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## ***FOA Advice on Jobs in Fiber Optics***

We get many questions regarding how to find jobs in fiber optics so we've created this guide to help you.

### ***Part 1: Jobs in Fiber Optics***

There are many different jobs available in the fiber optics field, in many different types of organizations. Each has unique requirements and requires different educational backgrounds.

#### ***Installation***

Probably the largest number of jobs are as installers who build fiber optic networks. Installers must be skilled in the process of pulling cables, splicing and terminating, then testing them. It requires more manual dexterity than the other jobs, plus a basic understanding of how the systems work. In addition, installers work with specialized equipment like fusion splicers, OLTs and OTDRs that require extensive knowledge of their operation and an understanding of how to interpret test results.

Workers who install telephone, surveillance CCTV and CATV fiber optic networks do much of their work outdoors (what we call outside plant – OSP - installations) braving year-round weather. They sometimes operate big machines that dig trenches and lay and/or pull cables as well as bucket trucks. Then they bring the ends of the cables into special trucks or trailers where lengths of cable are spliced together and tested.

Outside plant (OSP) installations generally require more hardware (and more knowledge of the tools and test equipment.) Pullers, splicers, OTDRs and even splicing vans are the tools of the trade for OSP contractors.

Premises cabling techs install cables inside buildings for computer networks, security systems and other building management systems. Computer and security networks use lots of fiber which is installed inside buildings. Often premises cabling techs install complete structured cabling systems that include copper (often called "Cat 5") and fiber, as well as providing connections and sometimes installing wireless access points.

Premises cables are pulled through conduits or laid in cable trays, then terminated in communications rooms. Premises installers may come from an electrical background so one contractor may be installing power as well as communications cabling.

Premises installers may need only a termination kit for attaching connectors and a simple test kit for their installations. Working above ceilings or in crowded telecom closets or communications rooms is the norm.

FTTH techs install fiber from local areas directly to the home. Some use standard OSP installation practices and some install pre-terminated cables that just require plugging into network equipment.

### **Education/Teaching**

Fiber optics, like any fast-growing technology, needs well-trained workers. Some of those workers are trained in technical schools, both in high schools and colleges, where general courses will prepare you for most any aspect of fiber optics. Some are trained by schools specializing in adult education, often aimed at specific applications, such as installing outside plant telecommunications cables underground, where instructors are usually experienced in the field themselves. All these programs need qualified teachers. A qualified teacher will know the material they are teaching, preferably from personal experience, and will have skills in teaching students that material. Since all training involves hands-on labs to develop skills in the relevant processes, it's important that a teacher have those skills and know how to teach them to others.

### ***Fiber Optic Component and System Designers***

Most of those who design fiber optic components have at least a undergraduate degree. For components like connectors, it would be in mechanical engineering. Optical components like fibers require knowledge of both optics and materials, so many designers will have degrees in physics, chemistry or materials. If you want to develop lasers or photodetectors, you should have a background in solid-state physics. Designing transceivers involves a combination of electronics and fiber optics.

Designers of fiber optic systems are usually electronic engineers familiar with digital communications systems. Fiber optic components are used like integrated circuits to develop these communications systems.

### ***Manufacturing Fiber Optic Components and Systems***

Facilities where fiber optic components (fiber, cable, connectors, hardware, tools or test equipment) are manufactured need highly educated and skilled workers. They may operate machines costing millions of dollars that make the precision components and use sophisticated instruments to test the quality of the products.

Manufacturing jobs will have differing requirements depending on the technical nature of the job. Some require manual skills while others may require advanced technical education to understand the complicated manufacturing processes in order to ensure proper operation.

## **Part 2: Information from the U.S. Bureau of Labor Statistics**

The U.S. Bureau of Labor Statistics has a good website with lots of information on jobs in our industry. The B  
Occupations in the industry

Training and advancement  
Earnings  
Expected job prospects

**This is great information: The Occupational Outlook Handbook has a page covering fiber optic technicians.**

- What they do and the work environment
- Pay and job outlook
- How to become one, including training and certification through FOA and IBEW apprenticeship.
- Expected job prospects

### **Job Availability**

In addition, the Career Guide gives you links to [information about the job market in each State](#), [salaries](#) and [more](#)

### **Part 3: Starting Your Job Search**

When you begin your job search, you will have to “cast a wide net” and look at all the possible avenues. If you have not used the web to locate a job, you will have to take a “crash course” on navigating job boards and job search engines – be sure to review section 6 below.

#### **Get organized**

Make lists of everything you're going to do to job search. It will help you start the process and you'll feel more confident with a plan. One of the most difficult challenges of finding a job is how to distinguish yourself from all the other people who are applying for the same job. Here are some tips:

#### **Personal Contacts**

Make a list of all your business acquaintances, friends and relatives – is there anyone who could help you find a job? A personal contact is one of the most important advantages you could have in your job search. This could be a written recommendation from your contact or a phone call to someone in the company who might put in a good word for you.

You should also look at your list of contacts to see if anyone can help you research job opportunities. Basically, you should sit down with this person and interview them. Who do they know, what do they know? You could get a name of someone else and start “networking” with more “interviews”. Here is a basic truth about human nature: most people are flattered when asked for advice and are happy to help. Be sure you clarify that you are only looking for advice – no special favors. This puts the person at ease and helps them open up in your discussions. You will be surprised how much you can learn.

Also, review section 7 below on how to use LinkedIn to find contacts who can help in your job search.

#### **Local Contacts**

Join local “service” organizations such as Rotary where you can network with other business people. The local Chamber of Commerce might have a job posting site.

Local electrical contractors, especially the larger companies. Most will be doing cabling, Cat 5 etc. but they might be doing fiber jobs also. If you don’t know who they are – do an online search for “cabling contractors” in your area. Get on their websites to see if they are doing low voltage, fiber work.

In larger cities there may be a Telecommunications Business Network group. Massachusetts even has the “New England Fiber Optic Council”, a regional group focussing for fiber optic companies..

#### Other Organizations

NECA/IBEW Electrical Apprentice Program– this link will identify your local training center:

<http://www.njatc.org/training/find.aspx>

Independent Electrical Contractors – search for state chapters:  
[www.ieci.org/](http://www.ieci.org/)

CATV company in your area - check their website for hiring information

Phone companies - check their websites for hiring information

### **Part 4: Posting Your Resume on Job Sites**

In most cases, you will be submitting your resume online. Remember to use customized resumes for every position, and a strong general resume to post if the job board has a database.

To post your resume online, go to a site like CareerBuilder to review the steps. If you keep your resume under 1 MB, you can simply send it. If you have a bigger file, you will have to use Dropbox or open a Google account which allows you to upload and download larger files. But remember, you want your resume to be as short as it can be to communicate all the key information.

You will also have to decide whether to share personal data about yourself or not. Make this decision carefully to maintain your privacy and make sure inquiries are legitimate before giving out personal information.

### **Researching Jobs**

Research any company you might apply for a job. You’ll want to become familiar with all the products, where around the world are they doing business? When were they established? Are they a division of another company? Don’t just go to the company website, find out about the company from other listings on search engines.

If possible, contact people that work in the company. (use LinkedIn to find people – see section 7).

### **The Cover Letter**

The main job of the cover letter is to explain why you are a good fit for the position you are applying for. It must be short and to the point.

Summarize items from your resume that match up with what they are looking for.

Possible topics:

Skills:

Proficient in \_\_\_\_\_

Proven ability with \_\_\_\_\_

Demonstrated communication skills with \_\_\_\_\_

In depth understanding of \_\_\_\_\_

Managed \_\_\_\_\_

Speak more than one language?

Experience:

I have built and installed \_\_\_\_\_ types of cables

I have installed, tested and troubleshot \_\_\_\_\_

Performed \_\_\_\_\_ tests

Installed and repaired \_\_\_\_\_

Installed and maintained \_\_\_\_\_ equipment.

I have achieved the following FOA certifications \_\_\_\_\_

I have received special recognition for \_\_\_\_\_

### **Sample Cover Letter**

To Whom It May Concern (or a person's name, if known):

From the \_\_\_\_\_ (website), I learned about the \_\_\_\_\_ (job opening) in \_\_\_\_\_ (location). I am very interested in this position and believe that I have the qualifications you are seeking.

I worked for \_\_\_\_\_ years as a \_\_\_\_\_

I am responsible for \_\_\_\_\_

I have the knowledge and skills in \_\_\_\_\_

Attached (or "below" if email) is a copy of my resume, which more fully details my qualifications for the position.

Thank you for considering my application and I look forward to your positive response. (If you have a name you can add: Within the next week I will contact you to confirm that you received my e-mail and resume and to answer any questions you may have.)

Sincerely,

### **Your Resume**

Your resume should be well organized and as concise as possible and still communicate the important points you are trying to get across. Read and reread and keep paring it down. You have a very short time to get someone's attention (and your resume may first be screened online)

No spelling or grammar errors EVER – get someone to proof-read the document for you, “spell check” can miss things.

How long should your resume be?

For someone with limited experience, a 1-page resume is ideal.

For those with substantial careers a 2-page resume is necessary to document experience. Even if you have had a lot of experience, resist going to 3 pages.

### **Sample resumes for fiber optic technicians**

Your work experience with the most recent job listed first. Each job lists the dates of your employment, your title, if relevant and a very precise; easy to understand description of what you did on this job.

1. Name, Address, home #, cell #, email (You will also have to decide whether to share personal data about yourself or not to protect your privacy if a wide number of individuals will have access to your resume.)

2. Career Summary – this section picks up on the cover letter and presents the key qualifications to sell yourself (remember short and to the point).

#### 3. Employment History

Generally, no more than 4 lines to describe what you did is enough. Keep it simple – the first person to read your resume may be a non-technical HR person. However, if you have experience on specialized equipment or special skills, describe completely.

Job Title    Company Name    City/State    start date – end date

Responsible for \_\_\_\_\_

Set up and installed \_\_\_\_\_

Performed installations \_\_\_\_\_

Installed and tested \_\_\_\_\_

Troubleshoot and repaired \_\_\_\_\_

Testing with (list all the equipment)

#### 4. Education

BS: \_\_\_\_\_

AAS: \_\_\_\_\_

Additional Courses:

On-the-job training

#### 5. Certifications and Affiliations:

FOA Certified Fiber Optic Specialist (CFOT)

Additional Certifications?

Member: Professional Society \_\_\_\_\_

### **5. How to approach the interview**

Interview for all types of jobs even ones you do not think you are interested in. This is how you can practice your interviewing skills in preparation for the jobs you really want.

Make a list of all the questions you think they might ask and practice your responses.

Dress conservatively – get some advice, even from a store clerk at a traditional clothing store.

#### **The problem of being overqualified**

Think about it from the potential employer's point of view. If you are over qualified, will you stay in the job if a better opportunity comes along? The employer wants the best fit, sometimes this will be someone with less experience that will be challenged and grow with the job and can be hired at a cheaper rate.

What to do? You should “tone down” the experience that might be a “red flag” that you are over qualified and play up the parts that are a better match.

Also remember that you do not have to reveal your age and in the interview they cannot ask. Make sure the resume makes it hard to do the math.

Do not list your salary requirements on the resume. The challenge is can you live with lower your salary ranges if you cannot find a job in the salary you expected?

#### **Dealing with Rejection**

Don't beat yourself up. An employer can choose to hire someone for a variety of reasons. You may have been the best qualified person for the job but an insider was picked. When you get to the interview process, there is a “gut feeling” compatibility factor that you cannot control. A lot of companies have you interview with different people including your potential peers. Each of these people could have a say in who get hired. Sometimes a job opening is withdrawn for a variety of reasons and no one was chosen. You will never know what happened.

### **Part 6. Job Boards and Job Search Engines**

To maximize your job search, use both job boards and job search engines along with a variety of sites, because no single site searches all job listings.

### **What to Look for in a Job Site**

The best sites for finding job listings will allow you to find the most current job openings. Most ask “what kind of job” or use the term “keyword”. Use “fiber tech” or “cabling tech” and see what pops up. Experiment with different job titles. If you are a splicing specialist, be sure to include that in the job title you list. They also ask for “location” but you can choose US to give the widest listing is you are able to relocate. Also, you may have to register on some of the sites and some even require a fee to join.

Before you start responding to job openings, do some research to find out what skills companies are looking for, salary ranges, etc. Then check on the company websites and their LinkedIn page. (See section 7 for tips on using LinkedIn.)

These are job boards for the cabling industry. Check if the listings are dated – you can find that job openings are old but have not been removed:

[cabl.com](http://cabl.com)

[cablingjobs.com](http://cablingjobs.com)

[www.juju.com](http://www.juju.com)

[www.fiberopticjobs.org](http://www.fiberopticjobs.org)

[www.careers.org](http://www.careers.org)

Here is a sample of popular “general” job boards with postings across a broad range of industries – check these also:

[www.monster.com](http://www.monster.com)

[www.indeed.com](http://www.indeed.com)

[www.careerbuilder.com](http://www.careerbuilder.com)

## **7. Networking Sites**

Networking sites like LinkedIn and Facebook are an important part of your job search efforts. Both are massive databases but LinkedIn is more business oriented so we will concentrate on this site.

### **Create your LinkedIn profile:**

Your headline is one of the most important portions of your LinkedIn profile. Whatever you choose to make your headline say, make it something searchable that will help people who are looking for the services you provide or the particular skill set you bring to the table find you.

Add a profile photo that presents a “professional” image of you

List all the jobs or positions you've held, along with descriptions of your roles in simple, direct terms. View other profiles in your field to get tips on how to present your skills.

Write a summary about yourself. Again, review other profiles to see how others do it well.

### **Networking**

Make “connections”. Join groups, find others in your field and contact them for advice. You will need to participate intelligently and carefully in these groups to establish a business-like online presence for yourself. Ask questions and make comments that demonstrate your knowledge and create an online “identity” for yourself.

Check to see if you have any contacts working at the companies with open positions. Look for alumni contact also.

### **The FOA has two LinkedIn Groups:**

**FOA** - covers FOA, technology and jobs in the fiber optic marketplace

**FOA Fiber Optic Training** - open to everyone, covers fiber optic technology and training topics

You will find other fiber related groups – take the time to monitor the popular sites.

**Learn who is looking at your resume.** If you do post your resume on either LinkedIn or CareerBuilder, you can see who is looking at your profile or resume. It won't take much detective work to look up those people on LinkedIn and possibly arrange for them to introduce you to the hiring manager.

### **Keep your own social media site professional**

Just remember while you are searching for jobs on networking sites, employers are studying you! It's not uncommon for an employer to check up on an individual's social profiles before hiring, and many applicants have been turned down because of crude language, inappropriate pictures, and displays of partying, drinking or using drugs.

Be sure to monitor your social networking activity and remember anything you post remains online forever.

