

Understanding the Local Labor Market

Promising Career Pathways in Pittsburgh and Allegheny County

Focus: Welders

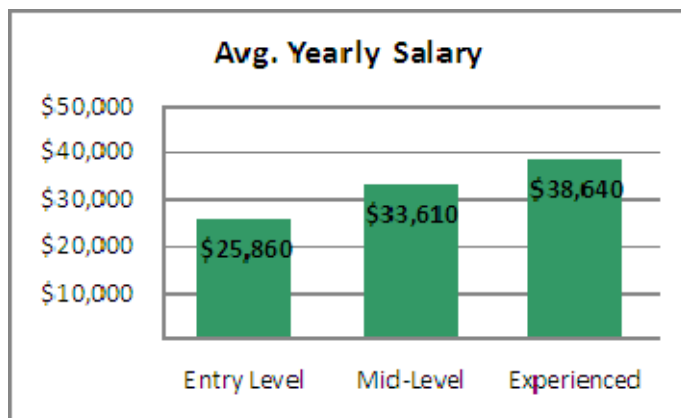
Understanding the Local Labor Market: Promising Career Pathways in Pittsburgh and Allegheny County is a useful resource for career counselors and other professionals responsible for helping jobseekers make informed decisions about employment and training. Featured occupations are selected on the basis of vacancies, wages and benefits, and opportunities for advancement.

What do welders do?

- Welding is the most common way of permanently joining metal parts by applying heat to metal pieces. The heat melts and fuses the metal to form a permanent bond.
- Because of the strength of welded bonds, they are used in construction of buildings, bridges, and other structures; in automobile manufacturing and repair; in aerospace applications; and in thousands of other manufacturing activities.
- There are approximately 100 different types of welding.
- The bulk of welding jobs are in the construction and commercial repair fields.

What are wages, benefits, and work conditions for welders?

- On average, welders earn more in the Pittsburgh area than they do nationally.
- Welders are frequently employed in the Architectural and Structural Metals and Commercial Machinery Repair/Maintenance industries or are self-employed.
- Welders need good eyesight, hand-eye coordination, and manual dexterity. They should be able to concentrate on detailed work for long periods and be able to bend, stoop, and work in awkward positions.
- Welders increasingly need to be willing to receive training and certification.
- Welders can be in a climate controlled warehouse or an open-air construction site. Field jobs can be slightly more dangerous, but as long as employees follow established safety precautions, welders personal risk is marginal.



Source: PA Dept. of Labor & Industry, Center for Workforce Information & Analysis (www.paworkstats.state.pa.us/)

What do welders like about their jobs?

- Welding is a worthwhile career for both men and women as many welding positions require precision and attention to detail, not physical strength.
- Welders like that their jobs are both challenging and high-paying.
- Most companies offer fairly competitive benefits packages; trade unions also provide enhanced work conditions and benefits.

What are advancement opportunities and related occupations?

- Demand is particularly high for welders who are certified in structural shielded metal arc, gas metal arc and gas tungsten arc welding on special alloys such as stainless steel and aluminum.
- Welders who can work with 'exotic' non-traditional metals also earn more and are in higher demand. Combination skills can be picked up at vocational schools, co-ops and work with varied employers.
- Welders can advance to more skilled welding jobs with additional training and experience. For example, they may become welding technicians, supervisors, certified welding inspectors, or instructors. Some experienced welders open their own repair shops.
- Certain industries that employ welders will have larger numbers of workers nearing retirement age; job prospects should be particularly promising in transportation equipment manufacturing, machinery manufacturing, primary metal manufacturing and various building trades.
- Other types of metal workers include machinists; machine setters, operators, and tenders; tool and die makers; sheet metal workers; boilermakers and steamfitters.

How many openings are there for welders?

- Job prospects look promising as employers report difficulty finding enough qualified people.
- By 2014, there will be approximately 1,000 welder opportunities in Allegheny County. During that same period, a large percentage of welders are expected to retire, which will drive job growth and open up an average of 31 positions each year.
- Since January 2007, there have been 27 requests for welders via PA CareerLink's database.

How can I become a welder?

- Training ranges from a few weeks of school or on-the-job training for low-skilled positions to several years of combined school and on-the-job training for highly skilled jobs.
- Formal training is available in high schools, vocational schools, and postsecondary institutions, such as vocational-technical institutes, community colleges, private welding schools and various building trades.
- While some employers provide basic training, they prefer to hire workers with experience or more formal training. Certification and education requirements differ for each employer. Almost all require a welding skills test as part of the hiring process.
- Courses in blueprint reading, shop mathematics, mechanical drawing, physics, chemistry, and metallurgy are helpful.
- An understanding of electricity also is very helpful, and knowledge of computers is gaining importance, especially for welding machine operators, who are becoming more responsible for the programming of computer-controlled machines, including robots.
- The most common path is through a vocational school or an apprenticeship program with a trade union.
- Employers comment that graduates of votech schools are eager to work and have fresh, relevant skills. Students are often hired while still in school.
- Highly skilled welders often are trained to work with a wide variety of materials in addition to steel, such as titanium, aluminum, or plastics.
- Some welders perform routine jobs that already have been planned and laid out and do not require extensive knowledge of welding techniques.

How do I find out about welder jobs?

- **Pittsburgh/Allegheny County CareerLink** has job postings for these positions (contact 1-866-317-JOBS or visit www.careerlinkpittsburgh.com to learn more).
- **Welding.com** lists multiple openings by region. <http://www.welding.com>.
- **Buildersguild.com** lists multiple openings by region with various builders guilds. <http://www.buildersguild.com>.

Where can I get training locally?

- **CCAC West Hills Center.** 412-788-7500, www.ccac.edu. Welding Technology Certificate or Welding Technology Associate Degree.
- **Triangle Tech, Inc.** 1-800-874-8324, www.triangle-tech.com. Welding and Fabrication Technology certification.
- **New Castle School of Trades.** 1-800-837-8299, www.ncstrades.com. Combination Welding Certification. This diploma program provides the training for entry-level employment in welding and lasts for 40 weeks.
- **K.W.C. Educational Center.** 412-321-2715, www.theweldingauthority.com. Welding training certification
- **Dean Institute of Technology.** 412-531-4433, www.deantech.edu. Occupational associate degree in welding.
- **Steamfitters Local 449.** 412-481-0333, www.ua449.com. Offers a variety of welding programs.

Can I get help paying for training?

- Limited training funds may be available through Pittsburgh/Allegheny County CareerLink.
- Private programs offer limited financial aid for those who qualify.

Remember...

Labor markets are affected by economic, social, and institutional factors that are difficult to predict. No one can forecast perfectly how many jobs will be available, or whether there will be too many or too few workers to fill those jobs. The reality is that employment is never a guarantee, even for individuals who pursue training in demand occupations.

The Three Rivers Workforce Investment Board (TRWIB) is charged with promoting a coordinated and accountable employment and training system for Pittsburgh and Allegheny County. Responsibilities include setting and monitoring local performance standards, chartering CareerLink comprehensive and affiliate centers that provide a range of services to jobseekers and employers, and certifying qualified training providers. Board members are appointed by Mayor Luke Ravenstahl (City of Pittsburgh) and Chief Executive Dan Onorato (Allegheny County).

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