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# How Manufacturers Build Skills Through Apprenticeship, Industry Partnerships

Apprenticeships are a viable and sustainable learning solution for industries suffering from a lack of highly skilled talent.

*April 20, 2017*

by Fred Dedrick



A lack of advanced skilled workers has made it hard for manufacturers across the country to build a qualified workforce. To get the type of employees they need to succeed in the current marketplace, manufacturers are cultivating in-house apprenticeship programs to grow their employees' skill set. Per 2016 data from the United States Department of Labor, there are more than 21,000 registered apprenticeship programs across the nation, and 14,422 of those are in the manufacturing industry.

Like many of its competitors, Atlantic Mold & Machining Corp., based in Sarasota, Florida, realized it had to create an apprenticeship program to build the workforce it needs. The company's goal is to design and build complex, tight tolerance custom plastic injection molds to meet the most exacting customer specifications with lead times that meet or exceed industry standards.

High-precision mold-making employees must acquire many skills, including the ability to operate and set up both computer numerical control and manual precision machining equipment, use high-tech inspection equipment to ensure quality and develop computer programming capabilities for computer-aided machining. Yet, with the decline in career and technical education in local high schools, and baby boomers with manufacturing skills retiring, talent in Sarasota with the right skill set was scarce.



“We saw a dire need to grow local talent, and we wanted to invest within our local workforce and community,” said Jennifer Behrens Schmidt, president at Atlantic Mold & Machining Corp. “Our goal has always been to train our employees and help them develop and hone the skill set they need to successfully grow in their advanced manufacturing careers.”

Atlantic Mold and Machining Corp. launched training for its plastic injection mold makers via apprenticeship in 2007. Its apprenticeship program is modeled after the Wisconsin state model. The program includes 10,400 hours of work-based learning and takes approximately five years to complete. The cumulative 10,400 hours is broken up into 10, 1,040-hour learning mastery blocks, offering the time and focus workers need to master each specific skill. Throughout their entire time in the program, apprentices are mentored by in-house journeyman mold makers who work directly with them on hands-on training opportunities.

Wages for the apprentices begin at \$14 per hour, and apprentices are given time and a half for hours that go over 40 per week. Most of the apprentices receive overtime compensation, as the work week tends to be about 50 hours. To promote learning and the cultivation of new skills, upon completion of each 1,040-hour learning mastery block the apprentice receives a \$1 per hour raise.

By the conclusion of the apprenticeship program, the Atlantic Mold and Machining Corp apprenticeship wage scale is \$24 per hour. Often, it is higher, as the company increases salary based on skill to retain top talent.

“Although our apprenticeship program has seen much success in the past decade, we have learned first-hand that having a facilitator of industry partnerships, such as CareerEdge is crucial,” Behrens Schmidt said. “They ensure that industry in a region can band together to develop a collective solution to a shared problem.”

CareerEdge Funders Collaborative is one of 30 collaboratives in the [National Fund for Workforce Solutions'](https://nationalfund.org/) network. The nonprofit hosts a Manufacturing Sector Partnership, bringing together local employers, educators and intermediaries to identify and develop workforce solutions in the southwest Florida region. CareerEdge also commissions labor market and skills gap stud-

ies; its 2012 “Manufacturing Gap Report” led to the development of a Precision Machining program at the local technical college. The collaborative also has an internship reimbursement program to incent employers to hire interns and help develop local talent in the sector. Last year the collaborative hosted an Apprenticeship Roundtable for local employers, like Atlantic Mold, to share their apprenticeship models.

While apprenticeships can solve costly and persistent talent issues, they can be expensive and difficult to establish. Businesses must isolate necessary skills, establish curriculum, find education partners, and adjust their production process. By creating industry partnerships, the National Fund for Workforce Solutions brings together companies to develop solutions like apprenticeships; by sharing responsibility across multiple businesses and community organizations, companies reduce individual cost while growing their region’s workforce.

The Atlantic Mold and Machining Corp. apprenticeship story shows that apprenticeships can be a viable solution for companies struggling to find skilled workers. It is difficult for employers to create apprenticeship programs on their own, but with the help of industry partnerships, more companies can collaborate with peers in their region to find the solutions needed to build a qualified workforce.

*Fred Dedrick is president and CEO of the National Fund for Workforce Solutions. Comment below or email [editor@CLOmedia.com](mailto:editor@CLOmedia.com) (<mailto:editor@CLOmedia.com>).*

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