

OBERG INDUSTRIES



BACKGROUND

Oberg Industries, a contract manufacturer of precision metal components, makes medical devices and other products for the aerospace, energy, automotive, metal packaging, housing/construction, and consumer product sectors. Based in Freeport, PA, north of Pittsburgh, Oberg has manufacturing facilities in Freeport and nearby Sarver, PA, as well as two facilities in Costa Rica. Oberg had 61 apprentices, slightly more than 9 percent of its U.S. workforce, as of February 1, 2017.

Upon starting Oberg Industries in 1948, Don Oberg began training his own workforce because of the limited number of skilled tool and die makers available in the area. His training program was approved as an RA program in 1972. Oberg's program is designed to provide a journeyman certificate in a specific skilled area of work to each apprentice who completes the requirements set forth by Oberg and the DOL.

Oberg now has 12 RA programs focusing on stamping, grinding, toolmaking, machining, and computer numerical control for machine operators and set-up operators. About half the programs, which last from two-and-a-half to four years depending upon the program of study, were added in the past three years.

The 12 programs are competency-based, and the competencies are centered on 100 to 130 different skills of which apprentices must show proficiency before graduating from the program. Oberg provides

all classroom training and on-the-job skills training during working hours at the company's two campuses in Pennsylvania. When apprentices successfully complete classes and demonstrate all on-the-job competencies, they obtain a journeyperson certificate, a merit pay increase, and a bonus for completing the program. Oberg's apprentices are usually new hires, although the program design can also accommodate incumbent workers.

Apprentices receive starting wages and benefits and are eligible for pay increases every six months based upon competencies demonstrated. Full-time apprentices are offered the same benefits as Oberg's journeypersons and administrative and management personnel. Oberg provides full-time employment to all apprentices after they graduate from the program.

The company has created its RA curriculum and has aligned the competencies with those of the National Institute for Metalworking Skills (NIMS),⁵¹ which establishes national performance standards for the metalworking industry. Oberg apprentices have the opportunity to earn at least two NIMS credentials, which are portable and nationally recognized. Oberg provides the materials and inspection portions of earning NIMS credentials; the apprentice pays the fee for the licensing test.

Oberg adjusts its RA on an ongoing basis to keep apprentices up-to-date on industry trends and customer needs. The apprenticeship program is part of a broader emphasis on training at the company. Incumbent workers, for example, receive up-skill training and machine-specific training as new versions of machines, software, or controllers become available.

PROGRAM MANAGEMENT

The RA is managed by a program manager and two directors, but the majority of the skills attainment is managed by three apprentice leads who reside in two departments. The apprentices begin the program in "boot camp," which is held in Oberg's Grinding Department and Apprentice Training Center. Once the apprentices complete boot camp, they join the production floor and rotate through several departments where they build and demonstrate competencies. Rotations normally last six months but can vary based on competency completion.

RECRUITMENT

Oberg recruits for the RA program through three separate avenues: area high school career and technical centers, a Junior Apprentice Advantage (JAA) program, and the careers page on the company's website. Candidates must pass both the National Tooling and Machining Association (NTMA) mechanical aptitude test and Butler County Community College placement tests before interviewing for the apprenticeship. Oberg also uses a behavioral assessment designed by Predictive Index. Oberg has increased the difficulty of its entry-level test because it wants to recruit and hire the best candidates; Oberg's minimum score is higher than NTMA's passing grade. Due to the extensive testing done at the start of the hiring process, there is normally not a need for remedial training; however, Oberg also works with adult education services at Butler County Community College for remediation when necessary.

⁵¹ See www.nims-skills.org/web/nims/recommendedcompetencies and www.nims-skills.org/c/document_library/get_file?folderId=416539&name=DLFE-4507.pdf.

Since 2014, Oberg has partnered on the JAA with Highlands High School in Natrona Heights, PA, located near the company's headquarters in Freeport. The company has held open houses at the school and discussed the apprenticeship program with students and their parents. Seniors can apply for a pre-apprenticeship program in which they take a manufacturing-oriented curriculum⁵² taught by Highlands' faculty and travel to Oberg at different intervals for lesson-specific enrichment, job shadowing, and hands-on learning with engineers, machinists, and other Oberg employees. Students who complete the JAA in good standing and satisfy Oberg's apprenticeship entrance requirements are offered preferred placement in Oberg's apprenticeship program upon graduation. There are no costs or fees to the student for participation in the JAA. To date, all eight JAA applicants have been accepted into Oberg's apprenticeship program. Oberg also recruits high school seniors who are spending their senior year at the company on a work-study basis as part of career and technical education cooperative education programs. In addition to school programs, Oberg solicits and reviews apprenticeship applications sent to its website once a year.

Each apprentice is assigned a mentor who is selected by production leads, supervisors, and managers. Mentors are trained in-house by the program manager and then assessed through NIMS.

ON-THE-JOB LEARNING

Apprentices take at least 2,500 hours of OJL. The majority of OJL performed on the production floor is monitored by NIMS-credentialed on-the-job trainers.

RELATED TECHNICAL INSTRUCTION

Apprentices take over 144 hours of RTI annually. Oberg partners for classroom studies with Butler County Community College, which provides an Apprenticeship Technology Certificate (26 credits).

RTI is taught by both the apprentice leads and college instructors who come to Oberg twice a week and hold classes during regular work hours. Community college professors provide instruction in a four-semester program (two fall semesters, two spring semesters). Apprentices must receive at least an 80 percent grade in all their classes. Only two apprentices failed to maintain this grade average in the past 34 years, and Oberg found other positions for them in the company.

RESULTS/IMPACT

Oberg's apprenticeship program has been an essential component for developing and maintaining a workforce with a high level of skills, which Oberg believes enables the company to meet and exceed the expectations of its customers. Oberg's apprenticeship program has successfully developed and equipped over 700 employees since it was created. The company expects it will need up to 30 apprentices annually for the next few years.

⁵² The curriculum consists of courses in engineering design, metrology, advanced geometry and trigonometry, and an introduction to precision manufacturing. It also includes a course in English and technical writing because of the importance of communication skills among workers on manufacturing contracts and sometimes between workers and business customers.

According to the company, apprenticeship is truly a win-win situation for both its employees and the company. Many apprentices have become executives, managers, engineers, and supervisors at the firm, and more than 20 have started their own companies. This business growth increases the competition faced by Oberg for both employees and customers. On the positive side, the business growth has improved the local economy by providing more people with a better living wage, thus expanding the tax base available for municipal services. It has also increased the overall machining capacity of the region, which brings larger manufacturing orders into western Pennsylvania.

Oberg's manager of corporate communications wrote in a DOL blog post that the company's apprenticeship program enhances the company's reputation, strengthens its brand, and sets it apart from its competition as a leader in advanced manufacturing. The program also helps establish long-term customer partnerships and shows that Oberg is looking to hire from its community.⁵³

PROGRAM COSTS AND RETURN ON INVESTMENT

Oberg regards the apprenticeship program as a cost to the business that is necessary to continue being a top precision machining company. After years of being unable to find employees from regular recruiting channels, Oberg's apprenticeship program allows the company to have control over the talents needed in its workforce, the company said.

Oberg's ROI calculations take into account the individual's productivity, Oberg's manufacturing costs, and the cost of quality. Historically, the ROI for the apprenticeship program has always been a positive number. For example, a 2016 review of the apprentice graduates revealed that the average ROI ranged from 131 percent to 326 percent. Typically, the ROI is negative for the first 12–18 months depending on the program. Most programs show a positive ROI by the midpoint of the program. The most dramatic increase in ROI, however, usually occurs during the last year of the program.

The company invests an average of approximately \$200,000 on each apprentice (for hourly compensation, bonuses, and benefits) and provides materials, knowledge, training, facilities, and equipment. Oberg subsidizes some costs associated with the program through grants. For example, the company receives grants from its local workforce development corporation (WDC) for some textbook costs and a state WEDnetPA⁵⁴ grant through the WDC to help reduce training costs.

INSIGHTS

Greg Chambers, director of Corporate Compliance at Oberg Industries, said: "Over the years, Oberg's RA has proven to make a difference in the quality of the employees that we are able to attain. Our greatest strengths lie in the quality of the training that is provided to each apprentice while helping them become that quality employee we desire. We just recently invested \$500,000 in our new Apprentice Training Center and will continue to expand the program for the foreseeable future.

⁵³ See <https://blog.dol.gov/2015/01/21/a-leader-in-apprenticeships-oberg-industries>.

⁵⁴ See <http://www.wednetpa.com/>.

“Our recommendations for other employers are:

1. Ensure that you have the proper training plan and curriculum in place prior to hiring the first apprentice.
2. Ensure that you take the time to identify your company’s subject matter experts to provide the training to the apprentices.
3. Work with your local community colleges, career and technical centers, and high schools to advertise your program.
4. Start small, optimize your program, then expand.

“Smaller manufacturers interested in apprenticeship may want to consider collaborating on a joint apprenticeship program, rather than incur the financial burden and time to organize individual programs. The manufacturers may also find that they have some employees who are subject matter experts and can teach apprentices.”⁵⁵

RESOURCES ON OBERG’S PROGRAM

The apprenticeship training program brochure is available at www.oberg.com/_pdf/Apprentice-Training.pdf.

CONTACT INFORMATION

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Greg Chambers, Director of Corporate Compliance, Oberg Industries, 724-294-1212 or greg.chambers@oberg.com. (A long-time member of the Pennsylvania Apprenticeship and Training Council, he chairs the board of directors of NIMS and is a member of DOL’s Advisory Committee on Apprenticeship.)

Linda Wood, Training and Learning Experience Coordinator, Oberg Industries, 724-294-1261 or linda.wood@oberg.com.

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⁵⁵ In one regional effort, manufacturers from 14 counties in Ohio and western Pennsylvania created a group-sponsored apprenticeship in 2015 for machinists and developed common standards and curriculum. The joint effort, called the Greater OH-Penn Manufacturing Apprenticeship Network, obtained a DOL grant that provides reimbursement funding to manufacturers. Five workforce development boards were involved. For information, see <https://www.pawork.org/greater-oh-penn-manufacturing-apprenticeship-network-greater-oh-penn-manufacturing-apprenticeship-network-calling-for-other-manufacturers-to-join-group-model-take-advantage-of-grant-funding/> or contact Jessica Borza at 330-853-7906 or jborza@tpma-inc.com.

OBERG INDUSTRIES REGISTERED APPRENTICESHIP PROGRAM

Historical Program Data (from 2000 to April 28, 2017)

Program start date	1977
Number of apprentices who started program since inception	288
Percentage of apprentices who completed program (completers)	56%*
Percentage of completers who are new hires vs. incumbents**	99% new hires 1% incumbents
Percentage of completers who are still working for apprenticeship employer	64%

Current Data as of April 28, 2017

Number of apprentices enrolled in program	55
Average age	28
Gender	98% male 2% female
Race/Ethnicity	99% White (not Hispanic or Latino) 1% African American (not Hispanic or Latino) 0% Asian (not Hispanic or Latino) 0% Other race/Two or more races (not Hispanic or Latino) 0% Hispanic or Latino (any race)

* Two recessions since the inception of the program each led to a temporary reduction of workforce and of apprentices.

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