

Weatherization in Arkansas: A Gem of a Program

Although the United States has only one diamond mine, located in Arkansas, Americans consume 50% of the world's diamond supply. This disproportionate consumption pattern extends beyond precious gems. Low-income Americans consume less energy than other households, yet they spend a greater percentage of their income on energy. On average, low-income households spend 14% of their total income on energy costs, compared with 3.5% for other households. Rising energy prices compound this heavy burden. To address this situation, Arkansas partners with the U.S. Department of Energy's (DOE) Weatherization Assistance Program (Weatherization). Weatherization reduces energy costs for low-income families by improving the energy efficiency of their homes, while ensuring their health and safety.

Recognizing the multiple benefits of the program, Arkansas was the first state in the nation to file a formal Weatherization Plan with the federal government. Arkansas' program, which is administered through the Office of Community Services (OCS) and operated by 16 local agencies, has weatherized over 54,000 homes in Arkansas to date. OCS leverages core DOE funding to provide additional services.

In 1999, Arkansas weatherized 597 homes with DOE funds and an additional 594 homes with leveraged resources.

EXCAVATING THE ENERGY SAVINGS

The extreme Arkansas temperatures, which range from lows of 15 degrees Fahrenheit to highs of 100 degrees Fahrenheit, can drive up monthly energy bills. Weatherization measures improve the energy efficiency of a home, which makes it easier to cool in the summer and keep warm in the winter. These measures reduce home energy consumption, which lowers the household's energy bill and improves comfort for the occupants.

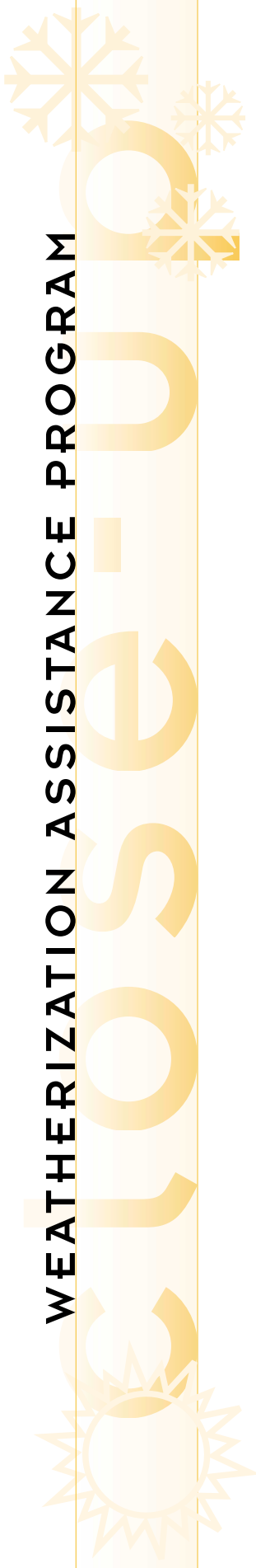
NATIONAL WEATHERIZATION PROGRAM

Homes weatherized in 1999	68,000
DOE allocations in 1999	\$135 million
Average annual energy cost savings per household	\$300
Average space heating savings	25-30%
Energy benefits returned for every \$1 invested	\$2.10
Jobs supported	7,000

ARKANSAS

Homes weatherized in 1999 (with DOE \$)	597
DOE funding in 1999	\$1.2 million
Clients served in 1999	1,269
Elderly	19%
People with disabilities	20%
Families with children	58%

Weatherization crews use a computerized energy audit to determine the most cost-effective energy efficiency measures to install in each home. Diagnostic equipment, like a blower door, is used to identify pressure imbalances and air infiltration. Crews test gas appliances for carbon monoxide, a colorless, odorless gas that can be deadly in large quantities. They also install smoke detectors into every home as a preventive measure.



Typical measures include blowing insulation in the walls, floors, and ceilings; wrapping water heaters and pipes; and adding weatherstripping to doors and windows. Clients are also educated on the proper use and maintenance of the installed energy efficiency measures.

Weatherization crews improve the energy efficiency of low-income homes and they safeguard the health and safety of occupants. Sometimes, health and safety conditions must be addressed before weatherization work can be performed. Kirk and Marian Miller* applied to the Community Action Program for Central Arkansas (CAP) for help with their drafty home and high energy bills. The home also had lead-based paint, a serious health threat, which had to be controlled before the agency could install energy efficiency measures. CAP partnered with the Northcentral Arkansas Development Council (NADC) to deliver weatherization and lead paint control services.

The lead paint hazard was mitigated using leveraged funds from NADC. Then the crew conducted an energy audit and found the house lacked insulation and the doors were damaged, causing massive air leaks. Insulation was blown into the ceiling, the front door was repaired, and the back door was replaced.

Weatherization measures improve health and safety conditions for the community as well. Lowering residential energy demand reduces power plant emissions of nitrogen oxides, sulfur dioxide, and other pollutants. This helps to improve local air quality and avoid adverse health effects, particularly asthma.



Universal Housing Development Corporation provided extensive weatherization work for this Arkansas home including installing insulation and reducing air infiltration.

MULTI-FACETED BENEFITS

Virginia Gills*, a 76-year-old, disabled client from Hot Springs, was apprehensive about the weatherization process, but needed help with her energy bills. The weatherization crew reduced the air leakage around doors and windows and fixed her furnace. "I wasn't afraid of them coming...It means a lot when you're by yourself," she wrote.

Virginia thanked the crew for the money she saved, which allowed her to purchase more groceries. By decreasing energy bills for low-income families, Weatherization allows more money to be spent locally, which stimulates growth. Every \$1 retained in the community produces an estimated \$3 in multiplier benefits.

WEATHERIZATION WORKS!

From families to state officials, Arkansans recognize the success of Weatherization. To honor Weatherization's accomplishments, Arkansas declared October 30 as Weatherization Day 2000, and Governor Mike Huckabee signed an official proclamation to commemorate the program's success.

Nationally, Weatherization returns \$2.10 in energy-related benefits for every \$1 invested in the program. Weatherization curbs national energy consumption and reduces demand for imported oil. Weatherization works for Arkansas and America!

**Names have been changed to protect the privacy of the subjects.*

TO LEARN MORE ABOUT THE WEATHERIZATION ASSISTANCE PROGRAM, CONTACT:

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Visit the Weatherization Web site at: www.eren.doe.gov/buildings/weatherization_assistance or call the Energy Efficiency and Renewable Energy Clearinghouse at: 1-800-DOE-3732

