THE COMPLETE
Welding Career Path
GUIDE for PARENTS
THERE’S A BRIGHT FUTURE IN WELDING

High school graduation is an important milestone—for both your child and you. It’s the end of one stage of his or her life, and the beginning of another. As a parent, you want to make sure the “next step” leads to a successful future as an adult in the real world.

For many parents, the hope or expectation is for their child to go to a prestigious university, earn a degree, start a professional career and climb the ladder to financial success. While this can still be the path for many young adults, the education and career landscapes are very different today than when you were coming out of high school.

Between the rising cost of four-year colleges, crippling student loan debt and competitive job market, a bachelor’s (or even master’s) degree is no longer the golden ticket to a stable career. In fact, there are other paths that may be a better investment and open the door to exciting career opportunities. Welding is one of those fields.

In this guide, you’ll learn everything you need to know about careers in welding and how to share this information with your child.
WELDING 101

Welding is the process of joining metals together. Using extremely high heat and, in some cases, filler materials, welders melt the two separate pieces, fuse them together and enable them to function as one, unified piece. This process is critical for building, maintaining and repairing metal structures that require high-strength construction such as buildings, bridges, automobiles, ships and many more items we all use in our daily lives.

Welding is a skilled trade that is utilized in many industries. The work can be done in a fabrication shop, large manufacturing facility or on-site in virtually any location or environment.

A career in welding offers many benefits:

> Jobs are in high demand
> Training options that are cost-efficient and require little student debt
> Good starting salaries and opportunities for advancement
> Options to earn specialty certifications
> Opportunities to travel or work in one location
> Flexible work schedules
**WELDING JOBS— IN-DEMAND AND HIGH-PAYING**

Welding is one of the fastest-growing professions in the country. According to a 2019 EMSI report, **NEARLY 375,000 NEW WELDERS WILL BE NEEDED IN THE U.S. BY 2023.**

<table>
<thead>
<tr>
<th>Job</th>
<th>What they do</th>
<th>Median national salary</th>
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</thead>
<tbody>
<tr>
<td>Welding fabricator</td>
<td>Form and join metal to make sturdy products</td>
<td>$36,000</td>
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<tr>
<td>Shipfitter</td>
<td>Help build and repair ships—both commercial and military</td>
<td>$54,000</td>
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<tr>
<td>Pipeliner</td>
<td>Construct and repair pipeline systems for oil, gas and other industries</td>
<td>$54,000</td>
</tr>
<tr>
<td>Boilermaker</td>
<td>Build, install and maintain boilers, pressure vessels, tanks and more</td>
<td>$65,000</td>
</tr>
<tr>
<td>Pipefitter</td>
<td>Fabricate, install and repair pipe systems</td>
<td>$54,000</td>
</tr>
<tr>
<td>Ironworker</td>
<td>Erect and dismantle metal frameworks of buildings, bridges, antennas and other structures</td>
<td>$61,000</td>
</tr>
<tr>
<td>Robotic welding technician</td>
<td>Operate and maintain high-tech robotic welding equipment used for fabrication</td>
<td>$39,000</td>
</tr>
<tr>
<td>Underwater welder</td>
<td>Maintain and repair ships or other aquatic structures</td>
<td>$77,000</td>
</tr>
<tr>
<td>Welding educator</td>
<td>Teach and demonstrate essential welding skills and safety practices to aspiring welders</td>
<td>$63,000</td>
</tr>
<tr>
<td>Welding supervisor</td>
<td>Oversee operations of a project, including schedule, materials, staffing, safety procedures and more</td>
<td>$57,000</td>
</tr>
<tr>
<td>Welding inspector</td>
<td>Review and approve welding procedures to ensure proper quality and safety compliance</td>
<td>$63,000</td>
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</table>
One unique aspect of welding is there are multiple ways for an individual to get trained and start a career. The most common paths are attending a technical school for a welding certificate program or enrolling in a community college to earn an associate degree in welding technology.

Other options include participating in an apprenticeship for paid on-the-job training through an employer or trade association, as well as earning a welding-related bachelor’s degree that adds education in engineering and metallurgy.

Advantages of technical school or community college

- Short program lengths – enter the workforce faster
- Affordable cost – less student debt and stress
- Focused training – no unnecessary general study courses
- Small class sizes – more interaction with the instructor
- High job-placement rate – get a job quickly after training

Taking the AWS Certified Welder test

After completing a training program, it’s recommended that your child becomes an AWS Certified Welder by passing an industry-recognized certification test. Having this certification can give a welder an advantage in the job market and may lead to a higher salary.
AFFORDABILITY OF WELDING SCHOOL

These days, tuition costs and student debt are major considerations when deciding on an educational path or choosing a specific school. The numbers are staggering—students earning a bachelor’s degree today leave school with an average of around $30,000 in student loan debt—and take an average of 21 years to pay them off.

Pursuing welding training through a technical school or community college comes with a much more manageable price tag. The average cost to complete welding school is $33,000 with an average student debt load of $10,000.

<table>
<thead>
<tr>
<th></th>
<th>Welding School</th>
<th>Four-year College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average cost to complete program</td>
<td>$33,000</td>
<td>$127,000</td>
</tr>
<tr>
<td>Average student debt</td>
<td>$10,000</td>
<td>$30,000</td>
</tr>
</tbody>
</table>

Financial aid

If your child goes the route of a technical school or community college, he or she can still take advantage of financial aid opportunities to further reduce the overall cost of education.

- **Scholarships**—The American Welding Society offers scholarships ranging from $1,000 to $3,000. Trade organizations and technical schools also have scholarships available.

- **Grants**—Your child may be eligible for need-based grants such as the Pell Grant and Federal Supplemental Education Opportunity Grant (FSEOG).

- **Federal and private loans**—Many options for student loans are available at low-interest rates and flexible repayment options.

- **Veterans’ benefits**—If your child is or was in the military, he or she can use their GI Bill benefits to pay for welding school.

**TIP** Make sure your child fills out a FAFSA form to be eligible for government and financial aid.
To illustrate the financial benefits and opportunities of a welding career, let’s take a look at two students pursuing different careers—and see how they fare, on average, over a period of 10 years.

**LONG-TERM FINANCIAL OUTLOOK**

**Student A**
- ATTENDS UNIVERSITY, earns a bachelor’s degree in **4 YEARS**
  - Average cost of completing a BACHELOR’S DEGREE: **$127,000**
  - AVERAGE STUDENT DEBT: **$30,000**
  - AVERAGE SALARY with a bachelor’s degree: $49,900 x 6 years = **$299,400**
  - **Total return on investment over 10 years ▲**

**Student B**
- ATTENDS TECHNICAL SCHOOL, earns a welding certificate and passes the AWS Certified Welder test in **18 MONTHS**
  - AVERAGE COST OF COMPLETING A TECHNICAL SCHOOL PROGRAM: **$33,000**
  - AVERAGE STUDENT DEBT: **$10,000**
  - AVERAGE SALARY OF A WELDER: $44,000 x 8.5 years = **$374,000**
  - **Total return on investment over 10 years ▲ ▲**

As you can see, not only does the welding program have a much lower education cost, but the ability to start a career 2.5 years sooner allows Student B to realize a much higher return on investment.

Plus, by not being burdened with a high amount of student loan debt, Student B will have more financial flexibility to purchase a home sooner and contribute to retirement savings earlier in his or her career, which will greatly benefit their long-term financial outlook.
If you didn’t know much about welding until now, you may have some misconceptions about careers in the field and the type of students who pursue them. Allow us to set the record straight.

<table>
<thead>
<tr>
<th>Myth</th>
<th>Reality</th>
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<tbody>
<tr>
<td>It’s for people who can’t get into college</td>
<td>There’s more to welding than holding a torch. Skilled welders need to understand the science of metal and have the math comprehension to make precise calculations. Students who have an interest and excel in STEM can thrive in the welding industry.</td>
</tr>
<tr>
<td>It’s a manual labor job with no room for advancement</td>
<td>Becoming an AWS Certified Welder can give individuals an advantage in the job market. There are also numerous advanced training programs and certifications a welder can pursue to advance his or her career.</td>
</tr>
<tr>
<td>It’s too dangerous</td>
<td>While there is some risk involved in welding, there are rigorous safety practices that all welders learn during training to keep everyone as safe on the job as possible.</td>
</tr>
<tr>
<td>It doesn’t pay very well</td>
<td>Many careers in the welding field come with high starting salaries and good benefits packages. For experienced or specialty welders, it’s very possible to make over $100,000 a year.</td>
</tr>
<tr>
<td>Industrial jobs are going away</td>
<td>Robotics and automation are opening up new opportunities for welders, especially younger ones that can quickly pick up new technologies. There’s more job security in welding than other careers that can be outsourced overseas such as computer programming.</td>
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</tbody>
</table>
What does it take to be a good welder? While training and practice can help students improve their skills, there are some natural abilities that lend themselves to the craft. If your child demonstrates these attributes, he or she may be well-suited for a career in welding.

**SKILLS NEEDED FOR WELDING**

- **Math and Problem-Solving Skills**
- **Physical Strength and Stamina**
- **Hand-Eye Coordination and Manual Dexterity**
- **Attention to Detail**
- **Hard-Working Attitude**
- **Good Teamwork**
- **Interest in Science and Technology**
Helping your child navigate the next steps and start a career path can be a tricky subject to talk about. You know your child the best, and can anticipate how he or she will react to adding another option into the mix.

If you feel that welding can be a viable career to consider, here are tips for presenting this information.

- Ask your child what he or she knows about welding and if they ever thought about it as a career after graduation
- If your child still has a year or more in high school, look into a career tech program that could be a good introduction to welding
- Discuss the benefits and career opportunities that are presented in this guide
- Have an honest discussion about the full costs of all educational options, including four-year colleges, community colleges and technical schools
- Explain the long-term financial implications of student loan debt and starting a career early
- Avoid pressuring your child into a decision or steering him or her based on your personal beliefs
- Research and visit community colleges or technical schools in your area

Above all, the most important things you can do are give your child all the information they need and then support their decision.

What to do next

If you and your child are interested in learning more, visit CareersInWelding.com. You’ll find:

- Descriptions and salary information on different welding careers
- Search feature for finding a welding training program in your area
- Information on welding scholarships

CareersInWelding.com