

**1990 National Weatherization Evaluation:
Data Collection Summary By Organization Impacted**

Who surveyed	When surveyed	Information requested	Report/Study and Survey instrument
STATES			
48 states and DC	September 1990	List of all agencies in state, and contact information and number of homes weatherized for each agency.	ORNL/CON-326 No survey used.
48 states plus DC	October 1990 to March 1991	Information on state characteristics, state staff and training, funding and interaction with other programs, mechanisms for technology transfer, use of diagnostic and screening methods, measures allowed, innovations and initiatives, and organization. All states and DC (100%) responded.	ORNL/CON-324 Characterization of the WAP Network: Grantee Questionnaire (26 pages, 19 questions, hundreds of entries)
50 states and DC	1991 (est.)	Information on units weatherized between 1978 and 1989 from all major publicly funded federal, state, and local programs - funding, number and type of units, and program descriptions. 47 agencies (92%) responded.	ORNL/CON-325 The Scope of Full Scale Low Income Weatherization Programs: State Manager's Survey (16 pages, hundreds of entries)
48 States	1992 (est.)	Approach taken by state toward large multifamily buildings and guidelines and training support provided for multifamily buildings. Data received from 33 agencies (69%).	ORNL/CON-329 State Grantee Survey: High-Density Multifamily Units (8 pages, 11 questions)
9 northeast states	May 1991 and 1992 (est.)	Number of fuel oil heated homes weatherized in monitored program year in state	ORNL/CON-327 No survey used.
5 states	1993 (est.)	Background information - number of agencies involved in large multifamily work, use of leveraging, measures installed, and contact information.	ORNL/CON-434 No survey used.

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AGENCIES			
1,148 agencies	October 1990 to March 1991	<p>Information on agency characteristics, number and types of weatherizations, waiting lists, management of non-WAP energy programs, agency staff and training, funding and in-kind services, services offered by local agency, mechanisms for technology transfer, innovations and initiatives, and use of diagnostic methods, screening techniques, and measures.</p> <p>920 agencies (81%) responded.</p>	ORNL/CON-324 Characterization of the WAP Network: Subgrantee Questionnaire (28 pages, 22 questions, 500 entries)
400 agencies	December 1990	List of all clients weatherized by agency in PY 1989 with address, heating fuel, and dwelling type; names of utilities servicing area with contact information; and sample of utility bill waiver.	ORNL/CON-326 No survey used.
400 agencies	March to November 1991	<p>Dwelling data, occupant characteristics, measures installed, repairs made, audit/delivery procedures used, installation costs, funding sources, and utility account numbers on 18,748 weatherized houses.</p> <p>Data received from 368 agencies (92%) and on 14,971 houses (80%).</p>	ORNL/CON-326 Dwelling-Specific Form (10 pages, 30 questions)
400 agencies	March to November 1991	<p>Programmatic costs and installation-related overhead costs for each agency.</p> <p>Data received from 137 agencies (34%) because 102 agencies (25%) did not respond and 161 agencies (40%) did not provide credible or consistent data.</p>	ORNL/CON-326 Agency Information Form (4 pages, 3 questions)
400 agencies	March 1991	List of all clients on the agency's waiting list that heat with gas or electricity with address, utility company, and utility account number (for control group, eventual number being 11,795).	ORNL/CON-326 Control Group Form (form not available)
Subset of 400 agencies	July 1991	Utility bill waivers for individual clients (subset of the 24,957 houses)	ORNL/CON-326 No survey used.

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109 agencies (subset of 400 agencies)	1992 (est.)	<p>Building characteristics and equipment, occupant characteristics, measures installed, repairs made, audit/delivery procedures used, installation costs, and funding sources for 6000 dwelling units.</p> <p>Reduced to 4,500 (75%) because agency did not respond, to 3,300 (55%) because dwelling unit incorrectly identified as large multifamily, and 2,100 (35%) because units were public housing.</p> <p>76 agencies (70%) responded.</p>	ORNL/CON-329 Building Specific Data Survey Form: High-Density Multifamily Units for Program Year 1989 (14 pages, 31 questions)
765 houses through 30 agencies (subset of 400 agencies) Work performed by contractors	October 1992 to March 1993	<p>Detailed audit-level data on envelope and mechanical systems, space-heating and water-heating system safety inspections, blower-door air leakage measurements, heating system steady-state efficiency measurements, and CO measurements.</p> <p>Agencies had to develop a new set of 288 control houses.</p>	ORNL/CON-331 Single-Family Study House Characteristics Survey (9 pages, hundreds of entries)
765 houses through 30 agencies (subset of 400 agencies) Work performed by contractors	October 1992 to March 1993	<p>Occupant interviews covering length of residence, house age, demographics, heating fuels, fuel switching, fuel assistance, fuel affordability, thermostat management, heated areas, and perceptions on comfort, health, and safety</p> <p>Agencies had to develop a new set of 288 control houses.</p>	ORNL/CON-331 Single-Family Study Occupant Questionnaire: Weatherized Home and Control Home (two separate surveys, 13 pages each, 52 questions each)
10 agencies (subset of 30 agencies)	1993 (est.)	One-to-two day on-site interviews with agency personnel and visits to weatherized houses.	ORNL/CON-328 No survey used.

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<p>376 homes through 41 agencies</p> <p>Worked performed by contractors</p>	<p>September 1990 to April 1992</p>	<p>Submetered space-heating energy use and indoor and outdoor temperatures.</p> <p>September 1990 to April 1991 for 25 agencies and 200 homes. September 1991 to April 1992 for 16 agencies and 176 homes.</p>	<p>ORNL/CON-327 Metering installed at beginning of each period and removed at end of the period</p>
<p>376 homes through 41 agencies</p> <p>Worked performed by contractors</p>	<p>September 1990 to April 1992</p>	<p>Floor area, house volume, number of rooms, and space-heating system nozzle size (September 1990 and 1991).</p> <p>Detailed audit-level data on envelope and mechanical systems (April 1991 1992).</p> <p>Blower-door air leakage measurements (September 1990 and 1991 and April 1991 and 1992).</p> <p>Heating system steady-state efficiency measurements (September 1990 and 1991 and April 1991 and 1992).</p> <p>Space-heating and water-heating system safety inspections and CO measurements (April 1991 and 1992).</p> <p>Occupant interviews covering ownership status, length of residence, house age, demographics, heating fuels, fuel assistance, fuel affordability, thermostat management, conditioned areas, and perceptions on comfort, health, safety, thermostat operation, and affordability (April 1991 and 1992).</p>	<p>ORNL/CON-327 Fuel-Oil Study Pre-Weatherization Data Collection Form (1 page, 12 questions)</p> <p>Fuel-Oil Study House Characteristics Survey (9 pages, hundreds of entries)</p> <p>Blower-Door Test Data Sheet: Infiltec Blower Door (1 page, 37 entries)</p> <p>Fuel-Oil Study Steady-State Efficiency Data Sheet (1 page, 7 entries)</p> <p>Fuel-Oil Study System Safety Inspection Form (4 pages, 66 entries)</p> <p>Fuel-Oil Study Occupant Questionnaire: Weatherized Home and Control Home (18 pages each, 56 questions each)</p>

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41 agencies	April 1991 and 1992	Household income, weatherization dates, measures installed, repairs made, audit/delivery procedures used, installation costs, funding sources, and utility account numbers for 222 weatherized house; and programmatic costs and installation-related overhead costs for each agency	ORNL/CON-327 Fuel-Oil Study Weatherization Information Survey (15 pages, 33 questions) Fuel-Oil Study Control House Information Survey (1 page, 4 entries)
41 agencies	May 1991 and 1992 (est.)	Number of fuel oil heated homes weatherized in monitored program year in the agency	ORNL/CON-327 No survey used.
5 agencies	January to November 1994	Data on recent weatherization jobs in large multifamily buildings - building info, weatherization work, and billing data. 3-5 day site interviews and visits to weatherized buildings.	ORNL/CON-434 No survey used.

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UTILITIES			
443 utilities	1991 (est.)	<p>Information on the utility's low-income weatherization activities between 1978 and 1989 - funding, number and type of units, coordination with WAP, and measures installed.</p> <p>124 utilities (28%) responded.</p>	<p>ORNL/CON-325 The Scope of Utility Low Income Weatherization Programs (15 pages, hundreds of entries)</p>
926 utilities	<p>July to December 1991</p> <p>Heads-up letter sent to 1,500 utilities in April 1991.</p>	<p>Billing data on 24,957 houses along with information on payment records, fuel assistance payments, fuel cutoffs, and participation in forgiveness programs.</p> <p>Reduced to 17,991 (72%) because utility did not respond, to 14,198 (57%) because no data received on house, to 11,882 (48%) or 8,572 (34%) because data incomplete, and to 7,402 (30%) after analysis screens.</p> <p>689 utilities responded (74%), with final useable data from 230 utilities (25%).</p>	<p>ORNL/CON-326 Data provided by utilities in various electronic formats.</p>
Utilities and building owners	1992 (est.)	Billing data (only 5% return rate)	<p>ORNL/CON-329 No survey used.</p>
600 utilities	1993 (est.)	<p>Information on the utility's low-income weatherization programs - if mandated by PUC, if must pass cost-effectiveness test, goals, budget, number of participants by dwelling type, household selection criteria, average investment per house, method of selecting investment level/measures per house, use of non-profit agencies to implement, program expenditures made through WAP program, description of direct cooperation with WAP program, and percent of time long list of measures installed in houses.</p> <p>180 utilities (30%) responded.</p>	<p>ORNL/CON-379 U.S. Department of Energy National Weatherization Evaluation (6 pages, 14 questions, about 100 entries)</p>