

Lineworker

At a Glance

Lineworkers install and repair the wires that send electricity, cable TV, and phone signals. Their work lets us talk to people on the phone, or even cross the street at a traffic light.

16 Career Clusters

Architecture & Construction

Earnings

Earnings Range: 12 - 34/hr

Level of Education

- High School
- 2-Year College or Technical Training

Core Tasks

- Install utility poles and hang wires
- Dig trenches and lay underground cables
- Operate trucks and equipment such as hydraulic lift buckets
- Repair faulty and damaged power lines and equipment
- Work as part of a team

Attributes & Abilities

- An interest in technology
- Detail-oriented
- Good vision
- Physical strength

Workplace

- Self-employed or work for utility or telecommunications companies
- Work outdoors in all kinds of weather
- Line work can be dangerous and physically demanding
- Usually work 8 hours a day, 5 days a week
- May be on call for emergencies

Job Description

Are you into AC/DC, heavy metal, power lines, and electrical energy? This isn't about a rock star's job - it's about a career as a lineworker.

Lineworkers are some of the unsung heroes of modern society. Thanks to these workers, our communications system is one of the most advanced in the world. It is because of them that we can turn on our TVs or call our friends on the phone. Even when we cross the street at a traffic light, it is due to their hard work.

People in this field perform a variety of tasks. On a regular day, they may need to erect electricity poles or hang telephone lines. On another day, they might extend the cable TV network or dig trenches for cables.

To complete these tasks, they use special equipment. For example, they use trenchers and ploughs for digging. Truck-mounted buckets lift them up to the tops of the poles they work on.

This isn't usually a solo job. Lineworkers generally work with at least one partner or as a member of a crew. In a team setting, there might be one crew member on top of a pole and one who stays on the ground. They must communicate clearly, especially if they deal with live electrical wires.

As well as installing wires and cables, lineworkers maintain and repair them. They check for fallen branches on the overhead lines. They also repair poles damaged in car accidents. In some cases, severe weather can damage the wires. They must go out after a storm to perform the repairs and restore service.

Working Conditions

Lineworkers usually work for:

- electrical utilities
- telecommunications companies
- construction contractors

A few people in this field are self-employed. They contract their services out to many companies.

Lineworkers work in a range of settings and conditions. Much of their work is outdoors, in all weather conditions. They may work 30 stories up on a building in the middle of winter. Or, they may be on top of an electricity pole in an emergency. They also spend part of their time driving out to work sites, or working inside or on top of buildings.

This is very physically demanding work. On a regular day, lineworkers may need to lift and carry heavy equipment or stand for long periods. They also have to climb ladders and poles. This isn't a job for someone who's scared of heights! There are a few risks that lineworkers must look out for. Burns and electrocution from live wires are a constant concern. Other risks include falling from great heights and getting scrapes and bruises.

These workers have to remain calm in scary situations. This is especially true when dealing with live electrical wires that have fallen down. By following the safety rules set out for them, they can avoid injuries. They also wear and use special equipment to stay safe. This includes safety harnesses, hard hats, steel-toed boots, and insulated tools.

Most lineworkers work 8 hours a day and 40 hours a week. They may have to work on short notice, such as if an electricity pole falls in a storm. In these cases, they earn extra money. Besides this emergency work, they rarely work weekends.

Earnings

Lineworkers are usually paid an hourly wage. Some receive an annual salary.

Wages for electrical lineworkers range from about \$18 to \$47 an hour. For those working full-time hours, this adds up to about \$37,000 to \$98,000 a year. The median wage is about \$33 an hour, or \$68,000 a year.

Wages for telecommunications lineworkers range from about \$13 to \$40 an hour. Full-time workers make from about \$28,000 to \$83,000 a year. The median wage for these lineworkers is about \$25 an hour. This gives them a median annual income of around \$53,000.

Along with a salary, workers with full-time jobs usually get benefits. These can include health insurance, paid vacation time, and paid sick days. Some companies may also help out with a pension plan.

Most lineworkers belong to unions, such as the International Brotherhood of Electrical Workers (IBEW). Union leaders negotiate wage rates and benefits on behalf of all members.

Massachusetts Wages

Occupation: Telecommunications Line Installers and Repairers

Level of Experience

Hourly

Annual

Entry Wage	\$32.01	\$66,580
Median Wage	\$36.87	\$76,680
Experienced Wage	\$42.61	\$88,620

Source: U.S. Department of Labor, Bureau of Labor Statistics <http://www.bls.gov>

Occupation: Electrical Power-Line Installers and Repairers

Level of Experience	Hourly	Annual
Entry Wage	\$37.33	\$77,650
Median Wage	\$41.8	\$86,930
Experienced Wage	\$45.38	\$94,400

Source: U.S. Department of Labor, Bureau of Labor Statistics <http://www.bls.gov>

Massachusetts Outlook

Occupation: Telecommunications Line Installers and Repairers

Employment

2014	3,010
2024	3,020

Change

Number	10
Percentage	0.2

Annual Average Openings

Total	Growth	Replacement
60	--	--

Occupation: Electrical Power-Line Installers and Repairers

Employment

Employment

2014	1,760
2024	1,840

Change

Number	80
Percentage	4.4

Annual Average Openings

Total	Growth	Replacement
80	--	--

Source: Projections Central <http://www.projectionscentral.com>

Education

The most common route to becoming a lineworker is to get trained on the job. People are often hired as helpers or ground workers to start, so they can gain the required skills. Most employers prefer if you have a high school diploma.

For some jobs, you may be tested for basic verbal, math, and abstract reasoning skills. Some also test your physical abilities. You should have good balance, coordination, and strength to work in this field. Being able to work with machines is another asset.

Some employers prefer if you have technical knowledge of electricity or electronics. Relevant courses and programs are offered by 2-year colleges and technical institutes. You can also take related courses offered by the Armed Forces.

If you are hired as an electrical lineworker, you will likely need to do a formal apprenticeship. These programs are planned by both your employer and your union. Apprenticeships last several years, combining in-class instruction with on-the-job-training.

If you are hired by a telecommunications company, you will get several years of on-the-job training. You may also need to take some training courses. These courses are usually provided by equipment manufacturers, schools, unions, or industry associations.

You will need to be able to tell the difference between colored wires for this job. So, you must have good eyesight.

Related College Programs

- Lineworker
- Electrical and Power Transmission Installation/Installer, General
- Electrician
- Construction Trades, General

Other Suggested Qualifications

Most lineworkers get on-the-job training and constant re-education on new technology and safety standards. Lineworkers need to be interested in technology and pay close attention to detail. Since they must distinguish between differently colored wires, good eyesight is mandatory. Linework also involves a lot of climbing and lifting, so physical strength, conditioning, and dexterity are all important.

Sample High School Program of Study

This Program of Study can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals.

Telecommunications Arts, A/V Technology & Communications

Grade 9	Grade 10	Grade 11	Grade 12
English/Language Arts			
English/Language Arts I	English/Language Arts II	English/Language Arts III	English/Language Arts IV
Math			
Algebra I or Geometry	Geometry or Algebra II	Algebra II or Pre-Calculus or Trigonometry	Pre-Calculus or Trigonometry or AP Calculus
Science			
Biology	Chemistry	Physics	AP Science
Social Studies/Sciences			
World History	U.S. History	Political Science Economics	
Career & Technical Courses			
Introduction to Arts, Audio/Video Technology and Communications Information Technology Applications	Design and Production Technology Advanced Information Technology Applications	Principles of Telecommunication Systems	Advanced Analog and Digital Logic and Circuits

Important

- Check with your advisor to make sure that your course selections satisfy your graduation requirements.
- Courses available may vary from school to school.

Sample Career Path

People take different pathways through their careers, but no one starts at the top. This is an example of how the earnings, education and experience requirements, and responsibilities might progress for someone in this occupation.

Level 1

Sample Title	Apprentice Lineworker
Earnings	\$25,000 to \$35,000 a year
Requirements	<ul style="list-style-type: none">• High school diploma• Possibly a college certificate
Responsibilities	Assisting journey-level lineworkers; splicing wires; doing minor installations; helping transport equipment; no live wire work.

Level 2

Sample Title	Journey-Level Lineworker
Earnings	\$35,000 to \$70,000 a year
Requirements	<ul style="list-style-type: none">• Completion of an apprenticeship program
Responsibilities	Installing and repairing equipment (such as transformers, insulators, and cables) while unsupervised; maintaining live wires.

Level 3

Sample Title	Manager / Foreperson
Earnings	\$55,000 to \$85,000 a year
Requirements	<ul style="list-style-type: none">• More than 7 years of work experience• Extra training in a specific electrical field
Responsibilities	Supervising; overseeing large projects; hiring and firing staff; performing administrative duties; budgeting.

Related Careers

Here are some other occupations that you might be interested in. Click on an occupation name to learn more.

- Arborist
- Boilermaker
- Cable Installer and Repairer
- Commercial Diver
- Electrician
- Firefighter
- Ironworker
- Sprinkler System Installer
- Steamfitter

Related Military Careers

- Electronic Instrument and Equipment Repairer

Career Clusters

Career Clusters are groups or families of occupations that share common characteristics such as knowledge requirements, skill sets, and/or goals.

Architecture & Construction

National Employment by Industry

Industry	% Employed
Utilities	
Construction	
Government	
Information	

Source: O*Net Online, Browse by Industry, US Department of Labor
<http://online.onetcenter.org/find/industry>

Other Resources

Get Into Energy

Here you can learn more about careers in energy.
<http://www.getintoenergy.com>

Cabling Installation & Maintenance

This is an online trade magazine with helpful news and articles.
<http://www.cablinginstall.com>

National Cable & Telecommunications Association (NCTA)

This is a trade association for the cable industry. Click on Who We Are and then on Careers to get information on careers and internships at NCTA.
<http://www.ncta.com>

Careers in Public Power

This website presented by the American Public Power Association (APPA) has helpful information about careers in public power.

<http://www.careersinpublicpower.com/About/index.cfm>

HowStuffWorks – How Electricity Works

From HowStuffWorks, a great way to start learning about electricity.

<http://www.howstuffworks.com/electricity.htm>

Occupational Outlook Handbook – Line Installers and Repairers

Career information from the US Department of Labor.

<http://www.bls.gov/ooh/Installation-Maintenance-and-Repair/Line-installers-and-repairers.htm>