# Introduction to Weatherization

# Quality Control Inspector

Learning Objectives

By attending this session, participants will be able to:

* Discuss the historical perspective of the Weatherization Assistance Program.
* Name characteristics of the client base served by the program.
* Recognize that building science guides the selection of measures installed with program dollars.
* Describe the principles of cost-effectiveness and the savings-to-investment ratio (SIR).
* Recognize modern weatherization measures.

Key Terminology

Air-handling unit (AHU)

American Recovery and Reinvestment Act (ARRA)

Base load

Community action program (CAP)

Energy burden

Energy Information Administration (EIA)

Health and safety (H&S)

Incidental repairs

Lead-safe weatherization (LSW)

Low Income Home Energy Assistance Program (LIHEAP)

Present value

Savings-to-investment ratio (SIR)

Training and technical assistance (T&TA)

U.S. Department of Energy (DOE)

U.S. Department of Housing and Urban Development (HUD)

Weatherization Assistance Program (WAP***)***

Supplemental Materials

Handouts & Resources

2009 Weatherization Works Video.

“Auditing: The Challenge of the Site Visit.” WxTV. Montana Weatherization Training Center. <www.wxtvonline.org>.

Brown, Marilyn., Berry, Linda. “Weatherization Assistance: The Single Family Study.” *Home Energy* Sept./Oct. 1993. <www.homeenergy.org>.

Haywood, Talmon. “More Than Just Patching Holes.” *Home Energy* Mar./Apr. 2002. <www.homeenergy.org>.

Introduction to Weatherization Quiz.

Introduction to Weatherization Quiz Answer Key.

Khawaja, M. Sami and Patricia Koss. “Building Better Weatherization Programs.” Home Energy Mar./Apr. 2007. <www.homeenergy.org>.

Kurnick, Chuck and Cynthia Woodley. “NREL Job Task Analysis: Quality Control Inspector.” May 2011. <www.nrel.gov>.

Lawrence National Laboratory Estimated Energy Usage by Source chart.

“Multifamily Wx Series: Intro to Multifamily Weatherization.” WxTV. Montana Weatherization Training Center. <www.wxtvonline.org>.

“This is the World of Weatherization.” WxTV. Montana Weatherization Training Center. <www.wxtvonline.org>.

Virginia Program Evaluation Summary.

“Weatherization in a Hot and Arid Climate.” WxTV. Montana Weatherization Training Center. <www.wxtvonline.org>.

“Weatherization in the Navajo Nation.” WxTV. Montana Weatherization Training Center. <www.wxtvonline.org>.

“Weatherization in the Pacific Islands.” WxTV. Montana Weatherization Training Center. <www.wxtvonline.org>.

**Online Platform Lessons**

Use these online interactive training modules as prerequisites before students attend the course or as in-class computer lab sessions. Users must first create an account at [www.nterlearning.org](http://www.nterlearning.org) to access the lesson.

i- 3.7 Building Variations (Animated Glossary)
<https://www.nterlearning.org/web/guest/course-details?cid=249>

Class Overview

* After introductions and general “housekeeping,” (e.g., explaining about breaks, where the bathrooms are, etc.) ask the class what they perceive the role of an Inspector to be. After some discussion, write the definition given in the scope section of the NREL JTA – Quality Control Inspector on the whiteboard:

A Quality Control Inspector is a residential energy efficiency professional who ensures the completion, appropriateness, and quality of energy upgrade work by conducting a methodical audit/inspection of the building, performing safety and diagnostic tests, and observing the work.

Explain that this course is specifically designed to meet the Job Task Analysis (JTA) considered necessary to perform the job as described. Review the JTA quickly and try to get an idea of which are most typical in the working lives of the students. This can help you prepare for the rest of the course by focusing on areas to which students may be completely new and reviewing familiar topics to make sure they are using up-to-date methods.

* Use the presentation and discussion to teach students about the history and future of the Weatherization Assistance Program (WAP).
* Calculate the simple payback of a refrigerator replacement using local prices. Explain the relationship to savings-to-investment ratio.
* Discuss the Virginia program evaluation considering the effectiveness of “old-school” versus modern weatherization measures.
* Break up class time by showing the “2009 Weatherization Works” video presented at the 2009 National Weatherization Training Conference. The video provides a perfect summary of the facts and benefits of the program for clients and the nation.
* Describe weatherization success stories from your own experience to emphasize the value of weatherization done right.
* As a wrap-up activity, have students brainstorm the many benefits of weatherization and keep a running list on the board.