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Becoming a Washington Firefighter

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Becoming a Washington Firefighter



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Abstract

For this project, under direction of Judy Beard and Matthew Martinson, I have created a manual to further assist individuals in the process of fulfilling dreams to become a firefighter. I have researched the vast number steps it takes to become a firefighter and provided helpful suggestions that will aid individuals throughout the process. Becoming a firefighter is a demanding process with physical abilities that need to be taken into consideration when going through the elaborate process. This project includes background information on structure firefighting, volunteer firefighting, wildland firefighting, emergency medical technicians, paramedics, and what the role of each of these have in becoming a career firefighter. My project includes sample questions, prices of entry tests, where these tests occur and how often. Included is also a list of departments and what exam they require to be taken, since assessments vary between departments. Characteristics that are needed/wanted for this career are also explained in this project with an emphasis on how and why each trait is used in the daily life of a firefighter. My goal is to give guidance to those who may be struggling with getting hired and provide strategies that will guide individuals to be more successful candidates.

Key Terms: Firefighting, Candidate, EMT, Wildland Firefighting

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Introduction

Children, when asked, “What do you want to be when they grow up?” often have one of a handful of answers: teacher, cop, firefighter, doctor, or the extreme, astronaut. This manual will focus on the firefighting profession. Many people that set their minds on becoming a firefighter believe that it is a super simple goal to achieve. Simple, however, is not the case when it comes to the application process of becoming a structure firefighter. A structure firefighter is an individual whom lives at a fire station and responds to emergency calls. Emergency calls include but are not limited to fire related calls or medical emergencies (which are most of their calls). Take a child who wanted to be a firefighter when they grew up and ask them, “How would you go about achieving this goal?”. The child may look at you like you are crazy. Now take an adult and ask them the same question. Even an adult will probably give you the same puzzled look without doing some research.

Structure firefighters have many responsibilities and are very versatile in the job, however, becoming a firefighter is just as difficult as the career itself. The steps in completing the direct application are complicated enough, let alone how to gain experience prior to applying. Websites only go so far in helping with how to stand out when there are potentially hundreds of others applying for the same three or less spots available in a fire house. This manual helps streamline the process of becoming a firefighter. The steps and suggestions in this manual are not required, just suggestions on how to outperform competitors for those limited openings.

There are ways to skip straight into testing and get lucky which would land you a job as a structure firefighter. However, skipping too many steps will decrease the chance in fulfilling the goal of becoming a structure firefighter because the next person interviewed may have had more experience in the emergency medical profession. Some of the steps posted on the page 19 can be clumped together, for example to become a paramedic an individual must attain a current EMT certification. Not all the steps are required. Some steps are pre-requisites for others. For example, in order to become a paramedic, the EMT certification must be attained prior to the paramedic. Same goes for the start to structure firefighting. Volunteer firefighting will help to get a candidate into a resident firefighting position however becoming a resident firefighter is not necessary to become a volunteer.

The initial step prior to becoming a firefighter is a self-examination of the requirements to see if you are eligible for this difficult career path. For example, do you meet the age requirement? Age requirements are department dependent: some accept 18-year-old individuals while others require applicants to be 21-years-old. Firefighters must have a minimum of a General Equivalency Diploma (GED) or high school diploma to be considered for hiring. Candidates also must have a valid Washington State driver’s license. The Written Examination by National Testing Network must be completed and passed within one year of the close date of the application. In addition to the written exam, candidates must also complete a Candidate Physical Ability Test (CPAT) also within one year of the close date of the application.

Some of the desired qualifications, include certification and experience as an Emergency Medical Technician (EMT), possessing a current CPR and first aid certification is also encouraged. Fire departments often place higher regard for candidates with experience in a variety of medical or fire related fields. Other certifications most departments look for when hiring is International Fire Service Accreditation Congress (IFSAC) Firefighter 1 and IFSAC Firefighter 2, which will be explained in later sections. An applicant who has an Emergency Vehicle Incident Prevention (EVIP) certification or professional driver equivalent and Rescue Systems 1 is desirable because they save the department time and money when it comes to training new candidates to drive their vehicles.

Higher education is also highly encouraged which makes it a desired qualification. For example, Shoreline Fire Department looks for individuals with fire related studies on their college transcripts and experience with written communications/technology application. This department also looks for four-year college degree/vocational certificates, certifications of relevant training and experience in public/community service. Last but not least they also look for experience in customer service-related abilities. Moreover, it helps to be fluent in additional languages beyond English. All these desired qualifications, except for becoming fluent in an additional language, and how to attain them, will be explained in the manual. A lot of the desired qualifications can be attained while attending college, for example, wildland firefighting is in the summer which is a good way to gain fire experience while making a little bit of money. Like everything, fulfilling a dream takes time and work, but in just four years, that dream could be met if a candidate is hardworking and ready for a challenge, and this manual helps in achieving a career as a firefighter.

After looking at the qualifications and sorting through what needs to be completed, candidates can be doing a lot while still at the beginning of the process. Getting accepted into a four-year college should be at the top of the list for every potential firefighter. Applicants should focus on studies in the field of fire-related degrees, such as Fire Prevention and Safety Technology, which may be attained at Everett Community College or Bates Technical College. After consulting with current and retired firefighters, they suggested a degree in psychology. Psychology degrees may be important in helping cope with the potential gory images not only for yourself but for fellow coworkers. Psychological approaches may also help when trying to get the chief complaint from a patient, not all patients know exactly what is going on. Candidates should consider part-time fire related jobs while attending school and full-time fire focused positions during summers.



(Bulldraw Wildfire in Colorado 2018)

The first step is wildland firefighting. Wildland firefighting is mostly a summer job that allows individuals to gain fire experience while helping to suppress wildfires across the country. Sometimes it is voluntary work, but there are a lot of paid positions as well. Along with getting experience with fire, there is also a financial benefit fighting wildfires, which can help tremendously with tuition at universities. This manual explains how to become a wildland firefighter and which of the desired qualifications will be met to help in becoming a career structure firefighter.

While in college, a student may also become an EMT. Private ambulances allow individuals to work part-time or, sometimes, just on weekends, to accommodate students who are working toward earning a degree at the same time. Some colleges, like Central Washington University, allow for individuals to take the EMT certification course as part of their credit load, but if a school does not allow that, there are plenty of courses that may be taken to fulfill the eligibility for the national exam. EMT courses are costly, at least \$2000 for an example in Cle Elum Washington. Costs vary depending on location and availability; however, Cle Elum is the least expensive that I have found. After a candidate passes the EMT course and the National Registry of Emergency Medical Technicians (NREMT) they will become eligible for the 18-month Advanced Emergency Medical Technician (AEMT) course which costs between \$10,000 and \$15,000. The advanced course allows for higher qualified first responders and well-rounded fire candidates.

After the completion of the NREMT, the certified individual is required to be affiliated with a department within one year of completion. A department is any ambulance company, or fire department that practices emergency medicine. Once the individual is affiliated, he or she has a couple options: the first option is to work as an EMT for a private ambulance company; the second option is to become a volunteer firefighter. An advantage of serving as an EMT is the possibility of simultaneously working on an ambulance and being a volunteer firefighter. Some volunteer fire departments will reimburse candidates for their EMT schooling upon completion of the NREMT as well as provide an incentive for completion. Volunteer firefighters require the

same tasks as a career firefighter; however, volunteer work is less competitive because of the lack of pay. Nevertheless, some departments give a stipend per call. For example, in Ellensburg, Kittitas Valley Fire and Rescue (KVFR) offers \$15 per call. Volunteer firefighters at KVFR are required to attend 20 hours of training and a minimum of 10% of the stations call volume. A bonus related to volunteer firefighting is receiving the IFSAC requirements. Volunteer firefighters gain the same training as the career firefighters, which allows for individuals to use that knowledge and experience to become the best candidate for any chosen fire department.

The next step after being a volunteer would be to become a reserve firefighter—if a department has the position. KVFR, for instance, has a reserve firefighting position that requires a bit more commitment than a volunteer. Reserve firefighters must have a certain number of on call hours and training hours. This position will also give testing incentive points based on the longevity of the individual and performance with the department. A reserve firefighter assists the department on times of high call volume and has an hourly wage. The reserve firefighting program is a bit more of a commitment than volunteer and a little less of a commitment than the residency program. The resident program requires that the individual uses the fire house as their primary residence, and they must go on a certain number of calls a month. Residents get the opportunity for exclusive training and high-test incentive points.

After graduating college, and hopefully getting some of the experience needed for the desired qualifications, this is the time for a candidate to start testing. This is the hard part, and the part that seems like it should be first but is last. This is where the requirements come in. Having gained knowledge and experience, now is the time where the candidate runs into either the national testing network exam or the public safety test. Each department is different and uses one of the two testing sites. These sites require candidates to go to a testing center to complete the exam. Each exam costs money each time it is taken so the goal is to get a score that is acceptable for departments before taking the Candidate Physical Ability Test (CPAT) because the CPAT is most expensive but will more likely than not take the least amount of times to pass compared to the written. Once both scores are sent to a hiring fire department, and if the candidate meets or exceeds all minimum requirements, the department will potentially contact the candidate for an initial interview. Shoreline, for example, uses 3 different interviews to determine who they want to hire. They will take the top 50 exam scores from the national testing network for the initial interview. The second interview will be the top 25, and the third will be the top 12. Keeping in mind this may be for only one open fire position.

The application process for becoming a firefighter is long and usually takes more than one attempt. Without any of this information, many would-be firefighters would find it fulfilling a dream of becoming a firefighter extremely difficult. This manual allows for all the information to be in one place, and allows individuals to see exactly what they need, and when they need to complete exams to stay on track of their goal. There are many ways of fulfilling this dream but knowing the steps and qualifications before starting the process will allow candidates to see what

they need to do to be a better more prepared candidate, than the person interviewing against them. This manual would have helped me in my process of becoming a structure firefighter.

Required Qualifications

EMT Certification

- National certification, and Washington State certification. Or the ability to possess a certification.

Age Requirement

- Candidates must be 18 or 21 at time of application (or older), dependent on the department.

Educational Requirement

- Candidates must have a high school diploma.

License Requirement

- Candidates must possess a valid driver's license and be insurable under the fire department's vehicle policy.

Written Examination

- A written test completed within the past year from close date of the application.

CPAT

- Candidate Physical Ability Test

Desired Qualifications

- IFSAC Firefighter 1 Certification
- IFSAC Firefighter 2 Certification
- Firefighting and EMS Experience
- EVIP Certification or Equivalent
- Rescue Systems 1
- College - Fire Related Studies
- Basic Computer Skills

Wildland Firefighting



(Brian Head Wildfire in Utah 2017)

Relevance to Structure Fire

Wildland fire is a great way to start a fire career. Not only is wildland fire a good college job, it also looks incredible on a resume for a structure fire position. Many people think of the red trucks with lights and sirens rushing down the street to help at car accidents, or at a burning building. However, many people overlook the wildland firefighting profession. Wildland firefighting is a great first step to becoming a structure firefighter. Wildland fire professionals gain knowledge on extreme fire behavior. Fire behavior is how the fire moves through the landscape in which it started. Fire behavior is a main concern for not only wildland but also for burning structures. Knowing what fire is going to do when it encounters different materials is important for both wildland firefighters and structure firefighters. For example, knowing what material is going to burn first, fastest, and hottest is very important for firefighters of all type when having to make extreme decisions quickly. This type of situation happens in both the natural and structure fires. Fire is going to react differently to various materials and having the knowledge of what should happen when encountering those materials will keep an individual safe while in a burning house.

Qualifications

Private contracting companies are a main source of the personnel assigned to a fire; most require no previous experience however do require you to live close to the base. Applicants must be at least 18-years-old, drug-free, have a great attitude/work ethic, while also showcasing positive leadership skills.

Government companies may hire wildland firefighters as well. For example, the Department of Natural Resources (DNR) has different requirements for wildland candidates versus a private company. Applicants must turn 18-years-old at or before the time of hire (typically by May to mid-June), have a high school diploma or GED at or before time of hire, attain a valid driver's license with a minimum of two years of driving experience and an

acceptable driving record with no serious traffic violations. The following will not be accepted for hire: license suspension/revocation due to reckless driving, hit and run, leaving an accident scene, failure to appear for court, DUI or other vehicle-related felony. More than 3 moving violations in the past 12 months or more than four moving violations in the past 24 months candidates will not have acceptable applications. Candidates must be able to buy lace-up boots with Vibram soles and constructed entirely of heavy leather that extends a minimum of 8 inches above the heel cup (inside of boot). DNR will reimburse (when deemed necessary) up to \$270 (with original receipt) for the cost of pre-approved boots.

Each company has a difference in their minimum requirements that each individual must attain prior to employment. The most common requirements that personnel in every company needs include but are not limited to: 8" all leather boots, the boots must be high enough to protect the ankle from fire, must be able to pass a random drug test, be at least the age of 18 with a clean driving record, and also have the ability to pass the preliminary walking requirement of three miles, in 45 minutes, with a forty-five-pound backpack. This last task simulates a situation in which an individual must have the ability to get to a safe area from an approaching fire with gear on their backs.

Duties

“Depending upon where you are stationed, you may experience all four seasons within a few days when working on a wildland fire. Duties specific to wildland firefighting are related to prescribed burning, wildfire suppression, and fire preparedness. These responsibilities include serving as a firefighter or engine operator during prescribed burning and wildfire suppression activities, conducting regular maintenance and repairs on various equipment such as fire engines, tractors, mowers, chain saws, and hand tools; serving as a crew member during fire break preparation which involves rock removal, mowing, trimming, tree and brush removal. Firefighters may have the potential to assist other refuges as well as other federal or state agencies throughout the nation with prescribed burning and wildfire suppression. When not involved with fire related activities, wildland personnel may aid in conducting natural resources related project work on behalf of the Fish and Wildlife Service's many refuges throughout the country.” (U.S. Fish & Wildlife Service)

During wildland suppression, there are not any tasks that are unable to be learned in the spare of the moment. Each crew (typically a group of 20 members) will be assigned to different tasks which will assist in suppressing the fire. There is no single task that does not help with the slowing of the fire, no matter how miniscule the task may seem. Every assignment is important. One crew may be burning off a section of fire, while another crew is prepping a specific area. Many tasks may seem irrelevant, for example, liming trees on the side of a road a mile away from the fire. Liming this imaginary road, will help slow the fire if it gets out of control. Working a wildfire is not as easy as putting water on it and it goes out, being proactive and having the ability to change the task at an instant is important. Hand crews only work if the flame is less than four feet tall. Anything more than four feet, the fire will not stop. Getting a fire to slow down enough to get the flame down to four feet or less is where the seemingly

irrelevant liming comes it. Cutting trees lower to the ground will keep the fire from climbing up the trees and jumping from tree to tree.

There are many tools that are used when wildland firefighting. One of the most common tools is called a Pulaski. The Pulaski is a dual-purpose tool: on one side of the head is an axe and on the other is a small hoe. The short handle makes it easy to carry, while also making the Pulaski heavy to cut roots and chop wood. Another tool commonly used is a hoe: a short piece of wood with a metal end that is larger than that of the Pulaski, which is used to move leaves, and cut fire line in the dirt deep enough for mineral soil. The chainsaw is used not only for large trees, but also for clearing brush quickly rather than using other apparatus. The Mcleod is a fire rake used to clean up the fire line after the other tools have done their job. Each of these items play a major role while fighting a wildfire. Each tool is strategically placed in an order on the fire line to make sure it goes smoothly and efficiently in order to stop the fire in its tracks. Having each of the tools do a different task it is important to spread out the same tools or the line will not be as productive.

EMT and NREMT

Firefighters have more responsibilities than tending to open flames. Firefighters are also emergency medical professionals, whether this be an Emergency Medical Technician (EMT), Advanced Emergency Medical Technician (AEMT), or a Paramedic. Fire departments in the U.S responded in 2016 to approximately 22,750.5 medical aid, 5,981 smoke scares, or lockouts, 2,622 false alarms, 1,515 mutual aid or assistance calls, 1,342 fire incidents, 684.5 hazard calls including wires bomb calls, and 425 hazardous material calls (Statista, 2018). Keep in mind these statistics are represented in the thousands, meaning each number is missing three zeros on the end and are from all over the United States. Each firefighter is trained for every medical call as well as a fire, but the most frequent calls, are related to the practice of an EMT. Every firefighter must be EMT certified. Some departments train their employees themselves, while others expect individuals to be certified prior to applying.

Qualifications

To work as an EMT in Washington State, professionals must be at least 18 years of age. Another requirement is to complete a state-approved EMT course that that qualifies under the National Registry for Emergency Medical Technician (NREMT) field training. The field training is where individuals will gain all the textbook knowledge it takes to become an EMT in the U.S. The field training is a pre-requisite in order to be eligible to take the written NREMT. The field training is where candidates will receive the CPR/Basic Life Support or Healthcare Provider certification, which must be within two years of a candidates NREMT written exam. The NREMT can be taken up to three times before the individual must retake the field training course.

Certifications

After attaining NREMT certifications, the state of Washington requires EMT's to be state certified as well. The only difference between NREMT and a Washington state certification is in Washington State all EMT's must practice medicine under a certified medical director. The simplest way to get Washington State certified is by becoming affiliated with an agency. After passing the NREMT and get accepted for hire at an agency, the agency will help fill out state certification papers. After completing the NREMT exam individuals must attain Washington state certifications to practice medicine under the district medical director. The Washington state certification is an application process reviewed by the medical director once individuals get accepted for hire at an ambulance company or fire department.

Example NREMT Questions

The NREMT is not an easy exam. Some of the questions may be difficult to understand and could have multiple correct answers. Although the exam is timed it is important to think about the question and answer it as if it were real life. What would you do? Here are a few example questions that may be helpful when trying to think about what to study for the NREMT exam.

Example One

1. You are called to a home where a 91-year-old man has had a syncopal episode and is vomiting. The caregiver who called 911 stated that the patient's bowel movements have been bright red since yesterday. The patient has not complained of any pain but is nauseated. What is most likely wrong with this man and which choice includes appropriate treatment steps?

- a) He has an upper GI bleed and should be transported sitting up with high flow O₂ administered via a non-rebreather mask at 15 LPM.
- b) He has pancreatitis and should be given high flow O₂ via NRB at 15 LPM. Rapid transport in a left lateral recumbent position while keeping him warm will help avoid shock.
- c) He has had a TIA and should be given high flow oxygen via NRB and transported on his effected side to the nearest hospital.
- d) He has a lower GI bleed and should be given O₂ via nasal cannula at 4LPM and transported in a position of comfort while treating for shock

(EMT Practice Tests, 2016)

Example Two

2. You have just arrived on scene of a single vehicle accident involving a truck that has slid off the road and rolled. Your patient was driving about 40 MPH when he hit an icy spot and went off the road rolling the vehicle one time. After completing your scene size up, which of the following treatment choices would be the most appropriate?

- a) Check baseline vitals do a focused exam on the patient's chief complaint
- b) Perform a detailed physical examination to uncover any life-threatening injuries
- c) Get a SAMPLE history and do a focused physical examination
- d) Perform a rapid trauma assessment

Answers are on page 32

(EMT Practice Tests, 2016)

AEMT and Paramedic

Both AEMT and paramedic requirements start off similar. AEMT stands for Advanced Emergency Medical Technician. This qualification requires more schooling and more memorization. AEMT's can start intravenous needles or IV's. Being able to place an IV prior to arriving at the hospital will make the transition from the ambulance to the hospital quicker and easier. Paramedics however have the most advanced training even above an AEMT. The most significant difference between the AEMT and a Paramedic is that a Paramedic has the ability and knowledge to place an intubation tube. Intubation is a skill that puts a tube down a patient's throat into their lungs which in turn allows air to be put directly into the lungs.

Qualifications

First and foremost, both AEMT's and Paramedic's must be certified as an EMT prior to applying to a Paramedic or AEMT course. Course requirements vary for how long an individual must practice as an EMT, before they can apply to the AEMT program. Some require a minimum number of hours as an EMT prior to being accepted into an AEMT or Paramedic course. AEMT courses require close to 200 hours of prior training where the EMT courses require anywhere between 120 and 150 hours in a classroom. Paramedics are responsible for over 400 hours in the classroom prior to becoming certified. The classroom time is after the EMT certifications. (National Registered Paramedics)

Pre-requisites

The pre-requisites for both an AEMT and Paramedic are similar to an EMT's pre-requisites however are more difficult. An EMT certification must be attained prior to applying to become an AEMT or a Paramedic. Once deciding to receive more training, the choice is yours in applying to become an AEMT or strait to a Paramedic. If the goal is to become a Paramedic there is no need to become an AEMT prior because the training learned as an AEMT will be taught as a Paramedic.

Benefits

A Paramedic certification may allow for more options when applying to become a firefighter. Some departments require their firefighters to be Paramedics because Paramedics have a wider range of emergency operations allowed by the state. Every firefighter is at least certified as an EMT. However, as an EMT, the training is less and not as extensive. An EMT is more of an assistant to a paramedic. On a scene with an ambulance, a firefighter's job is to assist in the needs of the ambulance personnel in order to best benefit the patient.

Volunteer Firefighting

Kittitas Valley Fire and Rescue (KVFR) provides incentive to becoming a volunteer firefighter. Working in a fire department gives many advantages over other applicants who do not have fire experience. Volunteering looks good on applications and it will certify employees without cost.

KVFR provides these incentives for volunteering for them, “Volunteer firefighters fulfill an important role in departments that do not have fully staffed firefighters. Volunteers can perform specific tasks base on individual abilities, knowledge, certifications, training and experience level. Qualifications include interior firefighting, wildland firefighting, apparatus driver, staging manager and Non SCBA emergency operations, vehicle extrication, basic first aid to emergency medical technician, traffic management at emergency scenes, and fire prevention and safety education. Insurance coverage is also provided under the Washington State Volunteer Pension and Relief Act. Volunteers are also eligible for retirement through Washington State Volunteer Pension Fund after achieving the required years of service. Volunteer firefighting is a great way to get extra experience and gain knowledge that can be passed on when transferring to a paid position in a fire house. Some volunteer departments give stipends per call and or per drill. Kittitas Valley in Ellensburg Washington gives a stipend of \$15.00 per call and \$20.00 per drill. Some departments are fortunate enough to give these kinds of stipends but not all will. The main take away from volunteer firefighting is the experience need when transferring to a full-time career.” (Ifocus.us. Kittitas Valley Fire and Rescue)

Qualifications

The qualifications for volunteer firefighting vary for each department but include a minimum of a high school diploma, which indicates that the employee is competent in English, and supports the ability to communicate with others. Another required qualification is to be EMT certified prior to applying to a volunteer department. Every firefighter must meet an age requirement of at least 18 and possess a valid Washington State Driver’s license. Some departments require that applicants must have taken and passed written and physical exams, but this requirement varies depending on location so be sure to contact the fire house of interest. The main requirement is to live within or near the fire district. Volunteer departments are looking for individuals who are dependable, brave, and those who have strong decision-making skills. All these characteristics are vital to developing competent assets to the emergency medical system and patient care.

Why Volunteer?

Volunteer firefighting is a great way to gain experience and knowledge. Volunteering also provides certifications that work toward the desired qualifications of the difficult career fire departments. Depending on the department volunteer firefighters could become certified in IFSAC 1 and IFSAC 2. IFSAC stands for International Fire Service Accreditation Congress both IFSAC 1 and 2 have different requirements on fire suppression both in the field of wildland, and for structure fire. These certifications are provided by both the resident, and reserve fire

positions. However, some volunteer departments that require a lot from their volunteers, provide these trainings. The volunteer departments that provide these trainings are the places to volunteer for because they will certify individuals for higher trainings. This is what career fire houses look for during the hiring process.

As stated before, volunteering is the best way to gain experience in fire. Some career departments look for experience when sifting through applicants. The more volunteer hours an individual has, the better chance of getting hired on with a career department because it shows preparation and determination by being proactive. Also, the applicant will have had the ability to practice proper protocols and complete training prior to getting hired on with a department.

Important steps when looking into a volunteer program include the following:

Step One

Make sure you are ready to commit. The decision to become a volunteer firefighter should not be taken lightly. Certification requires hundreds of hours of training, commitment to service no matter the call, and danger. There is always a possibility of not coming home on any given night.

Step Two

Research for volunteer firefighting before choosing a department is key because some are better for volunteers than others. It is important to know the certifications required to apply to a volunteer department and which qualifications the department will provide is also crucial. Having as much information about the department and about the commitment each department requires, may deter individuals towards a certain department.

Step Three

Contact your local fire service agency before sending in an application to gather information. Regardless what is online, walk in and talk to someone who works there, they will have a better explanation than what will be online. Not all departments have volunteers, and depending on your area, staffing is based on population and local government, which means opportunities may not be available. If your local department doesn't have volunteers, check out FireDepartments.net. This website has department statistics that include call volume, and types of calls to be expected.

Step Four

Once you have identified a department to volunteer for, you will need to complete their application and background check process, which may take multiple days or even weeks. The application is a screening process and varies by department. Each department will go through an extensive screening process to make sure candidates will be a match for the open position. Training commitments also differ between departments; however, most are similar. If there is a specific training certification that is needed when applying for a career position, make sure the volunteer department offers that certification.

Step Five

After getting an interview and getting a position as a volunteer, the department will usually enter you in a training program. The length of these programs varies, but all firefighters are required to take a minimum of 110-hour NFPA-certified course. This course is time consuming and has both paper exams and physical exams. It is important to do well at these trainings because they will help you when taking the National Testing Network exam, or the Public Safety Testing exam which will be explained in the next section.

Testing

When it comes to testing, there are two places that fire departments use to look at individual scores and compare them to other applicants. These two exams are the National Testing Network (NTN) and Public Safety Testing. Both exams are proctored and typically located at specific fire departments throughout Washington. The exams cost at a minimum of \$49 to over \$290 for Public Safety Testing, the reason the prices vary so much is because it depends on the number of departments that the test scores are sent to. Every department requires at least one if not both tests, this is the first step in making a qualifying or a disqualifying score. This test can be taken as many times as a candidate would like; however, the downfall is that it costs money every time the exam is taken. Receiving a bad score the first time is common, so getting a feel for the exam and knowing how the questions are going to be asked will prove to be beneficial when taking the written exam. The CPAT stands for Candidate Physical Abilities Test, this exam shows the abilities for each candidate showing if the prospect is physically able to perform the demand of a firefighter. All candidates must take and pass The CPAT but have a choice of which written exam can be completed.

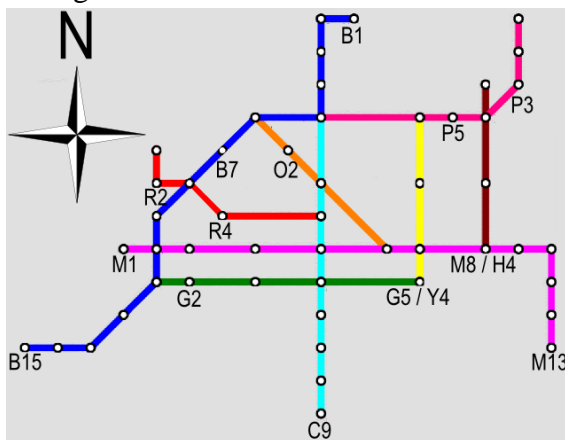
Both exams are similar however administered by different corporations and the CPAT qualifies for both exams. The only difference is the written exams.

Example Questions

Here are a few examples of questions for the written entry fire exam:

Example 1

The map below is a scheme of subway lines in the city. Each line is marked by a different color and is associated with a different letter. Stations are numbered by their location on the line(s). The numbering of the stations progresses from the beginning of the line to its end. Lines always begin at the northernmost station, except for lines G and M which begin at the westernmost station. Codes associated with some of the stations have been written below them. A station can have more than one code associated with it, as some stations have more than one line passing through them.



Question: Ms. Sol Aroches needs to commute from station M3 to station O3. Which of the following routes would be the least efficient (passes through the most stations)?

- A) M3 → M2 → B8 → C3 → O3.
- B) M3 → C4 → O4 → O3.
- C) M3 → M5 → O3.
- D) M3 → B10 → B5 → O3.

Example 2

You are sitting around the dining table at the station when you hear a fellow firefighter complain about the cleanliness of the plates and cutlery. "Whoever washed these dishes must be blind," he exclaims. You washed the dishes last, and you are certain you cleaned them thoroughly. After all, no one else has complained.

What should you do?

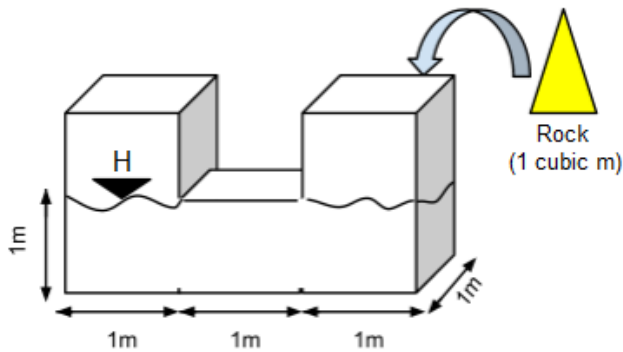
- A) Tell the firefighter that you washed the dishes, but you won't be offended if he wants to rewash the ones he plans to use.
- B) Tell the firefighter that the problem must lie with him as no one else seems to have any complaints.
- C) Ask your team to be relieved of this duty in the future.
- D) Tell him that he can wash his own dishes from now on as obviously he has higher standards than everyone else.

Example 3

A tank with a water level of 1 meter is shown in the diagram below.

A rock with a volume of 1[m³] is added to the tank.

What will be the new water level H?



- A) 1 meter
- B) .5 meters
- C) 2 meter
- D) None of the given answers

Example 4

Select the answer choice that represents the most appropriate and effective ordering of the sentences below

1. Before deciding upon a correctional officer, people usually think about endless possibilities.
2. Choosing a career in the correction services is an important decision to make.
3. In summary, after lots of thought and information, you can make the best decision for yourself.
4. It is important to think about yourself in different situations; and in doing so, you will come up with your personal interests, goals and abilities.

- | |
|---------|
| A) 1324 |
| B) 2134 |
| C) 2143 |
| D) 1342 |

Answers are on page 32
(Study Firefighter Written 2012)

National Testing Network

Prices for the National Testing Network are \$50.00 for the initial exam while adding a \$9.50 for each additional department that the test scores are sent. NTN does allow for purchase of practice exams which are highly recommended.

Departments that use National Testing Network include the following as of 2018:

Bellingham
Benton County Fire District 4
Boeing Fire Department
Bothell Fire Department
City of Bremerton
Burlington Fire Department
Camano Island Fire & Rescue
Central Kitsap Fire & Rescue
Central Mason Fire & EMS
Central Whidbey Island Fire & Rescue
Everett Community College
Granite Falls Fire Department
Snohomish County Fire Protection District 17
Kennewick Fire Department
Lacey Fire District 3

Lake Stevens Fire
City of Lynden
Marysville Fire District
North County Regional Fire Authority
Northshore Fire Department
Oak Harbor Fire Department
Orting Valley Fire & Rescue
Port Ludlow Fire & Rescue
Poulsbo Fire Department
Seattle Fire Department
Snohomish County Fire District 19
Snohomish County Fire District 5
Snohomish County Fire District 7
Snohomish County Fire Protection District 15

City of Snoqualmie Fire Department
Sunnyside Fire Department
Vashon Island Fire & Rescue
West Thurston Regional Fire Authority
Clallam County Fire District 3
Duvall Fire - King County Fire District 45
East Pierce Fire & Rescue
Getchell Fire Snohomish County Fire District 22
Griffin Fire Department
Hanford Fire Department
King County Fire District 20

North County Regional Fire Authority
Orting Valley Fire & Rescue
Port Ludlow Fire & Rescue
Pullman Fire Department
Redmond Fire Department
Shoreline Fire Department
Snohomish County Fire Department Paine Field
Snohomish County Fire Protection District 15
Spokane County Fire District 10
Whatcom County Fire District 8
Whatcom County Fire District 7
Woodinville Fire & Rescue
Yakima County Fire District

Public Safety Testing

Prices for Public Safety start at \$49.00 for a choice of sending scores to one or two departments and then adding \$15.00 for two additional departments. Public Safety Testing does not have a running list of departments that them for their written testing. National Testing Network does, they allow individuals to see the departments even if they are not hiring at the time someone is attempting to apply. If the department that is being looked for is not on either list for departments, chances are they are not hiring at this time and most likely use Public Safety Testing.

Departments that use Public Safety Testing include the following, as of (2018):

Arlington Fire Department
Bellevue Fire Department
Enumclaw Fire Department
Everett Fire Department
Gig Harbor Fire & Medic One
Graham Fire & Rescue
King County Fire Protection District 27
King County Medic One - PARAMEDIC
Mountain View Fire & Rescue District 44

Mukilteo Fire Department
Olympia Fire Department
Pierce County Fire Protection District 16
Port of Seattle Fire Department
Puget Sound Regional Fire Authority
Renton Regional Fire Authority
South Bay Fire District 8
South Pierce Fire & Rescue
Tukwila Fire Department
Tumwater Fire Department

Valley Regional Fire Authority
Anacortes Fire Department
North Whatcom Fire & Rescue
Port Angeles Fire Department
Aberdeen Fire Department
Hoquiam Fire Department
Ocean Shores Fire Department
Clark County Fire & Rescue
East Olympia Fire District 6
Longview Fire Department
S.E. Thurston Regional Fire Authority

Lacey Fire District 3 / Olympia FD / Tumwater FD
Vancouver Fire Department
Moses Lake Fire Department
Pasco Fire Department
Richland Fire & EMS
Yakima Fire Department
Colfax Fire Department
Spokane Fire Department
Spokane County Fire District 8
Spokane County Fire District 9
Spokane Valley Fire Department
Walla Walla County Fire District 4

CPAT

The Candidates Physical Ability Test (CPAT), is to determine if a candidate has the physical capabilities to become a firefighter. This part of the exam process must be completed within 6 months of the written firefighter exam. The CPAT exam consists of 8 events, this is a continuous exam and candidates will not have time in between each event to rest, except for a 20 second walk between each event. Candidates must wear a 50-pound weighted vest, which simulates the equipment required to fulfill the responsibilities of a firefighter, throughout the entire CPAT exam. Candidates must also wear long pants, a hard hat with chin strap, non-open toed shoes, and work gloves during the entire exam. This is a pass/fail exam, all 8 tasks must be completed in under 10 min and 20 seconds. If a candidate does not finish the exam in under the allotted time, the candidate will fail. If a candidate fails one of the events, their exam is over. Each candidate must pass all the 8 events in consecutive order to pass the CPAT exam. There is one opportunity for a retest without an additional pay if unable to pass the first time.

Stair Climb

- The first event is the stair climb. In this event candidates will wear an additional 25 pounds added to their already existing 50-pound vest. The 12.5 pounds on each shoulder will simulate the weight of an uncharged hose. This event is conducted on a stair climb treadmill to regulate the speed and duration of this portion of the exam. The first 20 seconds of the stair climb will be practice, the treadmill will be set at a rate of 50 stairs per minute, during this practice candidates may grab the railing but only during this part of the stair climb. After the 20 seconds have passed the treadmill will speed up to a rate of 60 steps per minute, at this time the candidate must let go of the railing and walk the steps for three consecutive minutes. If a candidate grabs the railing, they will receive a warning after the first time, and the second time the candidate will fail the entire physical exam. After completion of this event, the candidate will walk 85 feet to the next event.

Hose Drag

- The second event is the hose drag. This event no longer requires the extra 25 pounds however the 50-pound vest will be worn the remainder of the exam. After the 20 second walk from the stair climb, candidates must grab an uncharged hose and drag it 200 feet, after getting to the 200-foot mark the candidate must kneel and pull an extra 50-feet of hose. This event simulates prepping an uncharged hose off the fire truck. This event is the only event where a candidate can run. Candidates must stay inside the marked boundaries, if a candidate goes outside of the boundary or their knee comes off the ground during the kneel portion a candidate will receive a warning. The second time a candidate fails to stay in the boundaries the candidate will fail, and their exam will be over. After successful completion of this event, the candidate will walk 85 feet to the next event.

Equipment Carry

- The third event is the equipment carry. This event requires the candidate to remove two power saws from a tool shed and carry them 150 feet and put them back where they got them. The candidate must take one saw out at a time put them both on the ground, then pick them up before walking the 150 feet. To put the saws back the candidate must put both saws on the ground before putting them away one at a time. This is to simulate an on-scene firefighter who needs a saw, can get the saw, take it where it needs to be used, and then return it to the firetruck. Candidates must stay within the parameters, if a candidate fails to comply, they will receive a warning, then if it happens again the candidate will fail the exam and their exam will be over. After successfully completing this event, the candidate will walk 85 feet to the next event.

Ladder Raise and Extension

- The fourth event is the ladder raise and extension. This event is to simulate getting a ladder from the firetruck, then setting the ladder up as if a firefighter needed to get to the roof of a house, or a second story window. This event uses two, 24-foot, extension ladders that are set up for safety. The first ladder is connected to a retractable lanyard which is there for candidate safety. The first ladder, laying on the ground, will be lifted from the unhinged side of the ladder. Touching every rung of the ladder the candidate will walk the ladder up until it is stationary against the wall. The second ladder, already placed in an upright position, will be extended by a candidate until the ladder reaches from the ground to a specific spot on the roof, and then the candidate will retract the ladder. If a candidate misses a rung during the raise the candidate will receive a warning, and the second rung missed will require a failed exam. If a candidate lets go of the ladder and the lanyard is activated the candidate will fail and their exam will be over. On the extension when a candidate is lowering the ladder, if the rope is not let down in a hand-over-hand manner and the ladder is lowered in an uncontrollable manner the candidate will fail this event and their exam will be over. After successfully completing this event, the candidate will walk 85 feet to the next event.

Forcible Entry

- The fifth event is the forcible entry. This event is to simulate breaking down a door of a burning building with a sludge hammer in order to get inside. This event requires a candidate to use a 10-pound sludge hammer to strike a target that is one meter off the ground repeatedly until a buzzer is activated. Candidates must stay within the given boundaries, if failure to stay in the boundaries, the candidate will first receive a warning and the second time a candidate steps out of the boundaries the event will be failed and the candidate's exam will be concluded. However, if the event was successfully completing this event, the candidate will walk 85 feet to the next event.

Search

- The sixth event is the search. The search consists of a tunnel that is 64-feet long, and approximately 3-feet wide and 4-feet high. This tunnel is conducted like a maze, however it is in the dark. The candidate must navigate their way through the tunnel over and under obstacles. A couple of places the height of the tunnel will be reduced, and others will have boards that candidates must avoid in order to make it to the other side. This event is to simulate a firefighter looking through a house in thick smoke for individuals who were unable to make it out themselves. If a candidate cannot find their way, there are built in hatches that may be opened in an emergency. If a hatch is opened upon a candidate request, their exam will be over and will consist of a fail. After successfully completing this event, the candidate will walk 85 feet to the next event.

Rescue/Drag

- The seventh event is the rescue/drag. This event requires a candidate to drag a 165-pound mannequin, for 70 feet. This event is constructed to simulate helping an injured firefighter out of harm's way. The candidates must stay within the marked parameters, if a candidate steps out of these parameters, they will receive a warning, and the second time outside of the parameters the candidate will fail the event and their test will be over. After successfully completing this event, the candidate will walk 85 feet to the next event.

Ceiling Breach and Pull

- The eighth and final event of the CPAT is the ceiling breach and pull. This event will consist of a candidate using a pike pole to push up on a simulated hinged door in the ceiling which is roughly 60-pounds in weight three times. Then the candidate will pull down on a hook which simulates a ceiling device which is roughly 80-pounds, 5 times. The whole thing consists of one set, the candidate must complete four full sets to complete this event. This event is to simulate searching through ceiling tiles for burning pieces in a structure fire. If a candidate drops the pike pole, they must pick it up by themselves and continue, this will result in a warning, if the candidate steps out of the allotted parameters the candidate will receive a warning, if the candidate does not pull down or push up far enough then the candidate will have to do an extra repetition to complete a the full set. If a candidate receives two warnings the candidate will result in a failed event and the candidates test will be over.

During the CPAT it is very important to follow the rules. Two warnings in the same event will require the proctor to fail the candidate. A candidate can get ONE but not more than one warning on every event and still pass the physical exam. The CPAT is different than the written exam and for candidates to get their scores sent to the departments of their choice they must pass both parts of the exam.

Reserve Fire

Qualifications

Reserve firefighters must have a valid certification in both First Aid and CPR. Fire departments will also require you to attain an EMT or Paramedic certificate. Some departments will require these certifications prior to applying, while others will train individuals in these fields after becoming hired. Departments also require reserve firefighters to have passed the CPAT prior to applying. Departments do not always require a written exam to become a volunteer firefighter, however, departments do require a written exam for both reserve fire positions, and resident fire positions.

Relevance

As a reserve firefighter, you will be assigned essentially a part-time schedule. Reserve firefighter duties and schedules may vary by department or jurisdiction; but most require a minimum number of hours, or availability and training. Some require monthly reserve firefighter assistance at community events. Reserve firefighters are also required to dedicate a certain number of hours toward cleaning and maintenance of the fire station and vehicles as does every employee in a fire position. Reserve firefighter positions offer a unique opportunity to gain relevant experience and perspective toward a possible full-time firefighting position. As a reserve firefighter there are opportunities to work at a fire department while also as an EMT. Reserve firefighters will gain necessary training to be on the right track to fulfilling the remaining desired qualifications recommended by departments around the state. In order to become a reserve firefighter individual do not have to become a volunteer prior to applying, however keep in mind while practicing as an EMT, working as a volunteer is highly recommended to be well prepared to become a reserve or resident firefighter.

Rescue systems is a 40-hour course which introduces technical rescue, for example extracting an individual out of a mangled care would fall under Rescue Systems 1. As a reserve firefighter you will be trained as an IFSAC 1 and 2. IFSAC 1 teaches the importance of gear, fire suppression and common extractions for medical purposes. IFSAC 1 covers the basics, anything from knots to simple fire suppression. IFSAC 2 is where technique comes in handy and this is all taught while serving as a reserve firefighter.

Resident

Firefighting at a resident level consists of using the fire house as a primary residency while working through the week and typically having weekends off. Every resident trains with the career firefighters, learning more and more each day. Each training is paid for by the department and will provide training for IFSAC 1 and IFSAC 2. Each training will go more in-depth and keep everyone in check. Residency also helps keep certifications up to date. Trainings will provide a certification in Rescue Systems 1. Rescue Systems 1 consists of the basics in emergency rescue. Rescue Systems 1 provides training with repelling, and basic search/rescue. Resident firefighting is a great place to start while going to school. College is recommended for firefighters, with recommendations in studying fire science, or psychology. Being that most calls will be medical based, psychology will assist with the knowledge of employee's comfort in communicating to the patient. Especially with a psychiatric patient, with background knowledge of what disorders mean and how typical people respond to them will help a firefighter to ask the appropriate questions to receive the Chief complaint of the patient. Resident firefighters must attain a certification of an EMT.

Resident firefighting has the same amount of work load as a career firefighter but is still considered a lower-level position. For example, student teaching, student teachers are in a classroom with students giving lessons but are not yet certified teachers. Student teachers are held to the same standard as certified teachers however they do not hold the title of teacher. The same goes for a resident firefighter, gaining residency experience and training the same as a career firefighter until actually getting hired on as a career firefighter. Typically, if student teachers have good classroom performances, they will get offered a teaching job with the school they student taught with, or a neighboring school in the same district. The same happens with resident firefighters, once gaining the knowledge and skills needed to be a firefighter, that department may hire a resident as a full-time career firefighter, or if there are no openings, will provide an excellent reference to get hired by another department.

Traits Fire Districts in Washington Look For

Accountable – required or expected to justify actions or decisions; responsible.

If a firefighter is not accountable for their actions, then there is nothing holding a firefighter to their duties. Individuals must be accountable for their actions and must document their actions in order to successfully perform their job. If a firefighter were to perform a questionable action, other firefighters must hold them accountable and help them to understand why what they did was questionable. Not only as a firefighter are you accountable for your actions but the actions of the department of hire.

Adaptable – able to adjust oneself readily to different conditions.

Ever heard of, “hurry up and wait?”. As a firefighter this is almost every day. Sometimes the captain will ask you to do something, then change their mind in an instant before you finish. Nothing is ever as simple as doing one task at a time. Being able to change what is happening in an instant and then later go back and do the task that was at hand prior to the change is essential. Also, when fighting a fire, firefighters must be able to adapt to the everchanging dynamics of fire in question. Fires are often unpredictable.

Committed – feeling dedication and loyalty to a cause, activity, or job; wholeheartedly dedicated.

Being committed to serve the department of hire is a must. Without being committed and willing to act on every call, candidates could put coworkers, patients, or themselves in harm’s way. Firefighting is a high demanding job that if mistakes are made, people’s lives could be in danger.

Customer Service Oriented – ability to work with others.

In the firefighting profession, it is important to be able to communicate. This is not only with coworkers but also with patients. To figure out what the chief complaint is, firefighters must be able to be kind, and simplify questions in order to best benefit the patient and get them the treatment they require. Candidates must be able to work with diverse groups of people and be there to help them. By having a customer service background, being kind and helpful may come natural to some candidates.

Disciplined – showing a controlled form of behavior or way of working.

A lot of times firefighters are expected to do tasks without being asked, these must be held accountable by each firefighter. If tasks are not complete when expected, for example a rig check and making sure everything is in the rig at the time of a call. If a call goes out where there are missing tools or supplies, firefighters must improvise and make their job harder than it needs to be just because someone didn’t check to see if the supplies were where they needed to be. Each person must be disciplined on doing what they need to be doing while on the job, while also making sure they are up to date on their certifications and knowing what to do in an emergency.

Conclusion

Becoming a firefighter demanding both physically and mentally, which needs to be taken into consideration prior to the elaborate testing, evaluation and hiring process. This project provides background information on structure firefighting, volunteer firefighting, wildland firefighting, emergency medical technicians, paramedics, and what the role of each of these have in becoming a career firefighter. It is important to keep in mind that there are ways to become a structure firefighter without any of the previous suggestions. However, it is unlikely to be hired right away without any. Firefighting is one of the most competitive professional occupations, which is why it is so important to volunteer and become an EMT prior to applying to a fire house.

If I were to recommend three suggestions mentioned in this manual to someone attempting to become a firefighter, I would first say, become a wildland firefighter. Wildland firefighting provides individuals fire experience by learning how fire behaves when in contact with various materials. The second suggestion would be that after a couple seasons of wildland firefighting become an EMT. Working on an ambulance prior to getting hired with a fire department will allow candidates to practice the medical side of firefighting. While working as an EMT, I would also highly recommend volunteering for a fire house. Volunteering at the same time as working as an EMT will help working with fire and emergency medicine together. In all, structure firefighting is a mix of fire, rescue, and emergency medicine and volunteer firefighting which allows individuals to put in all of their knowledge together to prove they have what it takes to become a full-time career firefighter.

One of the greatest challenges to becoming a firefighter is the written exam. After receiving scores from the written exam, fire departments will send interview invitations to individuals who scored well. It is important to score above an 80% to get an interview invitation. Fire departments are in search for the best crew possible and it is important that candidates whom are chosen will fit the open position.

Glossary

Acronyms

GED – General Equivalency Diploma

EVIP – Emergency Vehicle Incident Prevention

CPR – Cardio Pulmonary Resuscitation

IFSAC – International Fire Service Accreditation Congress

BLS – Basic Life Support

EMT – Emergency Medical Technician

NREMT – National Registered Emergency Medical Technician

AEMT – Advanced Emergency Medical Technician

DNR – Department of Natural Resources

NTN – National Testing Network

PST – Public Safety Testing

CPAT – Candidate Physical Ability Technician

Answers for Example Questions

Example One: D) M3 → B10 → B5 → O3.

Example Two: A) Tell the firefighter that you washed the dishes, but you won't be offended if he wants to rewash the ones he plans to use.

Example Three: B) .5 meters

Example Four: C) 2143

Example EMT Question

Example One: D) He has a lower GI bleed and should be given O2 via nasal cannula at 4LPM and transported in a position of comfort while treating for shock

Example Two: D) Perform a rapid trauma assessment

(EMT Practice Tests, 2016), (Study Firefighter Written 2012)

Terms

Pulaski – Half axe half hoe

McLeod – Fire rake

Agency – fire department

Vibram Sole – Fire resistant bottom of a shoe

Suppression – To put out a fire

Medical director – The practicing emergency room physician

References

- Advanced Emergency Medical Technicians. Retrieved October 10, 2018, from <https://www.nremt.org/rwd/public/document/advancedemt>
- Emergency Medical Technicians (EMT). Retrieved December 30, 2018, from <https://www.nremt.org/rwd/public/document/emt>
- EMT Practice Tests. (2016). Retrieved November 5, 2018, from https://www.emt-national-training.com/practice_tests.php
- Fimrite, P. (2019, March 15). Explosions, fires light up Bethel Island homes. Retrieved from <https://www.sfgate.com/bayarea/article/Explosions-fires-light-up-Bethel-Island-homes-13690241.php> Ifocus.us. Kittitas Valley Fire and Rescue. Retrieved October 02, 2018, from <http://kvfr.org/>
- IFSAC. Fire fighter One and Two. Retrieved November 02, 2018, from <https://ifsac.org/about>
- Lacey, Washington. Retrieved September 25, 2018, from <http://laceyfire.com/>
- National Registered Paramedics. Retrieved October 26, 2018, from <https://www.nremt.org/rwd/public/document/paramedic>
- National Testing Network. Retrieved November 08, 2018, from https://www.nationaltestingnetwork.com/publicsafetyjobs/search.cfm?utm_campaign=in-dexanalysis&utm_medium=slider&utm_source=index&position=2
- National Testing Network. Retrieved November 14, 2018, from https://nationaltestingnetwork.com/publicsafetyjobs/cpat_info.cfm
- Public Safety Testing. Retrieved November 12, 2018, from <https://www.publicsafetytesting.com/wizard/department/testsets/>
- Shoreline Fire Department. Retrieved September 27, 2018, from <http://www.shorelinefire.com/>
- Study Firefighter Written 2012. Retrieved February 03, 2019, from https://study.com/articles/Volunteer_Fireman_Requirements_for_Volunteer_Firefighters.html
- U.S. fire statistics: Fire department responses, by type of call 2017 | Statista. Retrieved December 22, 2018, from <https://www.statista.com/statistics/376683/number-of-fire-department-responses-in-the-us-by-type-of-call/>
- U.S. Fish & Wildlife Service: Wildland Firefighter Job Description Retrieved February 09, 2019, From <https://www.fws.gov/fire/downloads/wfjobdesc.pdf>