Alliance photos

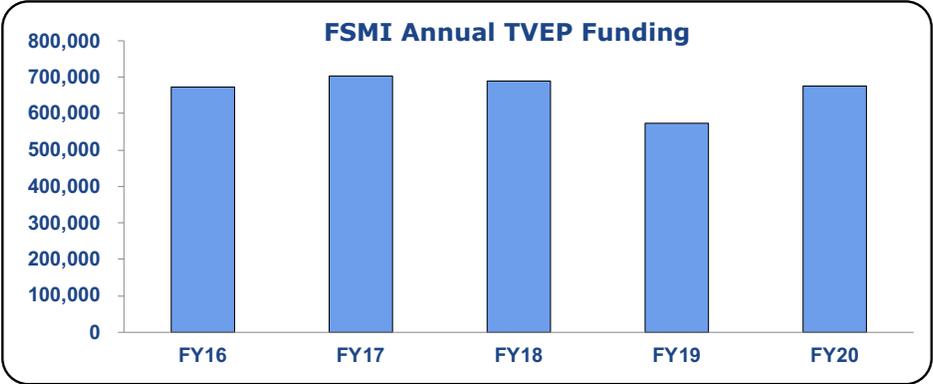
# Investments and Outcomes



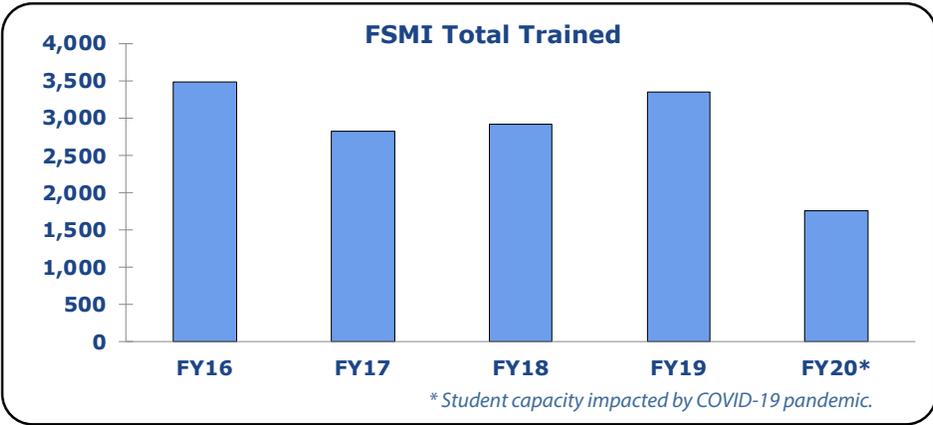
Courtesy of Chris Sannito

Over the last five years, UA has invested an annual average of \$662K from the Technical Vocational Education Program (TVEP), in addition to other funding sources, into FSMI programs to support the implementation of the Alaska Maritime Workforce Development Plan.

Investment examples include funding program development, expansion, and delivery of maritime workforce training, varying from short, focused workshops to semester-long courses. Many result in industry recognized credentials, from American Boat and Yacht Council (ABYC) or National Center for Construction Education and Research (NCCER) certifications to United States Coast Guard (USCG) licensure. The funds also supported ongoing FSMI coordination and investment in industry-identified workforce initiatives.



As one would expect, the university system was not spared the effects of the COVID-19 pandemic. In response, UA pivoted from mostly in-person to mostly online learning. Maritime programs, like most technical training programs, involve hands-on skill development and assessment and are difficult to provide online. To accommodate COVID safety protocols, the delivery of these hands-on courses was either limited or delivered at half-capacity. While UA remained committed to delivering training to the greatest extent possible for this important industry, the limitations resulted in a decrease in student numbers.



# FSMI Working Group Highlights

Courtesy of University of Alaska Southeast-Ketchikan Maritime Training Center



## Marine Occupations and Support Industries (MOSI)

- The Alaska Vocational Technical Center (AVTEC) is a key partner (see AMEC on pg. 3) in meeting Alaska's maritime workforce needs through their suite of US Coast Guard-approved programs and their world-class Alaska Maritime Training Center programs, instructors, and facilities.
- UAA Kachemak Bay Campus (KBC) offered Outboard Motor Maintenance and DC Electric courses as well as US Coast Guard courses for 100 ton and able seaman, all of which address Homer's maritime workforce needs. Connections with local industry partners allow KBC to collaboratively offer just-in-time training.
- UAA Prince William Sound College (PWSC) developed two new maritime programs. One gives students an overview of the industry and the opportunity to earn a certification as a Marine Service Technician and an NCCER Introduction to Maritime Trades certification. PWSC also developed an Occupational Endorsement Certificate program aligned with the American Boat and Yacht Council (ABYC) standards.
- UAA Kodiak College is partnering with PWSC to offer the ABYC OEC program and is developing dual enrollment opportunities with the Kodiak School District to align with the OEC.
- Bristol Bay Campus and the UAF Alaska Sea Grant Marine Advisory Program continued to expand its Maritime Career and Technical Education Pathway that leads to entry-level fisheries jobs and provides career exploration to high school students. Classes included outboard and diesel engine maintenance and repair, crew skills training, and marine safety training.
- UAS Ketchikan Campus Maritime Training Center provides US Coast Guard approved courses in partnership with other UA campuses, AVTEC, and the local school district. Industry partners are key to the program's success and include the Alaska Marine Highway System, Southeast Pilots Association, and Vigor Alaska Shipyard. Both credit and non-credit pathways are available for new and incumbent mariners. The center's ship simulator and navigation lab were recently upgraded by Transas - Wärtsilä to Full Mission Bridge standards to provide state-of-the-art hands-on technical experience and help meet the growing training needs of the maritime industry.

## Seafood Harvesting and Processing (SHP)

- As a key partner in implementing the Alaska Maritime Workforce Development Plan, the Alaska Research Consortium (ARC) contributes to meeting Alaska's seafood workforce needs through research, training, and advocacy for Alaska's blue economy (see ARC, pg. 4).
- Alaska Sea Grant (ASG), one of 34 Sea Grant programs nationwide, reported in 2019 its activities generated over \$8.5M in economic benefits to Alaska from its work in marine safety and seafood safety classes, seafood technology programs, professional consultations, and other activities. ASG also



Courtesy of Alaska Sea Grant

developed a variety of online resources to help Alaskan seafood and fishing businesses respond to COVID-19-related issues, including webinars, a publication for managing business risk, and information on state and federal assistance programs.

- Kodiak Seafood and Marine Science Center (KSMSC), operated by ASG, hosted trainings for over 250 participants in 2020, including seafood processing and fishing industry classes, and undergraduate fisheries classes, workshops, and seminars. Other activities included research projects in seafood science, product development, climate change, harmful algal blooms, and safe subsistence harvest of shellfish; published peer reviewed reports; and technical assistance to seafood businesses, state and federal agencies, tribal representatives, and nonprofit groups.
- UAA Kodiak College delivered non-credit courses that were developed to meet specific workforce needs, identified by community stakeholders and employers working in the local fishing industry. Partnerships with UAF Alaska Sea Grant, UAS, Kodiak Area Native Association, and AVTEC strengthened their delivery options.

## Research, Enhancement, and Management (REM)

- UAS School of Arts and Sciences and UAF College of Fisheries and Ocean Science (CFOS) launched a joint Bachelor of Science in Fisheries and Ocean Sciences degree with a Fisheries Science concentration. This collaboration allows Juneau-based UAS students to earn a bachelor of science degree in Fisheries Science. Five students were enrolled in FY19 and nine in FY20, with the first degree awarded in FY20 (see Student Success story on page 8).
- UAF CFOS revamped its Bachelor of Science in Fisheries and Marine Sciences with concentrations in Fisheries Science, Marine Biology, Oceanography, and a general option. They also revised the Master of Marine Studies degree program to include asynchronous graduate-level courses scheduled for fall 2021, and received \$3 million from the National Science Foundation to develop a graduate program that will increase the inclusion of Indigenous peoples and knowledge. The program is called “Tamamta,” which means “all of us” in the Sugpiaq and Yup’ik languages of the Indigenous peoples of Alaska’s southcentral coast.
- UAS Sitka’s Fisheries Technology Program is collaborating with other UA programs to enhance the pathway between the Fish Tech AAS degree and a BS degree in Biology or Fisheries to improve transitions between programs and expedite the time to degree completion. Industry partnerships have significantly contributed to Fish Tech students’ success by providing over \$200,000 in grants, scholarships, and stipends over the last five years.

# Students Succeed in Maritime

Courtesy Alaska Safety Alliance



Photo courtesy of Kayla Drumm

## UAS/UAF Joint Fisheries Program: Kayla Drumm

Kayla Drumm is the first graduate of the joint UAS/UAF Bachelor of Science in Fisheries and Ocean Sciences program. Growing up in Yakutat, Alaska, Kayla was always interested in marine life, especially fish, and wanted to stay in Alaska and work in the fisheries field. Originally enrolled in the Marine Biology Program, she switched to the fisheries program in spring of 2018, explaining it felt like a much better fit. When she found out she was pregnant with her daughter, she said the mix of in-person and online classes allowed her to successfully finish her degree.

Kayla now works at the Alaska Department of Fish and Game's "Mark, Tag, Age Lab" in Juneau, where she pulls coded wire tags from salmon, ages herring scales, estimates herring egg counts, and is one of the primary weathervane scallop age readers.



Photo courtesy of James Johnson

## UAS Ketchikan QMED Program: James Johnson

James Johnson, a Marine combat vet, went from the battlefield to the ocean after completing the Maritime and

Multiskilled Worker/Qualified Member of the Engine Department program at UAS Ketchikan Campus in fall 2019. He was hired by NOAA in early 2020 and is now a permanent crew member on the R/V Oscar Elton Sette, an oceanographic research vessel that conducts fisheries assessments, oceanography research, and marine mammal and debris surveys in the Pacific Ocean. James is stationed in Honolulu, Hawaii, and credits the UAS program and faculty as being instrumental in his successful transition from military to civilian life and being able to secure a new career in the maritime industry.



Photo courtesy of Alexander Tallekpalek

## Alaska Sea Grant Program: Alexander Tallekpalek

A Tribal Leader and commercial fisherman, Alexander Tallekpalek lives in his home community of Levelock, Alaska, on the Kvichak

River in Bristol Bay. With tribal and community support, he and others are building a local fish processing plant to provide the small community of about 50 people with jobs, as well as to bring people back to the area by providing more fishing opportunities. He has taken several classes through Alaska Sea Grant to learn both the hands-on technical skills and business aspects of fish harvesting and processing. The knowledge and skills he has gained are helping with his own commercial fishing business and preparing him to be a manager for the Levelock processing plant when it opens in 2021. Alexander applauds Alaska Sea Grant for the benefits their programs provide, especially for small rural communities and their residents.

[www.alaska.edu/fsmi](http://www.alaska.edu/fsmi)

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