

# Fire Fighters



## Occupational Brief Title Codes:

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## Occupational Subtitles:

- Battalion Chiefs
- Fire Captains
- Fire Chiefs
- Fire Inspectors
- Fire Investigators
- Fire Marshals
- Fire Prevention Officers

## Work Classification Based Related

### D.O.T. Occupations:

- Correction Officers
- Harbor Masters
- Security Guards
- Special Agents

## Interests Based Related

### G.O.E. Occupations:

- Alarm Investigators
- Fire Rangers
- Smoke Jumpers
- Surveillance System Monitors

## Skills Based Related

### O\*NET Occupations:

- Emergency Medical Technicians and Paramedics
- Human Resources Managers
- Police and Detectives

## Noteworthy Quote:

*"Firefighting is a wonderfully fulfilling career for anyone who sincerely loves to help people. The work is labor intensive during emergencies, and requires a great deal of courage to put your own life at risk to help save another's. However, we also spend a great deal of time doing more routine work, such as inspections and equipment upkeep. Although much less exciting than emergency calls, these job duties ultimately save lives through prevention."*

**–Yven Osler, Fire Fighter, Minneapolis, Minnesota**

**Fire fighters** ( fire `fight-ers) fight fires to prevent loss of life and minimize property damage; and conduct public education programs on fire prevention and safety.

Fire is a major cause of property destruction in the United States. Each year fires cause over ten billion dollars in damage to homes and buildings. On average, 3,800 people die in any given year from fires; and more than 20,000 people suffer injuries. Many fire fighters also suffer death and injury from fighting fires. Fire fighters and other fire prevention specialists work to ensure that buildings and communities are fire-safe. They work to keep fires from starting by reviewing emergency plans, inspecting buildings, and educating the public about fire safety techniques. When fires do start, they work to put them out and keep them from spreading.

## Work Performed

Fire fighters supply a vital service to their communities. Career fire fighters generally receive a salary, while in some rural regions and suburban communities they may be volunteers or paid per call personnel. When on duty, fire fighters must be ready to respond in seconds to an alarm. They may go to a small trash fire that can be extinguished with hand-held extinguishers. Or they may go to a structural fire that requires hours of effort, by several fire companies, to control and extinguish the blaze.

Since fire fighting is a dangerous, complex job, the work is organized and disciplined. Each fire fighter or team of fire fighters has specific tasks assigned by a supervisor. Supervisors may include **fire lieutenants**, **fire captains**, **battalion chiefs**, **assistant fire chiefs**, **deputy fire chiefs** and **fire chiefs**. Supervisors are responsible for coordinating all fire fighting activities including training, administering laws and regulations affecting departments, and evaluating and updating fire prevention and



*Fire fighters supply a vital service to their communities and receive formal education and training.*  
Photo by Amy Elliott

fire control policies. They also coordinate mutual fire protection plans with surrounding municipalities, evaluate efficiency of personnel, compile reports, and prepare budgets.

When responding to a fire, fire fighters may be assigned specific tasks which include the use of forcible entry tools. Some fire fighters lay out and connect hoses, attach nozzles, or turn on hydrants. Others may advance hoses into the building to spray water on the fire, set up ladders, or operate other fire or rescue equipment. Experienced fire fighters can anticipate where a fire will spread, and they can take measures to deal with it.

After fire fighters extinguish a fire and before they leave the scene, they check to make sure all danger of fire is over. They often leave fire fighters at the scene to prevent the recurrence of fire at the site. Fire fighters also do salvage work. They spread salvage covers during a fire to lessen damage from water. Later they remove water from buildings and cover doors, windows, and roof openings to protect the building from the weather.

Once a fire is extinguished, and especially if it is of suspicious origin, or caused death or injury, *fire investigators* or *fire marshals* look for evidence pointing to the cause or causes of the fire. They look for evidence of arson (fires deliberately set). Fire investigators determine the fuel and heat sources that cause these fires. Fire marshals or fire investigators may submit reports to a district attorney or testify in court. They cooperate with others who investigate the fires.

Some fire departments have special units such as hazardous material response or rescue units. These units respond to various, non-fire related emergency incidents, such as oil spills, accident scenes, or to rescue drowning persons. Emergency medical services have also become an integral part of many fire departments. They answer calls to give emergency medical care to heart attack, stroke, or choking victims, for instance.

Fire fighters are always sure to maintain and keep all equipment ready for immediate use. They participate in practice drills and training seminars. They study fire training manuals and textbooks to keep up with advances in fire-fighting techniques and to prepare for promotion tests. Fire fighters who live at the station for duty periods also have housekeeping duties and cleaning tasks.

In addition, most fire departments have responsibility for fire prevention activities. *Fire inspectors* inspect buildings and their storage contents for trash, rubbish, and other materials that would ignite easily. They look for worn-out or exposed wiring and other fire hazards. Especially important are inspections of schools, hospitals, nursing homes, theaters, hotels, and other places where the public gathers. Inspectors check these buildings regularly.

In some localities, fire prevention bureaus must certify that the premises meet standards before the owners can move in or rent a building. *Fire prevention officers*, sometimes called *code enforcement officers*, review blueprints and building plans for new or remodeled buildings to ensure that the structures meet fire safety and building codes. These

standards specify fire protection systems built into the structure, the building materials, the distances between buildings, the number and location of fire exits and escapes, the maximum number of occupants, the provisions for the storage of hazardous or flammable materials, and other safety features.

In national parks and forests, *forest fire inspectors* and *prevention specialists* spot fires from watchtowers and report their findings to headquarters by telephone or radio. When fires break out, crews of fire fighters are brought in to suppress the blaze. They often create fire lines by cutting down trees and digging out grass and all other combustible (burnable) vegetation in the path of the fire to deprive it of fuel. Elite fire fighters, called *smoke jumpers*, may parachute from airplanes to reach otherwise inaccessible areas.

Fire departments have also increased their emphasis on public fire education. Fire fighters work to inform the public on fire prevention and fire safety measures. They speak to school classes, civic groups, and other gatherings. They may run films, show how fire-fighting equipment works, or teach fire survival skills. Schools and communities also sponsor educational programs to prevent fires, save lives, and teach other survival skills.

### Working Conditions

Fire fighting can be dangerous work. It is often stressful and takes great physical effort. Fire fighters also work in all kinds of weather and conditions. Fire fighters must always assess the risks in any situation to prevent injury or death from heat, flames, smoke, sudden cave-ins of floors, toppling walls, and poisonous fumes. They may come in contact with gases and chemicals that may explode in fires, or radioactive or other hazardous materials that may have immediate or long-term effects on their health. Fire departments supply protective equipment including coats, pants, boots, gloves, and helmets, as well as breathing apparatus (such as masks and oxygen tanks) to help prevent injuries.

### Hours and Earnings

Hours vary widely. Fire fighters, lieutenants, and captains often work more than 50 hours a week. Their services are needed nights, weekends, and holidays year-round. In some agencies, they are on duty for 24 hours and then off for 48 hours. In others, they work a 10-hour day shift for several days, a 14-hour night shift for several nights, then have several days off. By law, fire fighters who average more than a certain number of hours a week are required to be paid overtime. Fire inspectors, fire investigators, fire chiefs, and fire prevention officers usually have more regular hours.

Earnings for fire fighters depend on the size of the jurisdiction, its location, and the fire fighters experience and administrative duties. In general, large cities tend to pay more than small ones. According to the Bureau of Labor Statistics, earnings for fire fighters ranged from under \$20,000 a year to over \$66,000 a year in 2006. Fire inspectors and investigators earned between \$29,000 and \$75,000 a year.

Fire captains, battalion chiefs, fire marshals, and fire prevention officers earned anywhere from \$36,000 to \$98,000 a year. Earnings for fire chiefs ranged from a low of \$60,000 a year to well over \$100,000 a year.

According to a report from the International City-County Management Association, sworn full-time fire fighters earned between \$41,000 and \$52,000 a year. Fire prevention/code inspectors earned \$43,000 to \$55,000 a year. Fire lieutenants earned \$45,000 to \$53,000 a year; fire captains earned \$49,000 to \$59,000 a year; battalion assistant fire chiefs earned \$58,000 to \$74,000 a year; deputy chiefs earned \$63,000 to \$80,000 a year; and fire chiefs earned \$68,000 to \$90,000 a year.

In many fire departments, fire fighters get longevity pay, that is a yearly increase for serving a stated number of years on the job. This increase may amount to around \$1,000 or more a year. Most career fire fighters receive an allowance for uniforms. Fringe benefits vary with the location and size of the community, but generally include medical and liability insurance, vacation and sick leave, and some paid holidays. Most fire fighters are covered by pension plans that enable them to retire at half pay after twenty-five years of service, or if disabled in the line of duty. They also receive compensation for injuries incurred in the line of duty.

### **Education and Training**

Requirements vary. However, candidates must have a high school diploma or its equivalent in order to take the tests to become fire fighters. Some cities even require their fire fighters and officers to have a college degree. Other local requirements vary as well. In most places applicants must pass a written test, a medical examination (including drug screening), and tests of coordination, stamina, agility, and strength. The highest scorers on these tests are the most likely to get jobs.

Students interested in fire protection careers should take courses in chemistry, physics, shop, blueprint reading, technical drawing, mathematics, and physical education. Other helpful courses are Spanish and computer training. Participating in sports and experience in the construction industry may also prove useful. Postsecondary education in fire science and experience as an emergency medical technician (EMT) or paramedic often adds extra points to an applicant's score.

Most fire departments require new fire fighters to successfully complete at least six to twelve weeks of instruction at a training center. Classroom subjects include fire fighting techniques, fire prevention, hazardous materials, local building codes, and emergency medical procedures. In the field, fire fighters learn to use ladders, hoses, extinguishers, and breathing equipment. They practice search, rescue, and forcible entry methods, and receive special training in emergency medical techniques.

On completion of this training, new fire fighters are assigned to a fire company where they serve a probationary period ranging from six months to a year. In many parts of

the United States, fire fighters are required to complete EMT training in order to qualify as fire fighters. Many jurisdictions also require on-going education and training for fire fighters to maintain their position and/or qualify for advancement.

Many jurisdictions have accredited apprenticeship programs lasting up to four years. Programs might combine instruction and on-the-job training in subjects such as fire fighting techniques and equipment, chemical hazards of combustible building materials, emergency medical procedures, hazardous material training, special rescue training, and fire prevention and safety.

Some fire fighters attend training sessions sponsored by the U.S. National Fire Academy. Some states also have extensive fire fighter training and certification programs. In addition, many two-year and four-year colleges offer courses in fire administration, fire science, fire protection technology, and fire engineering. Advancement usually requires expertise in advanced fire fighting equipment and techniques, building construction, emergency medical technology, writing, public speaking, management and budgeting procedures, and public relations.

### **Certification, Unions, and Professional Societies**

Most career fire fighters, especially those in larger cities, are union members. Many fire fighters also belong to professional societies which work to increase the knowledge and skills of all fire fighting, prevention, and investigation specialists. About 280,000 fire fighters and paramedics belong to the International Association of Fire Fighters (IAFF). Other organizations include the International Association of Arson Investigators (IAAI), and the International Association of Fire Chiefs (IAFC). The National Fire Protection Association (NFPA) offers certification programs including Certified Fire Protection Specialist; Certified Fire Inspector; Certified Fire Plan Examiner; Certified Building Inspector I or II; and Certified Building Plans Examiner.

### **Personal Qualifications**

Fire fighters must be at least 18 years of age, but may be required to be at least 21 years old. They must meet the physical requirements of the department hiring them, including mechanical aptitude, endurance, and strength. They may also be required to be residents of the town or city in which they work. Courage, integrity, initiative, and the ability to make quick decisions are important. Fire fighters need sound judgment and the ability to think logically under pressure.

Fire fighters need to be dependable, self-disciplined, and have a sense of public service. They should have a congenial temperament to live and work closely with others for long hours under stress. They must be willing to obey orders and to cooperate as members of a team. Officers must also have leadership qualities to direct personnel, and establish and maintain discipline and efficiency. Fire inspectors, in particular, should have a talent for communicating clearly with all kinds of people.

Occupations can be adapted for workers with disabilities. Persons should contact their school or employment

counselors, their state office of vocational rehabilitation, or their state department of labor to explore fully their individual needs and requirements as well as the requirements of the occupation.

### Where Employed

In 2006, there were over 283,000 paid career fire fighters at work in the United States. Many more serve as volunteer fire fighters in rural residential areas. According to the U.S. Fire Administration, 70 percent of fire companies are staffed by volunteer fire fighters. There were about 51,000 first-line supervisors/managers of fire fighting and prevention workers, and over 13,000 fire inspectors and investigators.

Most paid career fire fighters serve in municipal or county fire departments. Some big cities have several thousand fire fighters; small towns may have perhaps a dozen. State, federal, and military installations, including airports, hire fire fighters. Private employers such as factories, sawmills, and oil refineries, and universities also employ full-time fire fighters and fire inspectors.

### Employment Outlook

The Bureau of Labor Statistics projects employment of fire fighting and prevention workers to grow by 22.9 percent through the year 2014—an increase of around 68,000 jobs. An additional 87,000 positions are also expected to open due to replacement needs. However, competition for fire fighting positions is stiff. Fire fighting attracts many applicants because a high school education is usually enough for entry, the pay is good, and retirees get a pension.

Most of the projected job growth will also come from growing suburbs and rural communities that are replacing volunteer fire fighters with career staff. Many of these positions will be filled by the already qualified practicing volunteers. As a result, the number of qualified applicants will usually be larger than the number of positions. Still, fire protection is an essential service, and citizens put pressure on city officials who try to cut these services.

### Entry Methods

To become fire fighters, job seekers must pass the required tests. Notices of these tests appear on bulletin boards in public buildings such as fire stations, post offices, and courthouses. State and local departments of labor and newspapers also list notices of scheduled tests and where to apply for test forms. Graduates of two-year or four-year fire fighting or fire protection programs can get help from their schools' career services office. They can also write to industrial plants, or other employers of fire prevention and safety specialists.

### Advancement

In most fire departments, fire fighters advance at regular intervals for the first three to five years. They may then become eligible for promotion to driver, lieutenant, captain,

battalion chief, assistant chief, deputy chief, and then chief. For each of these posts, fire fighters take tests. Promotion depends on test scores, the supervisor's rating of the candidate, length of employment, and education.

For promotion to the rank of battalion chief and above, many departments require a bachelor's degree, preferably in fire science, public administration, or a related field. An associate's degree is required for executive fire officer certification from the National Fire Academy (starting October 2009, candidates will be required to have a bachelor's degree). Fire inspectors in fire departments may become officers or heads of fire prevention bureaus. Fire inspection workers in factories may become plant fire marshals or corporate or plant risk managers.

### For Further Research

**International Association of Fire Fighters**, 1750 New York Avenue, N.W., Suite 300, Washington, DC 20006-5395. Web site: [www.iaff.org](http://www.iaff.org)

**National Fire Protection Association**, 1 Batterymarch Park, Quincy, MA 02169-7471. Web site: [www.nfpa.org](http://www.nfpa.org)

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