



California Occupational Guides

Guide for



Weatherization Installers and Technicians in California

May also be called: Weatherization and Insulation Crew Technicians; Weatherization and Insulation Technicians; Weatherization Services Technicians; Weatherization Technicians

What Would I Do?

In 1976, the U.S. Department of Energy created the Weatherization Assistance Program (WAP) to assist low-income families in improving the energy efficiency of their homes using advanced technologies. In addition to increasing energy conservation and reducing dependence on foreign oil, WAP also helped decrease the cost of energy for these families. In order to provide energy cost savings to families in need, WAP weatherized their homes.

Today, Weatherization Installers and Technicians perform a variety of activities to weatherize homes and make them more energy efficient. They inspect buildings, perform energy audits, and advise clients on weatherization energy conservation measures in accordance with identified needs and applicable energy regulations, codes, policies, or statutes. Technicians identify improvements for residential and commercial buildings, including repair work, modification, or replacement. They may also explain energy saving techniques, such as the use of low flow showerheads and energy efficient lighting.

Using furnace efficiency analysis equipment, Weatherization Technicians test and diagnose air flow systems. They insulate attics, crawl spaces, basements, walls, and sub-floors by applying materials such as loose-fill, blanket, board, and foam insulation. They wrap water lines with duct and pipe wrap, and wrap water heaters with water heater blankets. They repair, replace, and weather strip doors and windows. Technicians perform heating, ventilating, and air-conditioning (HVAC) work by installing and sealing air ducts, combustion air openings, or ventilation openings to improve heating and cooling efficiency. They prepare and apply weather-stripping, glazing, caulking, or door sweeps to reduce energy losses. They may also make minor repairs using basic hand or power tools and materials such as glass, lumber, and drywall.

Some Weatherization Technicians may be involved in the administrative and business aspects by preparing cost estimates or specifications for rehabilitation or weatherization services. In addition, some provide customer service by contacting residents or building owners to schedule appointments. Technicians may also be tasked with maintaining activity and financial logs, preparing bids, contracts, or written reports.

Tools and Technology

Weatherization Technicians use a variety of tools in the course of their work, including gauges, inspection fixtures, leak testing equipment, moisture detectors, and voltage or current meters. They also use software, such as energy auditing, calendar and scheduling, customer relationship management, energy use ratings databases, and office suite.

Important Tasks and Related Skills

A formal survey to determine specific skills requirements for Weatherization Installers and Technicians has yet to be completed. Therefore, the sample skills shown below are common for the two closest occupations to Weatherization Installers and Technicians: Insulation Workers, Floor, Ceiling, and Wall and Carpenters. Each task is matched to a sample skill required to carry out the task.

<i>Task</i>	<i>Skill Used in this Task</i>
Use lead-safe work practices when cutting into a wall to install a wall heater in pre-1978 residences that include containing the wall area, minimize paint dust, and clean-up thoroughly.	Installation and Operation Monitoring
Conduct blower door testing that measures areas of air leakage from a home or structure.	Building and Construction
Conduct a visual inspection of ducts to determine the presence of asbestos and gauge the safety/feasibility of performing the repair or modification needed.	Public Safety and Security
Conduct post-weatherization installation assessments to ensure continued health and safety/feasibility of performing the repair or modification needed.	Quality Control Analysis
Test and diagnose air flow systems, using furnace efficiency analysis equipment.	Operation and Control
Apply insulation materials such as loose blanket, board, and foam insulation to attics, crawl spaces, basements, or walls.	Manual Dexterity
Explain recommendations, policies, procedures, requirements, or other related information to residents or building owners	Customer and Personal Service
Explain energy conservation measures, such as the use of low flow showerheads and energy efficient lighting.	Education and Training
Install and seal air ducts, combustion air openings, or ventilation openings to improve heating and cooling efficiency.	Multilimb Coordination
Install storm windows or storm doors and verify proper fit.	Static Strength
Prepare cost estimates or specifications for rehabilitation or weatherization services.	Judgment and Decision Making

Source: U.S. Department of Labor [Occupational Information Network \(O*NET\)](http://online.onetcenter.org) at online.onetcenter.org

Working Conditions

Weatherization Technicians generally work indoors in residential and industrial settings. They typically work eight-hour shifts, although longer shifts may be required on occasion. Technicians spend most of the day on their feet, either standing, bending, or kneeling. They also work from ladders or in confined spaces. Their work usually requires more coordination than strength, although some jobs may require employees to lift and move up to 250 pounds. In industrial settings, Technicians often insulate pipes and vessels at temperatures that may cause burns. Small particles from insulation materials can irritate the eyes, skin, and respiratory system.

Technicians who install weatherization insulation on windows, floors, ceilings, and walls may experience a high rate of injuries and illnesses. Consequently, workers must follow strict safety guidelines to protect themselves from hazardous materials and potential dangers. They must keep work areas well ventilated; wear protective suits, masks, and respirators; and take decontamination showers when necessary.

This occupation is not heavily unionized. Some Weatherization Technicians may belong to unions for construction workers, insulation workers, and roofers.

Will This Job Fit Me?

The job of Weatherization Installers and Technicians may appeal to those who enjoy working on projects that require practical, hands-on problems and solutions. This occupation may interest those who are attentive to detail and thorough in completing work tasks.

What Wages and Benefits Can I Expect?

Wages

A formal salary survey is not available; however, references to wages range from \$10 to \$20 per hour. All salaries depend on the pay structure established by each employer for work performed, the nature of the project, and the skill of the specialists. Generally, workers in large cities earn higher wages than those who work in small towns and rural areas.

Benefits

Benefit packages vary widely from company to company. Weatherization Installers and Technicians generally receive health insurance, vacation, sick leave, and holiday pay. The type of benefit package is determined by company policy or union contract. Self-employed Installers are responsible for purchasing their own benefits.

What is the Job Outlook?

As this is an emerging occupation, the number of Weatherization Installers and Technicians in California is unknown at this time. Employment opportunities should increase in the future considering society's growing interest in environmental protection and the development of alternative energy sources.

How Do I Qualify?

Education, Training, and Other Requirements

Employers prefer to hire high school graduates. Weatherization Technician trainees generally receive instruction and supervision from more experienced mentors. Many Technicians also obtain their skills and knowledge through training from the California Weatherization Assistance Program through the California Department of Community Services and Development. On-the-job training can take several years. As they gain experience, trainees receive less supervision, more responsibility, and higher pay.

Early Career Planning

High school courses in drafting, woodshop, mathematics, science, English, and general construction are helpful.

Licensing and Certification

There are no licensing requirements for Technicians; however, the Environmental Protection Agency (EPA) offers mandatory certification for workers who remove and handle asbestos in the process of installing weatherization insulation. Contact the EPA for additional information.

In addition to a valid California driver license, with a good driving record, those who transport hazardous materials in California must have a commercial driver license with a Hazardous Materials

(HazMat) endorsement, which can be obtained through testing at the California Department of Motor Vehicles. To obtain or renew a HazMat endorsement, applicants must pass a background check or security threat assessment through the Transportation Security Administration. Transporters of hazardous waste must also hold a valid registration from the Department of Toxic Substances, which is renewable each year.

The Building Performance Institute, Inc. (BPI) offers training to become a Certified BPI Weatherization Technician. The training courses provide Weatherization Technicians with the skills and techniques to properly air seal and insulate a residential home or a commercial building. Technicians will learn how to diagnose and prioritize energy retrofit work in a home. Although this certification is not mandatory, it is encouraged for those who want enhanced employment opportunities.

For more information, go to the U.S. Department of Labor's Career InfoNet Web site at www.acinet.org and scroll down to "Career Tools." Click on "Certification Finder" at www.acinet.org/certifications_new/default.aspx and follow the instructions to locate certification programs.

Where Can I Find Training?

There are two ways to search for training information at www.labormarketinfo.edd.ca.gov/?Pageid=1013:

- [Search by Field of Study](#) to find what programs are available and what schools offer those programs. You may use keywords such as: Building Construction Technology and Weatherization.
- [Search by Training Provider](#) to find schools by name, type of school, or location.

Contact the schools you are interested in to learn about the classes available, tuition and fees, and any prerequisite course work.

Where Would I Work?

A formal survey of industries has not been conducted for Weatherization Installers and Technicians at this time. However, references to the broader occupational group of Construction and Related Workers, All Other indicate that the largest industries employing Weatherization Technicians are Building Equipment Contractors and Other Specialty Trade Contractors.

Finding a Job

Direct application to employers remains one of the most effective job search methods. Jobs may also be found through registration with temporary employment agencies and through classified advertisements in newspapers, trade publications, and Internet job listings. **Online job opening systems** include JobCentral at www.jobcentral.com and CalJOBSSM at www.caljobs.ca.gov.

To find your nearest One-Stop Career Center, go to [Service Locator](#) at www.servicelocator.org. View the [helpful job search tips](#) at www.labormarketinfo.edd.ca.gov/occguides/JobSearchTips.pdf for more resources. (requires [Adobe Reader](#)).

Yellow Page Headings

You can focus your local job search by checking employers listed online or in your local telephone directory. Below are some suggested headings where you might find employers of Weatherization Installers and Technicians.

- Energy Conservation
- Energy Efficiency
- Home Improvement
- Repair and Maintenance
- Weatherization
- Weatherization and Home Repair
- Weatherizing

- Weather Stripping Contractors

Find Possible Employers

To locate a list of employers in your area, use “Find Employers” on the LaborMarketInfo Web site at www.labormarketinfo.edd.ca.gov/aspdotnet/databrowsing/empMain.aspx?menuChoice=emp

- Select the search for employers by occupation.
- Select a geographic area.
- Search for an occupation by keyword, occupation, or category.
- Select one of the top industries that employ the occupation.
- This will give you a list of employers in that industry in your area.
- Click on “View Filter Selections” to limit your list to specific cities or employer size.
- Click on an employer for the street address, telephone number, size of business, Web site, etc.
- Contact the employer for possible employment.

Where Could This Job Lead?

Skilled Weatherization Installers and Technicians may advance to management positions, or they may set up their own weatherization business. For those who would like to advance, it is increasingly important to be bilingual and be able to relay instructions and safety precautions to workers who are non-English speakers.

Related Occupations

Below is a list of occupations related to Weatherization Installers and Technicians.

- Construction and Building Inspectors (SOC 47-4011)
- Insulation Workers, Floor, Ceiling, and Wall (SOC 47-2131)
- Solar Photovoltaic Installers (SOC 47-4099.01)
- Solar Thermal Installers and Technicians (SOC 47-4099.02)

Other Sources

- California Department of Consumer Affairs, Contractors State License Board
www.cslb.ca.gov
- California Department of Motor Vehicles
www.dmv.ca.gov
- California Environmental Protection Agency
www.calepa.ca.gov
- U.S. Department of Homeland Security, Transportation Security Administration
www.tsa.gov
- U.S. Environment Protection Agency
www.epa.gov
- U.S. Green Building Council
www.usgbc.org
- Building Performance Institute, Inc.
www.bpi.org
- Home Builders Institute
www.hbi.org

These links are provided for your convenience and do not constitute an endorsement by EDD.

For the Career Professional

The following codes are provided to assist counselors, job placement workers, or other career professionals.

System	Code
SOC – Standard Occupational Classification at www.bls.gov/soc	47-4099
O*NET – Occupational Information Network at online.onetcenter.org	
Weatherization Installers and Technicians	47-4099.03

The California Occupational Guides are a product of:
The California Employment Development Department
Labor Market Information Division
www.labormarketinfo.edd.ca.gov

Published: 10/13/2011

This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.

