



WHY ELECTRICIANS ARE IN SUCH HIGH DEMAND



Tracey Arvin

Journeyman Electrician, associate professor and chair of the Electrical Technology programs at Benjamin Franklin Institute of Technology (BFIT).

This positive job outlook is partly what attracted current Electrical Technology associate degree candidate Ian McMullen, 28, to the field. "I had an interest in electricity and then I learned that there are lots of opportunities opening up," he says. "I have a few friends who are apprentices and their lives are shaping up really nicely. It's a field where we'll never find ourselves without jobs."

Workers are also needed because of the ongoing need for licensed electricians who can reliably handle smaller projects. "As anyone who has owned a home or rented an apartment knows, when you need help with something simple, like a light switch or outlets, it's hard to get a qualified tradesperson," says Arvin.

McMullen is joining a growing number of young people choosing a hands-on college education over a traditional liberal arts degree. "Picking up tools, climbing ladders and working with your hands is not for everybody, but for those who enjoy these things, it's very rewarding," says Arvin.

There has never been a better time to enter the field of Electrical Technology. Jobs in this industry are projected to grow by 23% by 2020. What's sparking this remarkable growth? Mostly, it's because so many Journeyman and Master Electricians are approaching retirement age and a new generation of electricians are needed to replace them. "There is a huge demand for apprentices who can move up through the ranks and start their businesses," says Tracey Arvin, licensed Master and

According to BFIT professor Charlie Palmieri, who has been a Master Electrician for decades, this career is a good fit for people who like to feel like they've accomplished something new each day. "Most people don't realize how fun and rewarding it is to work in the industry! I'm never bored. I'm intently focused on what I'm doing when I work, the pay is good and I'm not locked up inside a building all day. It's dynamic work. I can install the same product and end up with a different challenge each time."

There is an increased demand for residential, commercial and industrial projects, including new opportunities in solar power. "In fact, there are more employers looking for qualified apprentices than students who can fill those positions right now," Arvin says. This gives those graduating from the program a wide variety of choices as to where to work and who to work for.

"Many students get several job offers, and contractors often call faculty to recruit apprentices."

Tracey Arvin, Associate Professor, and Department Chair

Many students get several job offers, and contractors often call faculty to recruit apprentices. "In the past several years, every single graduate who wanted to pursue a job as an electrical apprentice was offered a job," says Arvin. "That's pretty powerful."



600
Hours of classroom instruction



566,930
Estimated number of jobs for electricians in the U.S.



\$28-\$39
Mean hourly rate for electricians in MA

Sources: Independent Electrical Contractors Association and U.S. Bureau of Labor

ALUMNI PROFILE: RICK TOWLE

Rick Towle has always been interested in electricity. He was the kind of kid who liked science and was fascinated by how things worked, and their many electrical components.

"I was pretty sure I wanted to be an electrician since it allows you to work in a lot of different areas," Towle says. When he enrolled in the associate degree program at Benjamin Franklin Institute of Technology, he worked hard at it: While going to school during the day, he had jobs at night. "That wasn't easy, but totally worth it," he says.

Right after graduating, Towle got job offers from three highly regarded electrical contractors. He chose Rivers Electrical Corporation, which provides electrical, tel/data and fire alarm installation and service. The company takes pride in hiring many self-motivated, career-oriented BFIT graduates like Towle.

"I do all kinds of commercial electrical work, like rewiring existing buildings, and sometimes taking down an old building and refitting it with the next

company's needs," he says. "There's wiring lights, building fire alarms, wiring specific equipment, troubleshooting equipment. It's different work every day. I like that because it makes it more interesting. I haven't been bored yet."



Rick Towle

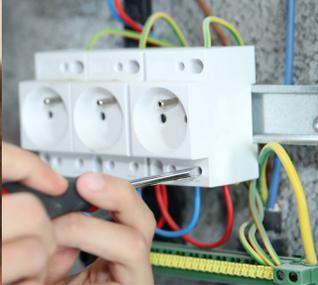
Now 10 months into the job, Towle is enjoying the perks of working at a company that hires so many people like him. "It's nice to work with my friends," he says. "I don't necessarily see them on every job but I run into them and catch up. I find it's a very relaxing environment and it feels like a team, with everyone working together."

Looking ahead, Towle plans to earn his journeyman license. He's grateful for the skills that the associate degree gave him like communication, project management, and financial planning, which give him an edge when it comes to his long-term goal. "I'm pretty sure I'd like to open my own company some day, but we'll see what happens," he laughs. "I've learned a lot in a short time, but I really should master the trade first."

STEPS TO SUCCESS

Associate degree to become a licensed journeyman electrician

- 1 Graduate from high school.
- 2 Complete the two-year daytime associate degree program or the 12-month evening certificate program at BFIT. The associate degree will fulfill Massachusetts' requirement of 600 classroom hours of electrical code and theory for journeyman licensure.
- 3 Get a position as an apprentice electrician.
- 4 Work 8,000 hours under the direct supervision of a licensed journeyman or master electrician (about four years).
- 5 Pass the journeyman licensing exam and become fully licensed electrician.
- 6 Get a substantial pay raise and the opportunity to become foreman, project manager or start a business.



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Other programs in the state offering an associate degree tied to journeyman electrical education



23%
Projected job growth by 2020

\$40.32
Median hourly rate for top 10% certified electricians



50%
Possible increase in earnings during apprenticeship

CAREER PATHS IN ELECTRICAL

By Assistant Professor Charlie Palmieri, Journeyman and Master Electrician



Charlie Palmieri

As a graduate, you have many entry-level career options in the electrical industry, including a direct pathway toward obtaining a Journeyman Electrician license and traditional positions, such as an electrical contractor, construction electrician, maintenance electrician, power system technician and electrical support positions (estimator, installation, maintenance, repair and service work).

Graduates of our program possess the entry-level skills to pursue a huge number of “non-traditional” careers, too. For

example, they can work as a design manufacture representative, or designer. Some of our graduates land jobs as technicians with large companies, such as Raytheon.

The curriculum also prepares graduates to pursue careers as audio, video and data systems technicians. These segments of the electrical industry are not governed by the division of professional licensure and do not require licensing. But these areas are subject to inspection and oversight by municipal electrical inspectors.

One alternative path is applying skills learned in the program to work as a fiber optic installer for a company like Verizon, National Grid or and Eversource. Sales is another avenue. Having a two-year degree enhances students’ opportunities to get product sales representative jobs with electrical supply houses.

Entrepreneurial students can become a business owner or self-employed as an electrical contractor. If students want to grow a business, they can complete an additional 150 hours of “book work” and test for a Master Electricians license to become an unlimited electrical contractor. Graduates also may choose to focus on Systems Work and obtain either a C (Systems Contractor), or D (Systems Technician) license in order to install, test, repair, and maintain fire warning, security, or signaling devices and equipment.

Whether students want a traditional construction job or an alternative career, the secrets to success are the same: perseverance and dedication. If students are focused and enjoy what they do, they’ll love whatever job they choose.

WHAT ELECTRICIANS DO

Electrician’s Helper – Assists electricians by handling materials and by caring for and organizing equipment.

Apprentice Electrician – Installs, alters and repairs electrical systems, conductors and associated materials and equipment under the supervision of a journeyman electrician.

Journeyman Electrician – Installs, alters and repairs electrical systems, conductors and associated materials and equipment. May work independently of direct technical supervision. May own and operate a business and employ and supervise one apprentice.

Master Electrician – Installs, alters and repairs electrical systems, conductors and associated materials and equipment. May own and operate a business and employ and supervise multiple Journeymen Electricians and apprentices.

Lead Person – Installs, alters and repairs electrical systems, conductors and associated materials and equipment. Has a Journeyman’s license. Supervises small crews of Journeymen, apprentices and helpers.

Area Supervisor – Installs, alters and repairs electrical systems, conductors and associated equipment. Has a Journeyman’s license. Leads and works along with crew. Schedules and may supervise small crews.

Project Supervisor – Installs, alters and repairs electrical systems, conductors and associated materials and equipment. Has a Journeyman’s license. Responsible for all field employees on a project, taking care of daily reports and monitoring the work.

Estimator – Develops profitable bid proposals, calculates takeoffs, and ensures that the company’s best interests are met, including profitability and cost control. Provides analysis of project plans to guarantee accurate labor, supply and schedule estimates.

Source: <http://www.ieci.org/apprenticeship/careers>



Christopher McCauley

DID YOU KNOW?

BFIT's Electrical Technology program helps graduates fulfill the State of Massachusetts' academic requirements for licensure by providing 600 hours of classroom instruction in accordance with 237 CMR 13.06 and 22.01.

BFIT offers a 1-year evening certificate program in Practical Electricity. This enables students to begin fulfilling the required 8,000 hours under direct supervision of a licensed journeyman or master electrician.



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WHAT ARE EMPLOYERS LOOKING FOR IN JOB CANDIDATES?

By Christopher McCauley, Vice President, Rivers Electrical Corporation

Over the past 15 to 20 years, I've hired about 25 graduates from Benjamin Franklin Institute of Technology. I'm not looking for a new hire to have an extremely high level of technical proficiency. That comes with time. Any skills someone brings to the table are certainly a help, but what I'm really looking for are certain character traits.

1. Team player

We send teams out to job sites, so what one person does affects the whole team. It's necessary that someone is able to work well with others.

2. Reliability

I look for people who can represent the company well and who are serious about their job. That includes showing up on time and wanting to do an honest day's work.

3. Dedication

It's important for a new hire to be a self-motivator, as opposed to waiting for direction all the time. It's also about taking the job seriously and being proud of their workmanship.

4. Listening skills

Good communication is key, namely the ability to pay attention and really listen to instructions. It goes hand-in-hand with safety on a job site.

5. Willingness to learn

Young people can have a hard time asking questions. But it's a huge benefit to get clarity on instructions or a process. Simply stating, 'I've never used this tool before, how do I use it?' is enormously important.

Extra credit: A bonus is project management skills. Some people have a feel for the big-picture view of how a project comes together. If new hires have a sense of how trades interact and grasp the ins and outs of scheduling, that's a leg up. They will go far.

Helpful resources

Independent Electrical Contractors Association
ieci.org/apprenticeship/careers

Massachusetts Electrical Contractors Association
mecanews.com/

The International Brotherhood of Electrical Workers
ibew104.org/

National Electrical Contractors Association
careers.necanet.org/jobs