

Understanding the Local Labor Market

Promising Career Pathways in Pittsburgh and Allegheny County

Focus: Electricians

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 electricians do?

- Electricians install, connect, test, and maintain electrical systems for a variety of purposes, including climate control, security, and communications. They usually specialize in either construction or maintenance, although more are doing both.
- Key elements of the job include: reading and following blueprints and wiring schematics, using a variety of tools to install and secure wiring, fixtures, or equipment, using test equipment to verify proper installation and operation, and confirming that new or repaired installations meet fire and safety code standards.

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

- Electricians work both indoors and out; at construction sites, in homes, and in businesses or factories. Work may be strenuous at times and include bending conduit, lifting heavy objects, and standing, stooping, and kneeling for long periods of time.
- They must follow strict safety procedures to avoid injuries such as electrical shock, falls, and cuts.
- Electricians work 40 hours per week, although overtime may be required. Those in maintenance work may work nights and weekends, and may need to travel to the worksite. The average annual wage is \$48,190.

What do electricians like about their jobs?

- Electricians enjoy analyzing information and evaluating results to choose the best solution and solve problems.
- They like to perform physical activity, which includes climbing, balancing, lifting, walking, stooping, and handling materials.
- Electricians enjoy inspecting equipment, structures, or materials to identify the cause of errors, problems, or defects.
- They enjoy the feeling of helping someone through their job.

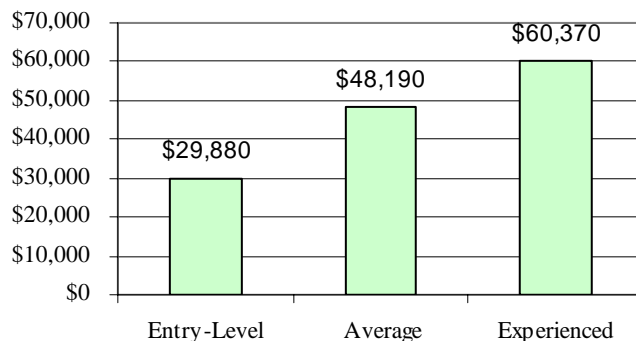
What are advancement opportunities and related occupations?

- Experienced electricians can advance to supervisor or can become electrical inspectors. In construction, they may become project managers or construction superintendents.
- Electricians have the opportunity to become entrepreneurs and start their own business.
- For those who seek to advance, the ability to communicate instructions and safety precautions in both Spanish and English has become increasingly important as the percentage of Spanish-speaking workers has increased.
- Related occupations that combine manual skill with knowledge of electrical materials and concepts include: heating, air-conditioning, and refrigeration mechanics and installers; line installers and repairers; electrical and electronics line installers and repairers; electronic home entertainment installers and repairers; and elevator installers and repairers.

How many openings are there for electricians?

- The PA Department of Labor and Industry estimates that there are approximately 3,430 electricians working in Allegheny County.
- The number of electricians working in Allegheny County is projected to decrease slightly through 2012, when 3360 electricians are projected to be employed.
- Annually, there are expected to be 61 job openings. These job openings are the result of replacement of the current workforce and not due to growth.
- 179 local electrician jobs were posted on the Pittsburgh/Allegheny County CareerLink website (www.careerlinkpittsburgh.com) between January 2006 and June 2006.

Annual Wages for Electricians



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

How can I become an electrician?

- Most electricians learn the trade through apprenticeship programs.
- Apprenticeship program applicants usually must be at least 18 years old, have a high school diploma or GED, be good at math and English, and may have to pass a test.
- Apprenticeship programs generally last for four years. Each year includes at least 144 hours of classroom instruction and 2,000 hours of on-the-job training.
- Classroom instruction includes: blueprint reading, mathematics, electrical code requirements, and safety and first aid. They may receive specialized training in soldering, communications, fire alarm systems, and cranes and elevators.
- For on-the-job training, apprentices work under the direct supervision of an experienced electrician. Initially, apprentices may drill holes, set anchors, and attach conduit. Later, they may measure, fabricate, and install conduit, as well as install, connect, and test wiring, outlets, and switches.
- To complete the apprenticeship and become electricians, apprentices must demonstrate mastery of an electrician's work as evaluated by the experienced electrician.
- Some people choose to have their classroom training before seeking a job. Training is offered by a number of organizations, including many of the ones to the right, in affiliation with local unions and contractor organizations. Employers often hire students who complete these program and usually start them at a more advanced level than those without the training.
- Most localities require electricians to be licensed. The requirements for licensure can vary depending on location. Electricians must pass an exam that tests their knowledge of electrical theory, the National Electric Code, and local electrical and building codes to obtain licensure in.

How do I find out about electrician jobs?

- **Pittsburgh/Allegheny County CareerLink** has job postings for these positions (contact 1-866-317-JOBS or visit www.careerlinkpittsburgh.com to learn more).
- Online search engines have postings for electricians.

Where can I get trained locally?

Community College of Allegheny County (CCAC) — www.ccac.edu, 412-269-4900.

Provides training for electricians in partnership with the Joint Apprenticeship Training Committee and the International Brotherhood of Electrical Workers Local 5.

Dean Institute of Technology — www.deantech.edu, 412-531-4433. Degree program in electrical technology.

Forbes Road Career and Technology Center — www.forbesroad.org, 412-373-8100.

Offers a training program for aspiring electricians.

Parkway West Career and Technology Center — www.parkwaywest.org, 412-923-1772.

Offers a program in electrical construction/maintenance.

Steel Center AVTS — www.scavts.net, 412-469-3200.

Offers a program in electrical construction.

Triangle Tech — www.triangle-tech.com, 412-359-1000,

Associate in Specialized Technology Degree (AST) in Maintenance Electricity & Construction Technology or a Diploma in Residential and Light Commercial Electricity.

Where can I get more information about apprenticeship programs for electricians?

- **Independent Electrical Contractors, Inc.** (www.ieci.org) provides information on independent apprenticeships.
- **International Brotherhood of Electrical Workers** (www.ibew.org) provides information on union apprenticeships and training programs.
- **National Electrical Contractors Association** (www.neca.org) provides information on union apprenticeships and training programs.
- **National Joint Apprenticeship Training Committee** (www.njatic.org) provides information on union apprenticeships and training programs.

Can I get help to pay for training?

- Financial aid may be available for training associated with accredited programs.
- Limited training funds may be available through Pittsburgh/Allegheny County CareerLink.

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 community 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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