

PHILLY SHIPYARD, INC.



BACKGROUND

Philly Shipyard, Inc. (PSI) is a commercial shipbuilder that builds new ships in accordance with the Merchant Marine Act of 1920. This statute, also known as the Jones Act, requires all commercial vessels transporting merchandise between U.S. ports to be built in the U.S.; owned, operated, and staffed by U.S. citizens; and registered under the U.S. flag.

PSI is located on a portion of the former Philadelphia Naval Shipyard that was completely rebuilt from 1998 to 2000 to support commercial shipbuilding operations. PSI's predecessor, Kvaerner Philadelphia Shipyard, was founded in 1997 by the City of Philadelphia, the Commonwealth of Pennsylvania, the U.S. government, and the Kvaerner Shipbuilding Division. In 2005, the shipyard became part of a new company formed to build and own Jones Act tankers. In 2015, a newly streamlined company focused exclusively on shipbuilding was formed and renamed Philly Shipyard ASA, with headquarters in Oslo, Norway. Its operating subsidiary, PSI, is located in Philadelphia. PSI builds two to three ships a year. Since 2003, PSI and its predecessor companies have delivered more than 50 percent of all Jones Act ocean-going merchant ships, including containerships, product tankers, and large crude oil tankers.

Kvaerner Philadelphia Shipyard started an apprenticeship program in 2004 because it could not find skilled workers to meet its production needs. PSI's current RA program is part of a collective bargaining agreement between the 10-union Philadelphia Metal Trades Council and PSI for the period of February 1, 2015, to January 31, 2019. As of May 1, 2017, of the 642 employees and approximately 300 contractors working for PSI, 75 are apprentices.

PSI's RA program takes three years to complete. Apprentices specialize in one of four crafts: shipbuilder, welder, outfitter, and machine operator. OJL and RTI classes are provided at PSI's training center, which is located near its large production facility in the naval shipyard. Apprentices, who are on probation for the initial 2,080 work hours, master their crafts through scheduled job rotations.

A six-member Joint Apprenticeship Committee, consisting of three representatives each from PSI and the council, determines the curriculum, which is based on the standard for shipbuilding: the National Shipbuilding Research Program's production competencies for shipbuilding and ship repair.

PROGRAM MANAGEMENT

The training manager with support from the training coordinator is responsible for the candidate recruitment process; candidate selection, interviewing, and hiring; and administration of all RTI. Additionally, the training manager is responsible for the quarterly performance reviews of apprentices until they complete the program. A weld instructor reports to the training manager and is responsible for all activities during the initial 12 weeks that apprentices spend at PSI's training center.

RECRUITMENT

PSI recruits apprentices internally through word of mouth and externally through high school career and technical education programs and trade schools. PSI invites Philadelphia career and technical high school students to visit the shipyard and has worked with the Philadelphia Youth Network to invite high school students for supervised exposure to welding.

Applicants must take and pass a pre-employment assessment administered by Bucks County Community College that includes math, reading, problem solving, measurement, and mechanical aptitude. PSI interviews applicants starting with those who obtain the highest scores and continues until the list is exhausted. Acceptance into the apprenticeship program is contingent upon applicants passing background checks, drug and alcohol tests, and company physicals. Applicants must be at least 18 years old, possess a high school diploma or high school equivalency, and must be physically able to perform the trade with reasonable accommodations and without hazard to themselves or others.

Apprentices receive weekly written reviews from their supervisors and quarterly reviews from representatives of the Joint Apprenticeship Committee. The reviews cover performance on the job and in RTI as well as in safety compliance and attendance. Based on performance, the apprentice is considered for salary increases every six months.

ON-THE-JOB LEARNING

Apprentices complete 6,000 hours of OJL through scheduled job rotations determined by PSI's production needs. Apprentices work a 40-hour work week, and, based on assignments, this can be Monday to Thursday from 6:00 a.m. to 4:30 p.m. or Monday to Friday from 6:00 a.m. to 2:30 p.m.

Apprentice starting wages are 60 percent of the direct worker rate with pay increases determined by hours worked and performance. The direct worker rate is \$26.77 an hour under the current contract that expires January 31, 2019. Over a three-year period, apprentices progress from 60 percent to 100 percent of the direct worker final rate.

RELATED TECHNICAL INSTRUCTION

A total of 144 classroom hours of RTI is provided annually. RTI consists of two parts: classes provided by Delaware County Community College (DCCC) and independent learning through online Penn Foster learning modules. DCCC provides instructors and materials for classes under a contract between PSI and the Collegiate Consortium for Workforce and Economic Development.⁵⁶ Apprentices take classes in cohorts of 10 to 13 on Fridays and Saturdays. They are not paid to attend class.

Upon completion of the apprenticeship program, apprentices receive 29 college credits⁵⁷ from DCCC toward a technical studies degree.

RESULTS/IMPACT

Since the program's inception in 2004, PSI has hired 322 apprentices as of April 2017. Of this number, 140 are still with the company, including 14 production supervisors and seven who have moved into management positions. Twenty-two percent of PSI's employees are either apprentice graduates or incumbent apprentices who are completing the program.

When the recession hit in 2010, PSI lost graduates and apprentices due to significant layoffs. The workforce went from over 700 employees to under 200. Since the layoffs in 2010–2011, PSI has hired 178 apprentices, 118 of whom are still employed, for a retention rate of 64 percent.

The average age for apprentices is currently 30, whereas it was 24 prior to the recession. Successful applicants have been older since the recession. According to PSI, older, displaced workers are looking for new opportunities and have the necessary knowledge when taking the assessment to score at a higher level. Younger adults and recent high school graduates, on the other hand, have had some difficulty in passing the basic math, reading, problem solving, measurement, and mechanical aptitude assessment.

⁵⁶ The consortium is a nonprofit organization that is a partnership of Drexel University and five area community colleges: Community College of Philadelphia, Delaware County Community College, Bucks County Community College, Camden County College, and Montgomery County Community College. See www.collegiateconsortium.org/.

⁵⁷ The 29 credits consist of 20 transfer credits and nine credits that go toward apprentices' personalized education plans.

PROGRAM COSTS AND RETURN ON INVESTMENT

In 2016, it cost about \$2 million in salaries and benefits for 50 apprentices. PSI invests over \$200,000, including about \$10,000 in annual related instruction or educational costs, per apprentice during a three-year period. At this time, PSI doesn't formally measure ROI.

Apprentice salary and benefits costs for the first year are charged to overhead. During this period, the apprentices are acquiring the basic knowledge, skills, and abilities to support the company's production function. These costs are charged to the production function in the second and third year of the apprenticeship. PSI obtains funding for about 10 percent of the cost of RTI through Pennsylvania's Industry Partnership in Metal Fabrication and Transportation.⁵⁸ PSI also receives some funding for OJL from Philadelphia Works, Inc.

INSIGHTS

James Clark, who recently retired as manager of training at PSI, provided the following comments:

"Creating the workforce of tomorrow requires commitment today in developing the talent necessary to keep the skill level where it is needed. The apprentice program has been and continues to be the lifeblood of the organization, providing opportunities for individuals to learn craftsmanship, academic skills, and leadership in a structured Registered Apprenticeship program. PSI's experience is that apprenticeship is a good way for employers to develop skilled employees when employers are otherwise not able to find them. Apprentices ideally learn craftsmanship, scholarship (in job-related academic study), and leadership.

"We find that apprentices hired from within our company tend to have higher completion rates because the incumbent workers understand the rigors of working in a shipyard environment governed by a labor-management contract. In a small pilot program, 10 incumbent union workers were given the opportunity to move into the apprentice program; eight completed the program. The Joint Apprenticeship Committee approved credit for work hours on the shop floor prior to joining the apprenticeship, program and the candidates needed to complete all of the technical instruction, reach 6,000 total work hours, and be rated competent by the supervisor in their craft. Going forward, this process will be considered when we need to recruit more apprentices.

"We think that employers may want to consider a pre-apprenticeship program for entry-level employees who can learn the expectations and demands of the position and can then apply for an apprenticeship program. We do not have a pre-apprenticeship program but are exploring the idea. In a pre-apprenticeship program at PSI, participants would become familiar with the demands of working in a shipbuilding facility; the demands include extremes of temperature and noise.

"Employers that start apprenticeship programs need staff who can work well with millennials and other population groups and who can manage, coach, and listen well. An apprenticeship usually entails a long-term commitment, and it's probably not suitable for an individual seeking instant gratification.

⁵⁸ For information on Pennsylvania industry partnerships, see www.pawork.org/about-us/industry-partnership/.

"It's important to keep apprentices accountable and informed about their progress or lack of it. Employers should try to instill a sense of commitment and responsibility and show apprentices that they are an important part of the success and growth of the company.

"Employers interested in starting apprenticeship programs should reach out to other agencies and the apprenticeship support network for assistance. The U.S. Department of Labor website provides information to help guide an organization considering creating an apprenticeship program. The American Apprenticeship Round Table⁵⁹ is an organization comprised of companies with apprenticeship programs, and its members are extremely supportive in helping companies in developing a Registered Apprenticeship program."

CONTACT INFORMATION

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⁵⁹ See <http://aart-us.org/>.

PHILLY SHIPYARD, INC., REGISTERED APPRENTICESHIP PROGRAM

Historical Program Data (from date started to April 28, 2017)

Program start date	July 2004
Number of apprentices who started program since inception	322
Percentage of apprentices who completed program (completers)	26%*
Percentage of completers who are new hires vs. incumbents**	85% new hires 15% incumbents
Percentage of completers who are still working for apprenticeship employer	67%

Current Data as of April 28, 2017

Number of apprentices enrolled in program	75
Average age	30
Gender	98% male 2% female
Race/Ethnicity	72% White (not Hispanic or Latino) 20% African American (not Hispanic or Latino) 7% Hispanic or Latino (any race) 1% Asian (not Hispanic or Latino) 0% Other race/Two or more races (not Hispanic or Latino)

* This percentage is affected by recession-related layoffs, which are discussed in the Results/Impact section.

** Incumbent workers were already employed by the employer when they started the RA program.