

[ CONNECTING EMPLOYERS, EDUCATIONAL INSTITUTIONS, AND WORKERS ]

# Navigating Employer Needs:

*Skills for Life Marine Mechanics Training Program*



CASE STUDY 4

# Overview

In Northwest Ohio, businesses in the counties hugging the southern shoreline of Lake Erie rely heavily on tourism dollars associated with recreational boating in order to fuel local economies. Anything that impacts the ability of that industry to flourish impacts local economic conditions. So it was greatly concerning when, in early 2000, staff from the Wood, Sandusky, Ottawa, and Seneca (WSOS) Community Action Commission first heard that marinas throughout the Lake Erie Islands area experienced difficulty finding qualified entry-level marine mechanics. According to the Bureau of Labor Statistics, a marine mechanic or motorboat mechanic is one who “repairs and adjusts electrical and mechanical equipment of inboard or inboard/outboard boat engines.” Marine mechanics provide an essential function of maintenance and repair in the recreational boating industry. A shortage of entry-level mechanics increases the costs associated with owning and operating a boat in the area.



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According to the Ottawa County Improvement Corporation (OCIC), a local economic development agency, marina owners reported that they began experiencing this problem once a training program offered through a career-technical education school had been dissolved in the late 1990s. In order to find qualified mechanics to meet business demands, marinas were stealing workers away from each other by offering slightly higher wages. It took one owner three months to find a single qualified applicant. This was clearly not a sustainable situation, and it needed to be addressed immediately, given the importance of recreational boating to the local economy.

Overall, the recreational boating industry in Ohio accounts for \$3.6 billion of annual economic activity and 28,921 jobs, according to a 2012 National Marine Manufacturers Association study.<sup>1</sup> While it is difficult to estimate accurately the economic impact of recreational boating to a specific local area, the Lake Erie Islands area accounts for roughly 40 percent of the recreational boating industry businesses in Ohio, according to the same study.<sup>2</sup> The industry demand for marine mechanics, along with the importance of recreational boating to the local area, provided the impetus for creating a sector-based training program for entry-level marine mechanics.

<sup>1</sup>National Marine Manufacturers Association, 2012 Recreational Boating Economic Study. Available at [http://www.nmma.org/assets/cabinets/Cabinet432/NMMA\\_ecoimpact\\_booklet\\_optimized.pdf](http://www.nmma.org/assets/cabinets/Cabinet432/NMMA_ecoimpact_booklet_optimized.pdf).

<sup>2</sup>The National Marine Manufacturers Association study includes economic breakouts by Congressional districts; this statistic reflects an aggregation of data for Congressional districts 4, 5 and 9.

# Volvo Penta of the Americas and Yamaha donated marine engines, engine simulators, and other technical equipment worth more than \$1 million to the program because they understand the value of entry-level training to the recreational boating industry.

## Partnership & Program Structure

In the early 2000s, the Skills for Life Marine Mechanics Training program was formed as a collaborative partnership for the betterment of the region and its people. The organizing groups recognized the economic importance of the local recreational boating industry and marine mechanics within that industry.

In addition to WSOS and OCIC, key members of the Skills for Life partnership include a business advisory board made up of local marine dealers and marina owners, the Penta Career Center, and industry manufacturers Volvo Penta of the Americas and Yamaha. WSOS and OCIC share day-to-day management of the program, but each also has its own unique role within the partnership.

WSOS serves as the convener of the partnership as well as the administrative entity for certain funding sources.

Figure 2  
Skills for Life Marine Mechanics Training Program



In addition, WSOS’s expertise in case management helps address personal barriers to employment. WSOS staff members bring a depth of knowledge about the gamut of “wrap-around” supportive services available to those students in need. They work with students to ensure that any barriers to employment have been addressed prior to completion of the program. WSOS staff members also contributed to the initial grant writing and logistics (curriculum creation, training space research, admissions) involved in the creation of the training program.

OCIC maintains the training space at the Ottawa County Resource Center, built in 2003 after the county commissioners decided to build a dedicated state-of-the-art training space to accommodate the needs of the program. OCIC also recruited Volvo Penta of the Americas to relocate its own advanced training programs to the facilities at the Ottawa County Resource Center—a huge bonus for the local community, as these advanced training programs, which promote a career-path approach to jobs training, had typically been available only outside the region.

The marine dealers and marina business advisory board have a dual role within this partnership. First, the business advisory board provided much-needed guidance and recommendations to the group responsible for creating the training program. They not only provided input on initial curriculum content, but also recommended additions (on boating safety, CPR, forklift driving, etc.) to the curriculum as the program matured. The advisory board noted the importance of having an instructor from the field who was familiar with the day-to-day demands of a marine mechanic. They also recommended looking at other examples of marine mechanic-training facilities in advance of building the Ottawa County Resource Center. Additionally, the business advisory board recommended that, since the equipment needed to properly conduct a training class was not within the initial budget for

the program, the partnership solicit equipment donations from manufacturers. The other role the business advisory board fills, of course, is as a pool of employers that serves as a source of on-the-job training opportunities and eventual job placements for graduating students.

The training institution involved with the partnership is the Penta Career Center, a public vocational high school and adult education administrator in Northwest Ohio. Staff at the Penta Career Center help with curriculum development for the program, along with contracting the instructor for the training. In addition, the Penta Career Center conducts the WorkKeys student assessment portion of the program. Industry-recognized program certificates are also issued by Penta Career Center upon students' completion of the program.

Another essential component of the sector-based partnership is buy-in or support from the industry. Industry buy-in came in the form of equipment donated by two manufacturers of marine motors. Volvo Penta of the Americas and Yamaha donated marine engines, engine simulators, and other technical equipment worth more than \$1 million to the program because they understand the value of entry-level training to the recreational boating industry. In addition, Volvo Penta of the Americas houses its national training program classes in the same building as the Skills for Life program.

Becoming a basic marine mechanic requires completion of a 300-hour program conducted over a single 12- to 16-week span (weather permitting) during Ohio's recreational boating offseason (usually December through March). Hiring typically occurs the following spring. Students initially go through an intake and assessment phase to determine job readiness, skill levels, and any barriers to employment that may affect job readiness. Those in need of supportive services work with WSOS staff to find the appropriate service provider prior to moving forward with training.

The course includes hands-on training with marine engines on topics such as preventative maintenance; mechanical, electrical, and instrumentation repairs of motor systems, fuel systems, cooling and exhaust systems, and propellers; and techniques of boat handling, safety, and boat repairs.

## Major Competency Areas of the Marine Mechanics Program

### Safety

- Demonstrates safe work practices at the job site

### Tools and Equipment

- Demonstrates knowledge of marine terms and components as well as proper use of hand tools, power tools, and diagnostic equipment

### Outboard Motors

- Demonstrates ability to diagnose, repair or replace, and test outboard motor components, including gear case, electrical and ignition systems, hydraulic systems, mechanical systems, propellers, fuel systems, corroded elements, cooling and exhaust systems, etc.

### Stern Drive (Inboard/Outboard) Motors

- Demonstrates ability to diagnose, repair or replace, and test stern-drive motor components, including drive units, electrical and ignition systems, transom assemblies, hydraulic systems, mechanical and fuel systems, etc.

### Seasonal Maintenance & Repair Practices

- Demonstrates proper use of sealers, lubricants, and antifreeze products on marine equipment; proper shrink-wrap and fogging techniques; and proper mooring and blocking procedures

### Water Safety

- Identifies and uses appropriate marine safety equipment
- Demonstrates proper marine navigation, docking, and trailering techniques

### Applied Literacy

- Demonstrates proficiency in reading and interpreting blueprints and technical diagrams

### Customer Service/Employability Skills

- Demonstrates appropriate written and oral communication skills, as well as knowledge of appropriate technical resources and suppliers

Figure 3 lists the major competency areas of the marine mechanics program. Upon completion, students receive the following certifications:

- Penta Career Center Adult Education Basic Marine Mechanic
- Ohio Boating Laws and Boating Safety
- First Aid/CPR
- Work Ethics

A typical class consists of 15 to 20 students who meet with an instructor Monday through Thursday from 5:30 pm to 9:30 pm to accommodate those students working during the day. Student participation in the program costs approximately \$3,300.

*It is a major success and a testament to the innovative staff that the Skills for Life program is able to continue operating year after year without a dedicated funding stream.*

## Successes and obstacles

For all parties involved in the Skills for Life training program, including enrollees, overcoming the obstacles encountered along the way are often the ultimate and greatest successes. Obstacles and subsequent successes are evident in the partnership's funding situation, student outcomes, and participating employers and partners.

### FUNDING

Funding is both a major success and an ongoing obstacle to the Skills for Life Marine Mechanics program. Initial funding for the program came from the Department of Labor's Sectoral Employment Demonstration program, which offered grants to "test the feasibility of the workforce development system to plan and undertake local [and] regional initiatives involving a particular industry sector in order to increase access to employment for targeted groups and to strengthen the economic competitiveness and performance of the sector's firms."<sup>3</sup> Unfortunately, as with most startup funding, the initial grant of \$150,000 ran out quickly, though it did illustrate the value of such a training program to those involved. Feedback from the business advisory group and other employers indicated that the program was successful and should be continued. Fortunately, partnership staff was knowledgeable about other potential funding streams that often led to blended funding streams as the program matured.

"We learned that you don't have to have a single funding stream to continue a project if you have a broad group of dedicated stakeholders committed to meeting the needs of business," noted Kerrie Carte, WSOS planning and development coordinator. "We certainly haven't had a single funding stream and we've been able to continue our program." Some students receive full or partial funding through local Job and Family Services departments, the WSOS Fatherhood Center for Hope, and marina employers. Other students pay their own way. It is a major success and a testament to the innovative staff that the Skills for Life program is able to continue operating year after year without a dedicated funding stream.

And program staffers continue to find ways around the lack of a dedicated funding stream. Several we interviewed stated they are working to secure funding by partnering with a local community college. Because a marine mechanic is not considered an "in-demand job" by the state of Ohio, the program is largely left out of state funding. To qualify as an in-demand job in Ohio, the job must have a median wage above \$12.90 an hour, annual growth in the number of jobs that is greater than the statewide average of 70, and have annual job openings greater than the statewide average of 250. A job may also be considered in-demand following a review by the in-demand review committee.<sup>4</sup> According to 2015 data from the Bureau of Labor Statistics, a marine mechanic in Ohio earns a median hourly wage of \$17.24, so it would meet the first criterion for an in-demand job, but it comes short on the growth and openings criteria. However, given some of the economic impact statistics cited earlier in this case study, a case might be made to the in-demand review committee that a marine mechanic is an in-demand occupation.

### STUDENTS

For students, the program is successful at addressing barriers to employment, training them for marine mechanic roles, and placing graduating students in jobs. Across 13 different classes, 159 students have enrolled, 134 (84 percent) have completed the program, and 96 (71 percent of completers) were employed within 90 days after graduation. Students are work-ready when they complete the program. Students also receive a set of tools upon completion of the program. Instructor Gregg Sharp stated that he often reminds his students of the benefits of a career as a marine mechanic. He noted that a fully

<sup>3</sup>Department of Labor, 2001 Sectoral Employment Demonstration Grant. Available at <https://www.doleta.gov/grants/sga/01-104sga.cfm>.

<sup>4</sup>Governor's Office of Workforce Transformation, An Introduction to Ohio's In-demand Jobs Report, 2015. Available at <http://jfs.ohio.gov/owd/OMJResources/InDemandBooklet.stm>.

trained marine mechanic can make a good living just about anywhere in the country that is near water. The average annual salary of marine mechanics is \$36,890, and the United States has thousands of miles of saltwater and freshwater coastline, along with tens of thousands of lakes. Moreover, impending retirements among employees from the baby boomer generation will create many opportunities for advancement in the industry.

Despite the program's successful outcomes in terms of employment and wages achieved by the graduates, obstacles do exist for students both at home and in the workplace. Program staff has successfully helped students address financial, healthcare, childcare, and transportation barriers to employment. That said, Mr. Sharp pointed out that marine mechanics is a physically demanding occupation that often requires working in tight spaces. As a result, the recruitment and enrollment of students into the program can be challenging. Retention is another obstacle, as some students realize during the program that a career as a marine mechanic is simply not for them.

## EMPLOYERS

For employers, the program is a success in that it supplies them with a pool of trained talent from which to hire. Employers know that program graduates will have the skill sets and major competencies employers need, saving them valuable training dollars. Employers also benefit from being able to gain additional information about potential hires from the instructor to ensure that a potential employee is a good fit for their businesses. During the 300 required program hours, Mr. Sharp gets to know each student, and reports that he regularly fields calls from employers asking questions about the quality of students' soft skills. This human resources function of the program helps to create better employer–employee matches and saves the employers money when hiring.

Another major success has been the program's ongoing engagement with and guidance from employers, which has led to many improvements to the program. For example, employers provided initial guidance on curriculum and program development, input that would not have been possible without regularly and actively engaging employers via the business advisory group. Other program improvements attributed to employer engagement include moving the timing of training to the recreational boating offseason,

adding the case-management component to the program to address employment barriers that employers were unwilling or unable to handle, and continuing to make adjustments to the program curriculum as employer needs and marine technology changes.

Given that employers all have their own businesses to run, engagement with the group can be a challenge. The partnership's ability to be flexible with times and meeting places has helped to keep employers engaged during the life of the program.

## PARTNERS

The successes of the partnership are the main reasons for the training program's overall success and longevity. First, one of the key partners, WSOS, stepped up to fulfill the convener role. The convener is responsible for keeping the group together and moving forward. Having a group or entity actively filling this role is vital to the success of any sector-based training program. Next, engaging both economic and workforce development entities was another major success of the partnership that ultimately helped influence the program. Both groups bring knowledge and information that the other needs, and through the partnership they were able to work together in a new way to address industry needs. Finally, to have U.S. Senator Sherrod Brown champion the program's model is a huge success. The Skills for Life Marine Mechanics program provided an example for Senator Brown's Strengthening Employment Clusters to Organize Regional Success (SECTORS) bill<sup>5</sup> that eventually was incorporated into the Workforce Innovation and Opportunity Act.<sup>6</sup>

Along with funding, turnover in staff at the partner organizations was one of the main obstacles the partners faced. Staff turnover required a constant need for educating new staff on the value of the program as well as helping to keep employers engaged. The seasonal nature of the recreational boating industry in Ohio is another obstacle. Because the boating season in Ohio is relatively short, employers place a high value on employees who are capable of doing more than strictly marine mechanics. Conversely, the seasonal nature of work can also act as a deterrent to those students looking to enter into the program. To address this dual challenge, employers stressed the need to broaden the curriculum to include more off-season competencies.

<sup>5</sup>The WSOS' Press, "WSOS's Carte's input vital to Ohio Senator's economic development bill," Fall 2008. Available at <http://www.wsos.org/uploads/wsospress/AugSep08%20NL.pdf>.

<sup>6</sup>"Senate Passes Workforce Investment Act Which Includes Provisions Modeled After Brown's Bipartisan Bill to Help Companies Address Skills Gap in Emerging Industries," June 25, 2014. Available at <http://www.brown.senate.gov/newsroom/press/release/senate-passes-workforce-investment-act-which-includes-provisions-modeled-after-browns-bipartisan-bill-to-help-companies-address-skills-gap-in-emerging-industries>.

# Conclusion



A business advisory group is one reason for the success of the partnership in navigating the marine and recreational-boating industry's employment needs in Ohio.

Over the past decade, the Skills for Life Marine Mechanics program has effectively filled a specific employer need for entry-level marine mechanics in Ohio's recreational boating industry despite encountering obstacles along the way. The strong relationship and consistent engagement with the business advisory board allowed recommendations for program design and improvements to be quickly implemented, ensuring that the program continues to meet employer needs. Innovative partners also worked together to devise solutions that would allow the program to continue in the face of funding challenges. The value and success of the program are evident in the multiple best practice awards (OACAA Best Practice, 2003; National Association of Workforce Board forum, 2003; Excellence in Workforce Development Innovation Award from the Ohio Economic Development Association, 2011) earned by the Skills for Life Marine Mechanics program.

Currently, funding remains a top priority for the training program because the need for entry-level marine mechanics is just as high today as it was when the program was created. Marina owners along Lake Erie noted in a recent industry report that "workforce, particularly the availability and stability of needed workforce, remains one of the larger issues facing employers." Marine trade skills training was among the six skills that businesses felt potential employees needed, according to Ohio's Lake Erie Marina Industry Business Retention and Expansion program 2015 final report.<sup>7</sup> Secure funding for this program would allow the partnership to continue to address the workforce needs of the recreational boating and marina industry in Northwest Ohio.

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<sup>7</sup>Joe Lucente and Sarah Orlando. Ohio's Lake Erie Marina Industry Business Retention and Expansion Program 2015 final report. Available at [http://comdev.osu.edu/sites/comdev/files/imce/FINAL\\_APRIL%2015\\_LAKE\\_ERIE\\_MARINA\\_FINAL\\_BRE\\_REPORT.pdf](http://comdev.osu.edu/sites/comdev/files/imce/FINAL_APRIL%2015_LAKE_ERIE_MARINA_FINAL_BRE_REPORT.pdf). Federal Reserve Bank of Cleveland

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