

APPRENTICESHIP— *Our Little*



▲ The annual Hands-On Career Fair at Loyd E. Williams Pipe Trades Training Center provides students with an opportunity to try out various procedures.

PHOTO COURTESY OF CINDY AMARAL, LOYD E. WILLIAMS PIPE TRADES TRAINING CENTER

Secret

BY CARL CIMINO

Are you truly dedicated to your craft? If you were asked to refrain from most vices, avoid getting married, and to work for little or no compensation in exchange for learning a craft—would you be willing to commit? In the early 1800s these were the requirements young apprentices committed to in order to learn from master craftsman in fields such as carpentry and furniture making. Apprenticeships were also very gender specific; clearly Title IX was not a factor in those days. Fortunately, apprenticeships have evolved over the years! While today's apprenticeship programs continue to include the much needed hands-on training that was afforded our predecessors, apprenticeship programs now include a classroom component, doing away with the draconian practices of yore.

In California, apprentices enroll in programs that are accredited through the Office of Apprenticeship (OA) at the federal level and the Division of Apprenticeship Standards (DAS) at the state level.

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Just a few years ago, California, the largest player in apprenticeship in the country, boasted more than 70,000 apprentices. New York, the next closest state had less than half that amount.

The U.S. Department of Labor (DOL) describes an apprenticeship as "a combination of on-the-job training (OJT) and related instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation." As part of their commitment to DAS, apprenticeship programs monitor a student's OJT hours and partner with a Local Educational Agency (LEA) to develop the supporting

classroom component. The goal is for the instruction in the classroom and the instruction on the jobsite to complement one another—promoting stronger competencies on both sides of the equation.

Related supplemental instruction focuses on the principles an individual must understand in order to learn on the jobsite. Related math and science classes, as well as safety- and building code-related courses, lay the groundwork for jobsite learning. LEAs are typically community colleges or regional career and technical education (CTE) centers that help with curriculum development,



PHOTO COURTESY OF CINDY AMARAL, LOYD E. WILLIAMS PIPE TRADES TRAINING CENTER

▲ The Loyd E. Williams Pipe Trades Training Center offers state-of-the-art labs for hands-on learning, including the backflow lab shown above.

instructor training and evaluation, so that classroom experience is up to par with a college environment.

Many of the programs sponsored by building trades unions receive help from their national unions in the form of fully developed curriculum and accompanying textbooks, as well as instructor training programs which are often the envy of the industry. These programs have worked with organizations like NOCTI to create valid and reliable assessments, as well as curriculum which contains daily lesson plans and presentation materials covering every moment of class time. To the local union's credit, this kind of development is supported by their own resources and generally very little public funding is utilized.

A Comprehensive Program for Journeymen in San Jose

The Loyd E. Williams Pipe Trades Training Center in San Jose, California,

prides itself in going beyond the scope of traditional apprenticeship by offering a comprehensive "Journey Level Training Catalog," thus encouraging journeyman graduates to continue their training. The catalog contains a full slate of courses that can be utilized to add new skills in the form of certification such as medical gas installer, backflow prevention, foreman training, green awareness, and biopharmaceutical piping. The center also offers a variety of no-cost refresher courses to assist journeymen in updating skills in a process they may not regularly use in the field, such as rigging and tube bending.

Because of its success and popularity, gaining entry into the center's programs sometimes requires patience. When an opening date is advertised over a one-week period in July, between 250 and 300 candidates apply for approximately 45 openings. In September, applicants are given exams in math, mechanical reason-

ing and employability skills. NOCTI's intimate knowledge of the standards and curriculum made it the natural choice for creating a tool to measure the abilities of the applicants; this offers a means to insure those who qualify are able to succeed in the program. Qualifying individuals are placed on a waiting list based on the year of their test and their weighted, aggregate score.

Based on a number of factors, these individuals are hired by an employer and enrolled in a three-night workplace readiness course that informs them and prepares them for the rigor of the trade they have chosen. After a period of demonstrated commitment, they begin their five-year apprenticeship. The starting pay of \$20 per hour plus pension and medical benefits is clearly a big draw. Combine that with the prospect of earning more than \$50 per hour at the conclusion of their apprenticeship, and this becomes all

the motivation most applicants need.

Apprentices are evaluated by their employers every month in their first year and every six months thereafter. They are also given access to a "field coordinator" who visits jobsites and reviews the employer evaluations in addition to OJT reports. The field coordinator acts as a mentor, providing assurance to apprentices concerned about their progress and evaluating whether the apprentice is being exploited by his/her journeyman, foreman or employer. In the past, unscrupulous employers would teach a person a singular work process, like drainage piping for example, and never allow the apprentice to move on to other aspects of the trade. Unfortunately, at the end of the apprenticeship, the individual was so specialized in a singular process that they were undesirable to employers looking for plumbers skilled in the entire trade. The field coordinator is a primary reason the center boasts a graduation rate of more than 85 percent.

Reaching Out

Part of the center's success can be attributed to the outreach in neighboring schools. Center leaders visit high schools, middle and elementary schools speaking to students about the opportunities available in plumbing-related trades. Local CTE programs are also visited; as part of the outreach to the plumbing and HVACR classes, students receive a tour of the training facility. The facility is 96,000 square feet and houses multiple labs and hands-on working areas.

The center hosts a Hands-On Career Fair during which students can learn and try out various construction trades. Center director Carl Cimino enthusiastically notes, "I could also spout off several ethereal reasons for the center's popularity, like the satisfaction one draws from hard work, but let's face it, almost all are here because the training is excellent and the compensation package is top shelf!"

Ensuring a Future of Skilled Tradespeople

Building Trades Unions have built apprenticeship programs with a strong focus on the welfare of the apprentice. They have structures in place in national and local training programs that are a boon to the industry, and have provided the foundation for a strong cooperative working relationship between labor and management. **I**

Visit our Web site at www.pipetradelearning.org for a virtual tour, or key in "pipe trades training center" to take part in a facility tour on YouTube.

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