

Workforce Sustainability in Maine's Coastal Industries: Strategies to Diversify, Train, and Bolster the Workforce

by Jessica L. Picard

INTRODUCTION

As evidenced by the remnants of great oyster shell middens along the Damariscotta River left by indigenous peoples over a thousand years ago and long before Europeans arrived, using the resources of the ocean and connecting waterways has long been a way of life for those living in what is now the state of Maine. Over that time many beloved traditions have persisted, and many families carry on the professions of those who came before them.

There is a unique challenge to collecting data about those working in coastal industries such as commercial fishing because many are self-employed and are not covered by the state unemployment insurance system. Job and wage records collected for unemployment tax purposes are often the foundation for labor statistics.

However, according to a January 2023 report titled *The Economic Impacts of the Maine Seafood Sector*, the seafood sector contributed over \$3.2 billion dollars in total economic output to the Maine economy in 2019 (Wallace and Colgan 2023). The sector supported over 33,000 jobs statewide, 23,846 of which were employed directly in sector industries and another 9,400 additional jobs supported from other indirect and induced multiplier effects. According to the report, harvesting (all species) accounts for over 12,700 direct jobs.

Seafood retail and restaurant employment accounts for over 8,500 jobs.

Total direct and multiplier effects jobs in seafood estimated makes the seafood sector the largest natural resource-based sector in the Maine economy. While conversations are happening across the country on how to keep food sources such as those hauled from the sea and rivers sustainable, another key piece is how to create a sustainable, diverse, and thriving workforce.

As of this writing in November 2023, Maine has been experiencing near record low unemployment, and a very tight labor market where there are two jobs available per unemployed job seeker. In this labor market, job seekers have many choices and opportunities available to them. In response, coastal industries are adapting their training pathways, hiring practices,

and retention strategies to reflect the importance of job quality, including wages, diversity, safe working conditions, and opportunities to advance.

SUSTAINABILITY

According to Workers Compensation data, between 2012 and 2022, there were 161 instances of a worker in Maine's fishing or aquaculture industries reporting an injury which resulted in lost time (Figure 1). Most of these injuries were over-exertions, followed by slips, trips, or falls. Both injury events commonly resulted in soft tissue injuries, such as strains or sprains.

UMaine's FishAbility program, part of AgrAbility, offers resources, information, and solutions to help fishermen work safely and productively. Antonia "Toni" Small, co-owner of Ice House Oysters in Port Clyde and a yoga instructor, has recently started working with FishAbility to incorporate yoga into the initiative's offerings, such as through video clips demonstrating poses and breathing practices.

FIGURE 1: Total Number of First Report of Injury Claims Filed for Coastal Workers by Injury Event in Maine, 2012–2022



“Part of the problem with fishing is it’s often asymmetrical,” Small said. “So trying to help people conceive of both stretching but then also potentially strengthening the other side.”

The yoga is practiced in the workplace environment, such as on a boat or using fishing gear. According to Small, FishAbility looks at the ways in which a body is challenged over and over and over again by the work. By helping prevent injuries, people can stay on the job for the long haul.

The Maine Department of Labor’s Bureau of Rehabilitation Services (BRS) is also a resource for individuals whose injuries have resulted in a longer-term disabling condition that impedes their continued occupational success. Vocational counseling and guidance, adaptive equipment, accommodations, and training are examples of services that are available to help with continued employment in these industries or even making a career change if needed.

DIVERSITY

While keeping current workers safe on the job and able to work as long as they wish to is crucial, industries are also looking to diversify and expand their talent pool.

In Maine’s lobster industry, many of the fishermen come from a long line of other fishermen who taught them the ropes at a young age. The generational nature of the industry has in the past made it difficult for those with differing backgrounds to get started.

At Luke’s Lobster Seafood Co. in Portland and Saco, a Certified B Corp, supporting diversity both on the water and in their production facility has become a part of their mission. In 2022, Luke’s launched the Lift All Boats project—a student mentorship program built

to help diversify Maine’s lobster fishery and make it easier for historically disadvantaged groups to get licensed.

“Today, very few of Maine’s 4,500+ lobstermen are people of color... the only way to become a commercial lobsterman is to wait on a decades-long wait list or complete a student lobster license program. The student program requires access to mentorship, gear, a boat, and other resources that are only available to current fishermen or industry insiders, almost all of whom are white. This presents a systemic barrier to entry to anyone who’s family isn’t in the industry,” Luke’s website reads. The project provides the gear, mentorship, and industry connections. The students spend 60 hours on the water and the docks learning how to set and haul traps, maintain their gear, and operate a boat safely. Other members of Luke’s senior management team, partners at Island Institute, and local business leaders provide mentorship on business and financial management.

In 2022, Luke’s Lobster Seafood Co. also received a \$199,319 Strengthening Maine’s Workforce grant through the Maine Jobs and Recovery Plan. The grant, administered by Westbrook Adult Education, has been used to help create a two-year, employer-based English Language Lab program for multilingual learners at the production facility in Saco.

Because of the lobster-processing industry’s inconsistent work schedules, transportation and childcare were often barriers for employees to attend area



Willa, Carlos, Issak, Mariano, Miguel, Angela, and Ali rest after a day of lobstering.

Credit: Courtesy of Luke’s Lobster Seafood Co.

adult education program’s English language acquisition classes. The grant helped the company set up a more flexible program onsite, which began in July of 2023. So far, there are about 30 students enrolled in the program. The grant funds English as a Second Language (ESL) instructors to work onsite five days a week, as well as the associated materials and licensing for ESL software, ENGEN.

“The program that Maine Adult Education has created is truly amazing. Enrolled students work with an in-person teacher, certified through Maine Adult Education. Classes are held at a variety of times to accommodate varied work schedules and instructors have been creative in their methods to engage our teammates. They’ll leave materials in our break room for quick break lessons or to bring home and leave notes in student shoe cubbies inviting them to class and letting them know the schedule for the week,” Morgan Kamensky, Director of People and Culture at Luke’s, said.

“We’ve already seen a boost in confidence in some of our long-time teammates just from hearing that they’re at a higher level of English based on their intake testing than they had imagined,” Kamensky said. “Our teammates are

excited, and we really hope to see this program grow and be sustained even beyond the two years of the grant.”

CAREER EXPLORATION AND TRAINING PATHWAYS

A key piece of sustaining a sector’s workforce is ensuring that there is a steady talent pipeline of people interested in the work and learning the skills needed to be successful.

The mutually beneficial Maine Apprenticeship Program, in place since 1941, works with both employers and workers to fulfill workforce talent needs and connect people to training pathways and high-quality jobs. Administered by the Maine Department of Labor, apprenticeship gives workers an opportunity to “earn while they learn,” and receive a nationally recognized, portable credential without accumulating debt.

Registered apprenticeships require at least 2,000 hours of on-the-job training and a minimum of 144 hours formal coursework for each year of the apprenticeship. The program builds in safety training, structure, mentorship, and a clear pathway to advance. Because apprentices are full employees of the business, they also have built in supports that many in coastal industries such as self-employed fishermen lack, such as wage and hour protections, unemployment insurance, and workers’ compensation. A proven hiring, training, and retention strategy, over 90 percent of registered apprentices nationwide continue to work with their employer once their training is complete (US DOL n.d.).

In January 2022, the Maine Apprenticeship Program launched a \$12.3 million grant opportunity, funded by the Maine Jobs and Recovery Plan and a U.S. Department of Labor State Apprenticeship Expansion, Equity, and

Innovation (SAEEI) grant. Fourteen organizations were selected for their plans to expand apprenticeship and pre-apprenticeship opportunities across the state. These organizations are expected to create new training and work opportunities for 1,000 new apprentices and 2,000 new pre-apprentices, add more than 150 new employer sponsors, and create new apprenticeships in more than 50 new occupations by December 2024. While registered apprenticeships have long been used in coastal industries such as shipbuilding, through these grants, Maine became the first state in the country to create pre-apprenticeship and apprenticeship programs in the aquaculture industry.

Aquaculture Pre-Apprenticeships

A certified pre-apprenticeship is a training program designed to prepare individuals to enter into and succeed in a registered apprenticeship program. It includes supervised hands-on training, workplace safety training, and at least one agreement with a registered apprenticeship sponsor. Every program also includes a documented outreach plan to increase opportunities for underrepresented, disadvantaged, or low-skilled individuals, and members of historically marginalized communities.

At Bangs Island Mussels in Portland, pre-apprentice Andrew Hoffman has been learning on the job since June. Hoffman, originally from Chicago, graduated from Bates College in 2023 with a degree in environmental studies. He then joined the Aquaculture Pioneers, an internship program that was officially recognized as a certified pre-apprenticeship program by the Maine Department of Labor in 2023, and hired by Bangs Island Mussels.

While Bangs Island Mussels has had interns in the past, this was their first



Pre-apprentice Andrew Hoffman stands on a boat used for mussel harvesting at Bangs Island Mussels in Portland.

experience with pre-apprenticeship. The cost of hiring and training interns for short periods of time can be costly, but through this program, Educate Maine provides employers with a stipend reimbursement. Pre-apprenticeships give employers and workers the time and flexibility to try new things and learn skills in a hands-on way.

“Because mussel farming is kind of an obscure industry, nobody we bring on really has mussel experience. Some people have varying degrees of ocean experience, which can be important. But basically we trained Andrew like we would train anyone else, any other crew member. This is how you operate safely on the water, this is what we do,” Matthew Moretti, CEO of Bangs Island Mussels, said. “A lot of it is on-the-job training because it’s so foreign to everybody that you really have to do it and witness it to understand.”

Aquaculture Registered Apprenticeships

Farther up the coast, aquaculture apprentices Katherine Lipp and Colin Quinn have been working at Mere Point



Colin Quinn and Katherine (Kat) Lipp, registered apprentices at Mere Point Oyster Company in Brunswick, put small oysters that had been harvested earlier in the day back into the water so that they may continue to grow and reach market size. (August 2023)

Oyster Co. in Brunswick, and apprentice Gabriel Chlebowski at Muscongus Bay Aquaculture in Edgcomb. They all started their year-long programs in the spring of 2023.

Although she grew up visiting Maine, Lipp is originally from Ohio. While fishing is not in her family's background, she studied marine biology at the University of Miami and then lived and worked in Alaska's seafood industry for eight years. When Lipp moved to Maine in the fall of 2022 to be closer to family, she heard about the aquaculture apprenticeship program while networking. Quinn, who moved to Maine from Massachusetts in 2021 and was previously working in beverage production, had been interested in aquaculture for a while and jumped at the chance to try it when he saw the apprenticeship pilot. Chlebowski, from rural Pennsylvania, had originally planned to go to college right after high school but decided to hold off. He got a job working construction and then spent some time traveling before moving to Maine in February 2023.

Apprentices started off their training with a 40-hour "bootcamp" that included some hands-on boat work, safety training

including AED and CPR certification, talking with oyster farmers, a tour of the Darling Marine Center, and being provided with gear such as personal flotation devices. As the year-long programs progress, apprentices will take more classes along with their hands-on work. Because summer is the busy season, most course instruction will

take place over the winter. Apprentices will also have days where they visit each other's workplaces and show each other what they have been learning.

According to Lipp, "You could tell people were excited about the program, so it made us excited to be in the program." Quinn strongly recommends the program: "it's a very good entry into an industry that might be more difficult to get into otherwise." And Chlebowski really appreciates the mentorship component, saying about his mentor: "He's been an incredible mentor, so knowledgeable and makes work a great place to come to." All three apprentices mentioned how they enjoy how tasks change from day-to-day, from tasks such as harvesting oysters, to packing orders for shipping, to learning oyster husbandry and working with seed.

"I think (the apprenticeship program) is just another thing in this state that shows that Maine is at the forefront of this industry and how we are being the innovative leaders for what the future could be for the working waterfront. This is how you develop working waterfront companies and how we maintain the tradition that we all take a lot of pride in of making a living from the beautiful

water we all live on," said Jeffrey Auger, Director of Business Growth and Acquisitions for Atlantic Aqua Farms, the parent company of Muscongus Bay Aquaculture.

Career Exploration

Even farther up the coast in Franklin, Kingfish Maine, part of the Kingfish Company, is also piloting a registered aquaculture apprenticeship program with Washington County Community College, modeled off of Kingfish's successful apprenticeship work in the Netherlands. They have also partnered with Jonesport-Beal High School, a public school in Jonesport, to teach students about aquaculture and its local possibilities. Kingfish is in the process of building a new recirculating aquaculture system (RAS) facility in the town.

Kingfish Maine bought the high school a small RAS system, which allowed them to grow tilapia in the classroom. Robin Monini has taught the class, along with an aquaponics class, for the past three years. She had always been interested in teaching aquaculture and natural resources, as she participated in an aquaculture program in high school with an inspiring teacher. Monini teaches her classes in a former family and consumer science classroom, with access to a full kitchen where she has a hydroponics setup. The classes also use a 10-ft by 20-ft greenhouse, where there are two 250-gallon fish tanks—one of which is attached to a plant bed in order to grow plants aquaponically. Because the classes are through the regional career and technical education (CTE) program, they are available to other area high school students as well.

According to Tom Sorby, Kingfish Maine's Operational Manager, there's not a lot of aquaculture education in general in the United States, particularly at the

high school level. Sorby thinks it's important for Maine high school students to be aware of potential careers in the aquaculture industry, rather than only finding out about it when they go to college.

LOOKING AHEAD

Companies such as Kingfish Maine will also soon benefit from a new aquaculture center being designed by UMaine for their Orono campus (Royzman 2023). The Sustainable Aquaculture Workforce and Innovation Center is intended to expand research capabilities and provide workforce training to meet growing industry needs. The facility will include classrooms, small laboratories, and tanks and other equipment resembling a recirculating aquaculture system. UMaine has received \$3.5 million toward the project through the Maine Jobs and Recovery Plan.

More research into industry needs is also taking place. SEAMaine, or the Seafood Economic Accelerator for Maine, is an industry-led initiative bringing together leaders in Maine's commercial fishing, aquaculture, and seafood economy. Funded by the US Department of Commerce Economic Development Administration, with match funding from the Maine Technology Institute and FocusMaine, the statewide initiative is developing a roadmap and action plan for economic growth, market and workforce development, and greater resiliency in Maine's seafood economy.¹

The initiative has also created a workforce needs assessment report, which breaks down jobs within the seafood sector by those identified as core, and periphery, such as supermarkets and restaurants. Taken collectively, the number of jobs in the core sectors is expected to grow by 9 percent, adding 1,091 positions by the year 2033, and the

number of jobs in the periphery sectors is expected to grow by 10.5 percent, adding 2,313 jobs by 2033 (TPA 2023).

WHERE TO GET STARTED?

Whether you are an employer looking to hire or want to consider workforce strategies that may work for you, or someone looking to connect with the next step in their career, contacting one of the statewide CareerCenters should be a first stop. Maine CareerCenters provide a variety of employment and training services at no charge for Maine workers and businesses, including one-on-one counseling and consulting, workshops, hiring events, connection to training programs, and much more. Employers and job seekers can also connect by posting and browsing job postings and resumes free of charge at the Maine JobLink.²

CONCLUSION

In this tight labor market, job seekers have many choices and opportunities available to them. In response, employers in coastal industries are adapting and expanding their outreach, training pathways, hiring practices, and retention strategies, and putting more of an emphasis on job quality.

These specific initiatives outlined here are only a sampling of the work taking place around workforce development and sustainability in coastal industries, which is ongoing.

NOTES

- 1 <https://www.seamaine.org/about/>
- 2 <https://joblink.maine.gov/>

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