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## The Journey of a Journeyman Steamfitter

In the trades, the journey-level workforce is synonymous with advanced skill, quality assurance and high productivity. The “journeyman difference” is evident on job sites, from top-notch work to safety compliance, and projects are more likely to be on time and on budget. Becoming a journeyman steamfitter is no small feat. It takes hard work, dedication, at least five years and thousands of on-the-job hours. Steamfitters Local 601 has a legacy of training and preparing the best steamfitters. That’s why Local 601 is known as the Keepers of the Craft, passing on the necessary specialized skills and traditions to the next generation.

Here are five ways comprehensive training through the Local 601 apprenticeship equips signatory contractors with a more reliable and efficient workforce of journey-level tradespeople.

### 1 TRAINING THROUGH APPRENTICESHIP

Apprenticeships are creating new generations of skilled tradespeople. The United Association (UA) Steamfitters Local 601 provides the most comprehensive five-year apprenticeship program available where future steamfitters receive top-tier training and preparation in every construction and service specialty from HVAC/Mechanical to Pipeline/Gas Distribution. With the mentorship of UA-certified instructors and experienced journeymen, apprentices learn every facet of the trade to develop not only technical expertise but also a safety mindset, problem-solving skills and a commitment to quality. Research shows unions have fewer safety citations and are more productive. Union worksites are 19% less likely to have an OSHA violation,<sup>1</sup> and union mechanical contractors are 15% more productive, resulting in 4% less costs.<sup>2</sup>

The Local 601 apprenticeship is a competitive program comparable to college-level courses, with the exception that apprentices are working and receive pay. Only the best applicants are admitted to the 601 apprenticeship program, and they must be smart, reliable, confident, ambitious and tenacious. Every year less than one in four applicants is admitted to the program. Candidates must pass assessments in math, reading, mechanical skills and spatial awareness.

**UA LOCAL 601 AND ITS  
PARTNERS INVEST OVER  
\$90,000  
IN EACH APPRENTICE.**

## 2 CLASSROOM & ON-THE-JOB-TRAINING

Local 601's rigorous five-year apprenticeship combines classroom theory with real-world application under the watchful eyes of union journeyman tradespeople. Cumulatively, apprentices participate in over 1,200 hours of classroom instruction and have over 8,750 hours of on-the-job training. Steamfitter apprentices split their time between classroom education and practical, on-the-job training working full-time with signatory contractors. They attend day school once a week for two and a half years to learn foundational skills. Early classes focus on understanding system components and mastering theories of operations and teaching apprentices how different components work together as part of a larger system. Apprentices also attend night classes throughout most of the five-year program to build on their technical knowledge and skills.

During the apprenticeship, apprentices work full-time for signatory contractors, turning classroom instruction into real-world experiences, such as assembling and installing piping systems. Early tasks involve organizing materials and installing pipe hangers, and gradually apprentices progress to more complex work. Service apprentices start with tasks such as changing air filters

**Local 601 provides us with the caliber of manpower we need to help meet tight timelines and schedule restraints. The strong training program has helped continue to grow our workforce and ingrained a quality and safety mindset.**

- Brandon Quinn, President and CEO of Lee Mechanical

and routine equipment maintenance. Then, they move on to more complicated repairs and system diagnostics. As classroom and on-the-job training reinforce one another, apprentices begin to develop a deep understanding of their jobs. They transition from basic tasks to more advanced responsibilities as they become more proficient.



## 3 A SAFETY CULTURE

Local 601 apprentices are taught to make safety second nature. Early on, steamfitter apprentices learn that protecting themselves and their team is just as important as getting the job done, including avoiding injury through proper equipment use and always wearing proper PPE. Apprentices also receive a variety of certifications, including OSHA 30, rigging/signaling, electrical safety and more. Signatory contractors provide additional safety training based on project and job site specifications.

## 4 REQUIRED CERTIFICATIONS & EVALUATIONS

Around the midpoint of their training, apprentices undergo a fundamental skills evaluation including a written test and practical skills demonstrations. The goal is to assess progress towards meeting industry standards. This provides critical feedback and helps instructors and signatory contractors gauge their apprentices' capabilities.

Certifications are also essential for their field and are of tremendous value to the individual apprentice. For example, construction steamfitter apprentices pursue various welding certifications. They become skilled at creating water-tight or pressure-resistant joints with precision. As part of assessments, welds are x-rayed to be sure there are no flaws that could lead to system failures. For HVAC steamfitters, apprentices must earn certification from the Environmental Protection Agency (EPA) to safely manage refrigerants and prevent environmental harm from greenhouse gas emissions. These certifications are milestones and verification that prove apprentices can handle the technical demands of the trade. It's no wonder project owners rate union labor as having higher skill level than open shop.<sup>3</sup>



tested on their ability to methodically approach issues and apply their classroom knowledge in practical scenarios.

“This final exam demonstrates that apprentices are familiar with the tools, systems and processes and can perform quality work and problem-solve on a job site at a level necessary to be an entry-level journeyman,” said Local 601 instructor and journeyman Neil Mani.

Passing the exam earns the apprentice their journeyman card, signifying they have the skills and knowledge to work independently in the field. Local 601 signatory contractors employ these journeymen-level tradespeople on projects throughout Wisconsin, from the Wisconsin Center to the Medical College of Wisconsin and the State Capital.

After earning their journeyman card, steamfitters must remain lifelong learners. Technology, tools and techniques are constantly evolving. Local 601 provides journeymen with the opportunity for continued education, advanced welding certificates and more. This means signatory contractors employ the best of the best with the most up-to-date knowledge and training.

## 5 THE JOURNEYMAN TEST & LIFELONG LEARNING

Through the Local 601 training program, apprentices are constantly learning. The program teaches the skills to help apprentices become expert steamfitters and builds the confidence needed to be a successful journeyman tradesperson. After five years, apprentices take a journeyman exam where they must test various skills, from measuring and cutting to assembling piping systems based on blueprints. Passing the journeyman exam shows they can apply their knowledge to real-world projects. Service apprentices must diagnose system problems during the exam and propose a solution. Apprentices are

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## A STEAMFITTERS LOCAL 601 PARTNER

Choosing the right partner for your next construction project can help you get your project done on time and on budget. For the best outcome, use a Steamfitters Local 601 signatory contractor when you need to hire a steamfitter. Our members are experts in the trade with broad experience and top-notch training. **To access a complete list of Steamfitters Local 601 Signatory Contractors, visit our [website](#).**

Sources: <sup>1</sup>[DOL](#) | <sup>2</sup>[Biz Times](#) | <sup>3</sup>[MCAA](#)

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