

## **The Weatherization Assistance Program under the 2009 Recovery Act: The Challenge of Assuring High-Quality Performance**

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The federal Weatherization Assistance Program (WAP) reduces the heating and cooling bills of low-income households by funding weatherization workers to add insulation to attics and walls, seal air leaks, upgrade heating and air conditioning equipment, and implement other energy conservation measures. Special targets for assistance are the low-income elderly, disabled, and families with children.

Like many federal programs, WAP provides assistance indirectly to its target population. Under WAP, the federal Department of Energy (DOE) makes grants to state governments, which then pass funding to roughly 1,000 local subgrantees who oversee the weatherization work. The vast majority of the local subgrantees are nonprofit and public community action agencies that were created in the 1960s War on Poverty and administer a variety of grants targeted at low-income individuals.<sup>1</sup> Besides community action agencies, other WAP subgrantees are other kinds of nonprofit entities and other local units of government.

The community action agencies and other local subgrantees either do the weatherization work themselves or contract the work out to local, for-profit building contractors. Program experts estimate that roughly half the weatherization work is done by local agencies with in-house crews and half with outside contractors, although more was contracted out under the 2009 Recovery Act (the American Recovery and Reinvestment Act of 2009 or ARRA).

The core of funding for WAP comes through an annual appropriation for DOE's weatherization program. In federal fiscal years (FY) 1999-2008, the decade before the passage of the Recovery Act, WAP received an average of \$200 million per year in its DOE appropriation, as shown in Table 1.

In addition to the WAP appropriation, significant funding for state-run weatherization activities also comes through the Low Income Home Energy Assistance Program (LIHEAP). LIHEAP, which is administered by the federal Department of Health and Human Services, is a grant to states to help low-income households pay their home energy bills. States are allowed to use up to 15 percent of their LIHEAP grants to fund WAP-related activities. With total LIHEAP funding at approximately \$2 billion per year in the decade prior to ARRA, LIHEAP support for weatherization activities was typically equal to or even greater than the WAP appropriation, as shown in Table 2.

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<sup>1</sup> One program expert estimated that about 75 percent of the community action agencies involved in WAP are private, nonprofit organizations and about 25 percent are public agencies. See also, National Association for State Community Services Programs (NASCSPP), *Community Services Block Grant: Annual Report 2010*, Washington, DC: NASCSPP, 2011, p. 6.

Besides WAP and LIHEAP, important additional funding for state-administered weatherization activities comes from utility companies, the Regional Greenhouse Gas Initiative, state general funds, and other sources. Total funding for weatherization activities from all sources averaged \$615 million in the ten years, program years (PY) 1999-2008, before the Recovery Act was passed.<sup>2</sup>

The 2009 Recovery Act appropriated \$5 billion to WAP to be spent over three years, April 1, 2009 through March 30, 2012.<sup>3</sup> In addition to this huge influx of ARRA funds, WAP continued to receive regular appropriations during the period of spend out of the Recovery Act funds. Thus, including both ARRA and non-ARRA funding, the DOE average annual appropriation for weatherization was \$1.9 billion during FY 2009-2011, or almost ten times previous levels, as shown in Table 1. Total annual funding for weatherization from all sources was \$2.7 billion, or about four and one-half times previous levels, during PY 2009-2011 as shown in Table 2.

Like the other case studies in this project, the main goals of this paper are to consider the impact that ARRA funds had on program outcomes and on the network of organizations and individuals – federal, state, and local – involved in implementing the program, including especially federal managers. Of special interest in this particular case study is the role of private, nonprofit organizations in program activities. Federal and state governments rely heavily on nonprofits to deliver services in a broad range of program areas, including health, human services, education, the arts, housing, community development, and others. Rather than placing legions of federal and state employees in neighborhoods to provide services, government often funds nonprofit organizations to deliver these services. As we will discuss, the experience of WAP under ARRA demonstrates some of the benefits – and challenges – of involving nonprofits in government-funded programs.

To understand how WAP unfolded under the Recovery Act, the author reviewed relevant documents, reports, and articles, and interviewed twenty individuals involved in WAP at all levels. To promote candor, interviewees were promised confidentiality and so will not

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<sup>2</sup> The Regional Greenhouse Gas Initiative is a program of nine Northeast states to reduce greenhouse gas emissions in the U.S. As part of the initiative, CO<sub>2</sub> emission allowances are auctioned with some of the proceeds devoted to weatherization activities. See, RGGI Inc., “Investment of Proceeds from RGGI CO<sub>2</sub> Allowances,” February 2011, available at: [http://www.rggi.org/docs/Investment\\_of\\_RGGI\\_Allowance\\_Proceeds.pdf](http://www.rggi.org/docs/Investment_of_RGGI_Allowance_Proceeds.pdf) [June 13, 2012]. Information on funding for weatherization activities is available in: National Association for State Community Services Programs, “Weatherization Assistance Program: Funding Survey PY 2011,” available at: [http://waptac.org/data/files/website\\_docs/reports/funding\\_survey/nascsp\\_2011\\_wap\\_summary\\_final.pdf](http://waptac.org/data/files/website_docs/reports/funding_survey/nascsp_2011_wap_summary_final.pdf) [June 13, 2012]. While federal budget figures are generally presented on a federal fiscal year (FY) basis, NASCSP collects WAP spending data on a program year (PY) basis. The federal fiscal year runs from October 1 through September 30, and takes the name of the year in which it ends. Thus, FY 2012 runs from October 1, 2011 – September 30, 2012. The program year for most state WAP programs runs from April 1 through March 31, and takes the name of the year in which it begins. Thus, PY 2012 runs from April 1, 2012 – March 31, 2013.

<sup>3</sup> DOE has now permitted states, on a case by case basis, to extend their ARRA spending for up to eighteen months beyond March 30, 2012.

be cited by name in this report. Research on state and local experiences with WAP under ARRA focused on the WAP programs in New Mexico, New York, and Virginia. The assumption was that focusing on these states – which differ by size, region, and public service culture – would yield information about the range of experiences under ARRA.

To preview the discussion that follows, what the reports and interviews indicate is that the huge infusion of funding under ARRA resulted in significant achievements, including the weatherization of roughly 600,000 homes, which was the target number when ARRA was passed. WAP has also consistently been among the top ten job-creating programs under ARRA, and in the first quarter of 2012 ranked second among all programs with more than 10,000 new jobs created.<sup>4</sup>

However, while WAP had important accomplishments under ARRA, it also experienced significant setbacks. In fact, WAP seemed among the most highly criticized of all Recovery Act initiatives. In particular, the program was faulted for being slow to get started and for the poor quality of some of the weatherization work that was done. As will be discussed further below, the slowness in program take-off resulted from a variety of factors. A major cause was the new requirement that local weatherization workers funded through ARRA be subject to the Davis-Bacon Act, which mandated that workers be paid at county-specific, prevailing wage rates. Previously, workers funded through WAP had not been subject to Davis-Bacon rules, and prevailing rates for this type of work had not been calculated. As it turned out, it took the U.S. Department of Labor from the February 2009 passage of the Recovery Act until September 2009 to determine the required wage information, and little ARRA-funded weatherization work was done until the guidance was issued. To be sure, as noted above, although production started off slowly, it eventually picked up so that by Spring 2012 WAP had reached its target of weatherizing 600,000 homes under ARRA.

The problem of the questionable quality of some of the weatherization work that was done under ARRA is perhaps more troubling than the slow take-off because the concern about quality has not yet been satisfactorily resolved. A variety of explanations have been offered for the quality problems, including that the quality assurance processes which are currently in place do not seem to be working adequately. Now, local agencies are required to inspect all finished projects before reporting them as complete to the state. States also independently inspect at least five percent of completed projects within the state, and the federal government is now doing some independent inspections as well.

However, under the current system, not enough weatherization projects are being completed satisfactorily the first time the jobs are done, and not enough of the problems that do occur are being caught in the initial local agency audit when they could be more easily fixed. A critical challenge for federal managers in a system of shared governance – where they rely heavily on state and local partners to help implement programs – is

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<sup>4</sup> Recovery.gov, “Jobs Summary – National,” available at: <http://www.recovery.gov/Pages/TextView.aspx?data=jobSummaryProgram&topnumber=200&qtr=2012Q1> [June 14, 2012].

how to insure that the services delivered on the ground, far from Washington, DC, are of high quality.

### **Evolution of WAP**

The seeds of WAP were planted in the oil crisis of 1973 when oil prices rose sharply with the oil embargo that was imposed by Arab oil producers. The sudden rise in oil prices posed a particular challenge for low-income households who were hard pressed to pay their home energy bills. According to a long-time program observer, in the Fall of 1973 community action agency staff in Maine teamed with Richard Saul and other staff at the federal Office of Economic Opportunity (OEO) in Washington, D.C. to make funds available to help meet the energy needs of the poor. In 1975, the Community Services Administration (CSA), which was the successor to OEO, received its first appropriation of \$16.5 million for energy programming. CSA's on-the-ground implementers were the nation's 900 community action agencies, most of which had been established in the mid-1960s federal War on Poverty effort to coordinate programs for the poor in communities around the country.<sup>5</sup> Thus, the important role of local community action agencies in the federal weatherization program was established from the start.

The Weatherization Assistance Program was formally created by Title IV of the Energy Conservation and Production Act of 1976, and by 1979 the new federal Department of Energy had taken over the administration of the weatherization program from CSA.<sup>6</sup> In its earliest years, WAP relied on volunteers and low-cost labor to cover windows with plastic sheets and caulk and weatherstrip windows and doors as emergency, temporary measures.<sup>7</sup> As several interviewees commented, with its mission of serving the poor WAP was an awkward fit in DOE, which otherwise had an engineering culture that emphasized research and weapons building. Perhaps not surprisingly, with its move to the more technically-oriented culture of the Department of Energy, WAP also became more sophisticated and put a greater emphasis on implementing cost-effective and permanent measures. In the 1990s, the development and use of advanced home energy audits enabled weatherization workers to carefully evaluate homes so that the most cost effective weatherization measures could be implemented.<sup>8</sup> In 1994, WAP also began to promote efficiency in cooling as well as heating. By the late 2000s, just before the Recovery Act, more than 6 million homes had been weatherized through WAP.<sup>9</sup>

### **Overview of WAP under ARRA**

Until the passage of the Recovery Act, WAP was "one of America's best kept secrets," according to one long-time program insider. The program was relatively small and

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<sup>5</sup> Richard Saul, "The Beginnings of Weatherization," pp. 5-6, no date, Richard Saul Papers, Edmund Muskie Archives, Bates College.

<sup>6</sup> Ibid, p. 10.

<sup>7</sup> DOE, "History of the Weatherization Program," available at: [http://www1.eere.energy.gov/wip/wap\\_history.html](http://www1.eere.energy.gov/wip/wap_history.html) [June 21, 2012].

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

stable. A “mom and pop” operation that generally “flew under the radar” is how another interviewee described WAP.

This all changed with the huge allocation of funds that WAP received under ARRA. Those in the Obama administration transition team who put the recovery bill together saw a variety of reasons to give WAP a significant boost in funding: it was help for low-income households; it was a down-payment on a Green Jobs initiative that would create new work in the energy field; and it saved energy. Moreover, the program looked like it could spend money fast and thereby create new jobs and stimulate the economy quickly. “Weatherization was the low hanging fruit of Obama’s green jobs plan, or as Energy secretary Steven Chu liked to say, it was ‘fruit on the ground.’ It didn’t require a college degree or any advanced technology training. It didn’t require a new building or breakthrough technology. It simply required a caulking gun.”<sup>10</sup> Thus, the conventional wisdom was that WAP was as “shovel ready” as almost any federal program, and especially any program within DOE.<sup>11</sup>

Adding money to WAP was so appealing, in fact, that the Obama team allocated more funding to WAP in the Recovery bill than even many program supporters wanted, according to several interviewees. The fear of some program insiders, who preferred perhaps an additional \$2 billion rather than \$5 billion from ARRA, was that too large of a funding increase would “put a bulls eye on the back of the program,” which it did.

Overall, ARRA appropriated \$5 billion to WAP which was allocated as follows:

- \$4.75 billion to state grantees for program operations and materials, training and technical assistance; and administration;
- \$0.14 billion for DOE training and technical assistance;
- \$0.09 billion for new Sustainable Energy Resources for Consumers (SERC) grants, which funded local agencies to install solar and other technology that are not normally supported under WAP; and
- \$0.03 billion for DOE management and oversight.<sup>12</sup>

WAP grant monies are distributed to states according to a complicated calculation that includes a “base allocation” and a “formula allocation” which takes into account states’ low-income population, climatic conditions, and residential energy expenditures by low-income households. The base allocation, which favors cold-weather states, counts for more when total funding for states is in the range of \$170 million or less. The formula allocation, which favors warm-weather states, takes effect when total funding is above \$170 million.<sup>13</sup> Because of the way the allocation formula works, warm weather states,

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<sup>10</sup> Michael Grabbell, *Money Well Spent? The Truth behind the Trillion-Dollar Stimulus, The Biggest Economic Recovery Plan in History*. New York: Public Affairs, 2012, p. 122.

<sup>11</sup> Fred Sissine, “DOE Weatherization Program: A Review of Funding, Performance, and Cost-Effectiveness Studies,” U.S. Congressional Research Service, January 11, 2012, p. 9.

<sup>12</sup> U.S. Government Accountability Office, “Recovery Act: Progress and Challenges in Spending Weatherization Funds,” December 2011, p. 9.

<sup>13</sup> DOE, “Weatherization Assistance Program Funding: Overview of the Allocation Formula for the Weatherization Program,” pp. II-12 – II-13; available at: [http://www1.eere.energy.gov/wip/wap\\_allocation.html](http://www1.eere.energy.gov/wip/wap_allocation.html) .

which had relatively smaller WAP programs before ARRA, received proportionally greater increases in funding under ARRA than cold-weather states, as shown in Table 3. For example, when ARRA funding is spread out over three years, annual ARRA funding for Texas was almost twenty times greater than 2008 levels, while funding for North Dakota was only two times greater. New York State received the largest allocation under ARRA, almost \$400 million to be spent over three years.

In addition to providing WAP with an enormous boost in funding, the Recovery Act also changed several important features of the program. As mentioned above, ARRA applied the Davis-Bacon Act to weatherization workers for the first time, which meant that these workers had to receive prevailing, county-specific wages and had to be paid weekly, and that local agencies had to submit certified payrolls weekly. There were also new requirements for historic preservation clearance for weatherization projects. Other significant program changes under ARRA included:

- Raising the average amount of WAP funds that could be spent on each weatherized home from \$2,500 to \$6,500;
- Increasing the threshold for income eligibility from 150% to 200% of the poverty level;
- Increasing the percentage of program funds that could be spent for national, state, and local training and technical assistance from 10% to 20%; and
- Changing the program from “no year” funding that did not have to be spent in a set time frame to time limited ARRA funding that had to be spent within three years (although DOE eventually allowed extensions).

In addition to the ARRA funding, WAP also received regular appropriations during the years of spend out of ARRA funds. Thus, WAP was appropriated \$441.0 million in FY 2009, \$180.0 million in FY 2010, and \$174.3 million in FY 2011, as shown in Table 1. Appropriations for FY 2012 are \$68.0 million, and President Obama has requested an appropriation of \$139.0 million for FY 2013.

New regulations that were passed under ARRA, including the Davis-Bacon requirement, generally do not apply to activities funded through regular appropriations. Thus, states and local agencies have generally run two distinct programs, ARRA and non-ARRA, in recent years.

In 2010, another new, related program, the Weatherization Innovation Pilot Program (WIPP), was funded with an appropriation of \$30 million. WIPP grantees, which include organizations like Habitat for Humanity and YouthBuild, are using new materials, technologies, and financing mechanisms, and are not among the traditional WAP grantees.

### **Program Impacts**

The massive new Recovery Act funding for WAP and the programmatic changes that were enacted in ARRA had important effects on the WAP program and the network of organizations that implement WAP.

As noted earlier, the \$5 billion of new funding resulted in the weatherization of approximately 600,000 units, which was the target figure for the program. Thus, production more than doubled, from about 90,000 units weatherized annually before ARRA to 200,000 units annually under ARRA, not counting units weatherized under regular appropriations during ARRA<sup>14</sup>

The weatherization work that was done helped reduce long-term home energy bills for low-income households. According to projections by DOE's Oak Ridge National Laboratory (ORNL), every \$1 that ARRA invested in WAP would yield savings of \$1.80 in energy costs.<sup>15</sup>

One of the major purposes of the Recovery Act was job creation or job protection to maximize employment during the Great Recession. In fact, WAP produced significant numbers of jobs, especially after the program took off after its slow start. WAP has consistently been among the top 10 job producers among federal programs under ARRA, and, in fact, was ranked the second highest job producer in the first quarter of 2012 with more than 10,000 new jobs produced.<sup>16</sup>

### **Network Impacts**

Beyond these programmatic impacts, ARRA also had important impacts on the set of federal, state, and local organizations and individuals involved in implementing WAP. By the late 2000s, a relatively stable network of federal, state, and local organizations had evolved that was engaged in the implementation of WAP. Federal staff in the Department of Energy's Office of Weatherization and Intergovernmental Programs writes program rules and regulations, reviews and approves state program plans, makes grant awards, provides training and technical assistance to state and local agencies, monitors state performance, and periodically undertakes more comprehensive program evaluations through the Oak Ridge National Laboratory, another agency within DOE.

For their part, state weatherization offices – which are in state housing, community services, human services, or other departments - develop their own program plans, receive federal funding and in turn award funding to community action and other local agencies, monitor the local providers, and provide training and technical assistance to local agencies and their weatherization workers.

Community action and other local agencies on the ground receive funding from the state, hire weatherization workers in-house or through subcontracting, buy weatherization materials, approve applications from eligible households, conduct pre-audits on homes to determine what weatherization measures to implement, complete the weatherization

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<sup>14</sup> Sissine, pp. 44-45.

<sup>15</sup> GAO, "Recovery Act: Progress and Challenges in Spending Weatherization Funds," December 2011, pp. 31-34.

<sup>16</sup> Recovery.gov, Jobs Summary – National, Top Programs as reported by recipients, <http://www.recovery.gov/Transparency/RecipientReportedData/Pages/JobSummary.aspx> [June 22, 2012]

work, and conduct inspections after the work is finished. Businesses that provide goods and services to support weatherization are also loose members of the WAP network.

In addition to DOE staff, state administrators, and local agency workers, several Washington-based organizations also play important roles in the WAP network. The National Association of State Community Service Programs (NASCSPP), a membership association of state administrators involved with the community services and weatherization programs, educates state officials about WAP and convenes federal, state, and local WAP officials to exchange information. NASCSPP hosts WAPTAC, which is an on-line reference library of program rules, regulations, policies, and procedures.<sup>17</sup> The Community Action Partnership (CAP) is a membership association of 1,100 community action agencies across the U.S. The National Community Action Foundation (NCAF) is a major Washington lobbyist for programs like WAP that are operated by community action agencies for the benefit of low-income families and individuals. Economic Opportunity Studies is a Washington-based research and training organization that supports the work of community action agencies and the people they serve.

### **Network-wide Impacts**

ARRA had some across-the-board impacts on the WAP network. In the first place, with pressure to produce hundreds of thousands of new weatherized units in a relatively short amount of time, ARRA put significant stress on all the organizations and individuals in the WAP network. In fact, the DOE Inspector General concluded that, “The Federal, state, and local government infrastructures were, simply put, overwhelmed” and that, “pushing this much money through the weatherization program [was] akin to hooking up a garden hose to a fire hydrant.”<sup>18</sup> One interviewee suggested that the added stress resulted in an increased number of government staff retiring on disability during the period of ARRA.

Some of the pressure was eventually relieved by the hiring of new staff at all levels. But the new hiring itself had consequences. With the acquisition of new staff and the promotion of old staff to new positions, previous working relationships were disrupted which slowed down program operations. Moreover, many new staff did not know WAP very well, although ARRA-supported training helped them learn what they needed to know to do their work. ARRA also required that individuals at different levels interact more frequently with one another in monitoring and other activities, and this helped to tighten the network and overcome some of the problems resulting from the newness of many network members.

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<sup>17</sup> <http://www.waptac.org/>

<sup>18</sup> DOE Inspector General Gregory H. Friedman, Testimony before the U.S. House of Representatives, Committee on Oversight and Government Reform, Subcommittee on Regulatory Affairs, Stimulus Oversight, and Government Spending, November 2, 2011, p. 6; U.S. House of Representatives, Committee on Oversight and Government Reform, “The Department of Energy’s Weatherization Program: Taxpayer Money Spent, Taxpayer Money Lost,” staff report, March 20, 2012, p. 3.

Increased requirements for monitoring - including greater federal oversight of state grantees and greater state oversight of local agencies – were an important feature of ARRA. The expanded oversight activity elicited many comments from case study interviewees and is the focus of the discussion of network impacts that follows.

### **Federal Staff**

At the federal level, federal project and contract officers in the WAP office in DOE significantly increased their monitoring of state activities through desk review of reports, phone calls, and in-person visits. Each federal program officer had responsibility for overseeing one to three states. The WAP office also hired a contractor to conduct independent inspections of weatherized homes, an activity which had previously been left to state and local agencies. While some state officials appreciated the need for increased federal oversight, others grumbled that federal staff were “intrusive” and “micromanaging,” and that it was very time-consuming for states to meet the needs of federal monitors. “If they would only leave us alone, we could actually get some work done,” was one overburdened state official’s suggestion.

In addition to DOE program staff undertaking increased oversight under ARRA, the DOE Inspector General and the Government Accountability Office (GAO) were also much more active monitors under ARRA, with the IG especially issuing several harsh critiques of the WAP program.<sup>19</sup>

Even with the increase in federal oversight under ARRA, there was still a widely-shared feeling that this oversight was inadequate and needed to be improved. According to at least some observers, federal staff paid more attention to working with states to get production numbers up than to assuring that the work that was done was of high quality. In any case, an important ongoing challenge for federal staff is to find some way of improving the quality of weatherizing being done.

### **State Agencies**

States also had to ramp up their staff to manage the much expanded WAP program. New staff had to be hired, and new procedures had to be put in place. Important among state achievements was the establishment of many more state-based training centers (although a couple of interviewees wondered whether too many training centers had been created with ARRA funding).

States also increased their monitoring of local agencies. States expanded their program, financial, and production reviews through more document analysis, phone calls, and visits with local agency staff. States were required to independently inspect five percent of weatherized units, although many audited more.

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<sup>19</sup> DOE’s ORNL also began a long-delayed evaluation of WAP during ARRA.

Much as state officials complained about federal oversight, local staff resented some of the state monitoring. In fact, some state staff who had experience with other types of government programs besides WAP expressed that monitoring of local agencies in WAP was much more intrusive and paternalistic than monitoring of locals in many other programs.

Overall, state officials reported experiencing many more challenges earlier in ARRA than later. According to a GAO survey, a majority of state recipients indicated that in the first year of ARRA they were strongly or somewhat challenged in 26 of 29 program implementation areas that the GAO survey asked about. By the third year of ARRA, a majority of state recipients reported being strongly or somewhat challenged in only 13 of 29 areas. “Implementing Davis-Bacon requirements” was among the challenges that declined the most for state officials during ARRA.<sup>20</sup>

However, some challenges persisted through ARRA. Even in the third year of ARRA, 75 percent of state recipients reported that they were still strongly or somewhat challenged by “having additional federal reporting requirements.” By the third year, 48 percent of state respondents indicated that “adjusting to changes in existing reporting requirements for monitoring” remained a challenge. And finally, by the end of ARRA, 63 percent of recipients reported that “balancing training and technical assistance requirements with production targets” was a challenge.<sup>21</sup>

### **Local Agencies**

About 1,000 nonprofit and public agencies are involved in implementing WAP at the local level. Most of the local agencies are community action agencies, including both nonprofit and public entities, while others are local units of government or other kinds of nonprofits. They vary in size and scope of activities, with some local agencies overseeing a wide range of programs and some focused exclusively on WAP.

States seemed to rely largely on existing local agencies to implement ARRA, and these agencies – like their federal and state network colleagues – faced significant pressure to ramp up their operations quickly to meet production targets. To do the actual weatherization work, local agencies either hired new staff in-house or subcontracted with outside contractors. While there are no hard data, interviewees suggested that local agencies turned more to outside hires during ARRA because they knew the new positions would be temporary and by subcontracting they could avoid having to layoff in-house staff when ARRA monies ran out.

With the high number of unemployed workers around the country, identifying new hires was not difficult for many local agencies, although, as one interviewee noted, it was easier to find a carpenter than a skilled technician who would be able to do the more sophisticated pre- and post-weatherization inspections. In any case, once hired new

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<sup>20</sup> GAO, “Recovery Act: Progress and Challenges in Spending Weatherization Funds,” December 2011, pp. 19-22.

<sup>21</sup> Ibid., p. 22-24.

weatherization workers went through expanded and improved training program to insure they had the necessary skills. However, as one local agency director emphasized, “Workers could not be in two places at once” and so striking a balance between time for training and time for production was a challenge for local agencies.

Implementing Davis-Bacon rules for paying workers was another challenge for many local agencies, especially small ones. Since different rules applied to ARRA and non-ARRA funded weatherization activities, local agencies had to maintain separate processes for two programs, which was an added burden on the agencies.

An important responsibility of local agencies was to inspect all the units they weatherized. Agencies used a variety of in-house and outside staff to do this inspecting. Unfortunately, as we will discuss further below, too many errors that were made by local weatherization workers eluded local agency inspectors and were not caught until state or federal inspectors came in.

### **Challenges for WAP under ARRA**

The written record about WAP under ARRA as well as the interviews that were conducted point to two major problems that afflicted the program: the slowness with which production activity began, and concerns about the quality of the weatherization work that was done.

#### **Slow Take-Off**

The DOE Inspector General has noted that when the 2009 Recovery Act was being formulated, the conventional wisdom was that WAP was “about as close to meeting the definition of ‘shovel ready’ as virtually any program in the Department’s portfolio.” WAP boasted an existing programmatic infrastructure; relied on well known and relatively uncomplicated technologies to do its work; had established, relatively easy-to-use performance metrics; and had clear benefits for low-income individuals and energy usage. There seemed to be a high probability that the \$5 billion allocated to WAP would have a quick, positive – if somewhat modest – impact on job creation and the economy.<sup>22</sup>

However, as the DOE IG went on to report, the hoped-for results proved much more difficult to achieve than originally envisioned:

The results of our review confirmed that as straight forward as the program may have seemed, and despite the best efforts of the Department, any program with so many moving parts was extraordinarily difficult to synchronize. In this case, program execution depended on the ability of the Federal government (multiple agencies, in fact), state government, grant sub-recipients and weatherization contractors, working within the existing Federal and state regulatory guidelines, to respond to a rapid and overwhelming

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<sup>22</sup> DOE IG, “Progress in Implementing the Department of Energy’s Weatherization Assistance Program Under the American Recovery and Reinvestment Act,” February 2010, pp. 4-5.

increase in funding. Further, anticipated stimulus impact was affected by certain events and conditions clearly outside of Departmental control including state budget difficulties; availability of trained and experienced program staff; and, meaningful changes in regulatory requirements.<sup>23</sup>

In Congressional testimony regarding DOE's experience with the Recovery Act generally, the IG concluded, "In reality, few actual 'shovel ready' projects existed. The department programs which benefitted from the huge influx of Recovery Act funds, as it turned out, required extensive advance planning, organizational enhancements, and additional staffing and training."<sup>24</sup>

Two major causes of the slow program take off were the imposition of the Davis-Bacon rules for the first time and the budget difficulties of many states. As described above, Davis-Bacon required, for the first time, the payment of prevailing, county-specific wages to weatherization workers. The hitch was that the necessary wage guidelines did not exist at the time the Recovery Act was passed, and the program had to wait from the February 2009 passage of ARRA until September 2009 for the U.S. Department of Labor (DOL) to issue the necessary guidance. On the positive side, even though the WAP wage-determination process took six to seven months, this was actually about half the time it normally took. However, perhaps because the process was rushed, DOL had to issue corrected guidance in December 2009.

Without the Davis-Bacon guidance in place, states and local agencies were reluctant to begin the weatherization work. As the wage guidance was being developed in the summer of 2009, the Departments of Energy and Labor announced a work around in July 2009 that permitted local agencies to continue paying weatherization workers at previous wage rates until the new guidelines were available and then to provide back pay in line with the new rates. However, very few states or local agencies took up this offer, with most feeling that there would be too much paper work involved. Thus, because of the new Davis-Bacon requirements it was not until fall 2009, six months after the passage of the Recovery Act that was supposed to provide a quick jolt of job creation, that weatherization work began in earnest.

An additional reason for the slowness in implementation was the lack of staff capacity especially at the state level. Because of their recession-related loss of revenues, many states, including, for example, California, Illinois, New York, and Pennsylvania, were trying to keep spending down through furloughs and/or hiring freezes. Finding a way around these constraints to hire new state staff to manage WAP took some time, and this slowed the program down in a good number of states. Nationally, one year after the passage of ARRA only five percent of the ARRA target of 600,000 units had been weatherized, as shown in Table 4.<sup>25</sup>

## Quality Concerns

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<sup>23</sup> Ibid, p. 5.

<sup>24</sup> DOE IG Gregory Friedman testimony, November 2, 2011, p. 2.

<sup>25</sup> DOE IG, "Progress," February 2010, Appendix II

While program production did eventually pick up, it is not as clear that the other major concern about WAP under ARRA – the poor quality of some of the work that was done – has been turned around. A strongly-worded report from the House Committee on Oversight and Government Reform recited many of the most worrisome claims about low quality work. For example, the House report observed that “with some states exhibiting a failure rate [of] 80% (12 out of every 15 homes fail inspection) due to substandard workmanship, this program is far from being a shining example of what the government can do for its citizens.”<sup>26</sup>

While there were certainly quality issues with WAP, it is, in fact, difficult to say exactly how serious they were. It is not entirely clear from the reports of federal and state auditors whether problems were relatively rare but major, rare and minor, commonplace and major, or commonplace and minor. For example, while the House Oversight Committee report and the DOE IG tended to emphasize the existence of problems, NASCSP claimed that only 3,500 of 400,000 – or less than one percent of projects – had significant problems.

The weaknesses that were found by federal and state auditors were picked up and amplified by the media.<sup>27</sup> Even the generally progressive *Daily Show with Jon Stewart* on television poked fun at WAP and its problems, as shown in Figure 1.<sup>28</sup> Some of the reports about specific problems with homes that had been weatherized received significant attention from the media and other program stakeholders. For example, the DOE IG’s reports on poor quality weatherization work in Illinois, which resulted in gas and carbon monoxide leaks among other problems, were cited by several interviewees.<sup>29</sup>

Program experts and stakeholders cited multiple reasons for the less than ideal quality of the weatherization work that was done. The work is somewhat technical and complicated and for it to be done properly requires appropriate training and/or experience. Unfortunately, too many weatherization workers seemed not well qualified. There was a

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<sup>26</sup> House Committee on Oversight and Government reform, staff report, March 20, 2012, p. 3.

<sup>27</sup> For a sample of newspaper articles about WAP under ARRA, see: James Drew, “State Slow to Spend Stimulus Funds to Weatherize Homes,” *Dallas News*, December 20, 2009; Tom Infield, “Stimulus Funds Finally Flowing to Weatherization,” *Philadelphia Inquirer*, November 22, 2009; Kate Linthicum, “State’s Slow Start Puts Federal Stimulus Funds at Risk, Audit Finds,” *Los Angeles Times*, July 12, 2011; Mark Lisher, “Shoddy Workmanship Found in \$22 Million Federal Stimulus Contract to Improve the Homes of the Poor,” *Texas Watchdog*, May 31, 2010; Carolyn Lochhead, “Energy Stimulus Program Plagued by Problems,” *San Francisco Chronicle, SFGate*, November 3, 2011; Louis Radnofsky, “Audit Faults Stimulus-Funded Weatherization Program in West Virginia,” *Wall Street Journal*, June 16, 2011; Saqib Rahim, “Beseiged DOE Weatherization Program Faces Republican Attack,” *New York Times*, September 9, 2011; Christine Vestal, “Weatherization Program Ramps Up after Slow Start,” *Stateline*, June 8, 2010; Matthew L. Wald and Leslie Kaufman, “Hiring Freezes Hamper Weatherization Plan,” *New York Times*, February 24, 2010

<sup>28</sup> *Daily Show with Jon Stewart*, October 24, 2011 show, available at:

<http://www.thedailyshow.com/watch/mon-october-24-2011/weather-blunderground>

<sup>29</sup> DOE IG, “Audit Report: Management Alert on the Department’s Monitoring of the Weatherization Assistance Program in the State of Illinois,” December 2009; DOE IG, “Audit Report: The State of Illinois Weatherization Assistance Program,” October 2010.

big push for increased training under ARRA, but with the strong push for increased production that was also being made there was a trade off in taking time to put workers through training. Finally, with many local agencies looking to employ the hard to employ and having the capacity to pay only modest wages, WAP did not always have the highest skilled workers in weatherization jobs.

An additional reason for modest quality work is that the local agencies that do the weatherization work are the ones who have the main responsibility for doing inspections on the units after the work is completed. Under ARRA states inspected at least five percent of units, and the federal government also checked five percent of units nationally. A critical question is whether inspectors working for or hired by local agencies have the independence to conduct high-quality inspections. Of course, weatherizing should be done right the first time. But perhaps the next best option is to have local inspectors catch – and fix - problems before jobs are reported as complete to the state and federal government. In any case, how to raise the quality of weatherization work is one of the major challenges for the WAP network going forward.

### **Paradox of Nonprofit Performance**

At least some of the concerns about the quality of weatherization work seem to be concerns that hold for nonprofit service delivery more generally. By engaging nonprofits in helping to implement federal program, the federal government gains a variety of advantages. The federal government benefits from the flexible, non-bureaucratic approach of nonprofits; the often relatively low cost of nonprofit service delivery; and the reach that nonprofits generally have into low-income communities, including their eagerness and ability to employ hard to employ workers and to serve difficult to serve clients.

At the same time, however, involving nonprofits may have some drawbacks, including perhaps service delivery that is not always of the highest quality. Nonprofits value high-quality performance but they also may hold other important values that push against top level performance. For example, the importance to some nonprofits of hiring unskilled, hard to employ workers may result in some decrement in service quality. And the interest of some nonprofits in tackling the most difficult social problems and serving the most challenging clients – all on a shoestring budget – may also be an obstacle to high-quality performance. As discussed above, at least some aspects of this paradox of nonprofit performance seem evident in WAP.

### **WAP after ARRA: Options for Federal Managers and Others in the WAP Network**

As noted above, WAP faced withering criticism through much of the ARRA period. Most recently a House Oversight Committee report proclaimed:

The Department of Energy's (DOE) \$5 billion Weatherization Assistance Program is a stunning example of how the Obama Administration has wasted billions of taxpayer dollars in a misguided effort to achieve energy

savings but ultimately commissioning work that put people's lives and homes at significant risk. The Weatherization Program, as administered by Energy Secretary Steven Chu, has resulted in excessive waste, fraud, and abuse of taxpayer dollars with very little benefit to show for it.<sup>30</sup>

In the aftermath of the huge ARRA funding increase and in light of the extensive criticism WAP has received, it is perhaps not surprising that morale in the WAP network seems low and funding prospects for the program are uncertain. With ARRA funding quickly running out, local agencies are facing the "cliff effect" of having to layoff workers and/or terminate subcontractors after the buildup under ARRA. New funding for WAP dropped off to \$68 million in FY 2012, which ran through September 30, 2012. The president's budget requested \$139.0 million for FY 2013, which began October 1, 2012, but the continuing resolution that is now funding many federal programs through March 2013 is funding WAP at just slightly above its FY 2012 level. Whether WAP and other programs are subject to mid-year, sequestration cuts in January 2013 remains to be seen.

In the face of the wilting criticism of WAP, at least one interviewee suggested that the program needed something "bold and dramatic," "a game changer," and that program supporters needed to "rethink everything" in order to change perceptions of the program. Whether the WAP network can find a game changer remains to be seen. In the meantime, program supporters are pursuing several strategies to move the program forward.

### **Addressing Quality Concerns**

A major goal of the overall shared governance project of which this case study is a part is to explore the challenges for federal executives of managing in a system in which federal staff share responsibility for implementing federal programs with a broad range of non-federal officials, in state and local governments, nonprofit organizations, businesses, and other institutions. With responsibility for program outcomes split among multiple organizations, developing an effective method for ensuring high-quality program performance can be an especially difficult challenge. When the federal government supplies significant funding for a program, federal officials have a particularly important stake in finding ways to assure program quality. What federal staff need in a system of shared governance is some form of remote control so they can influence the actions of organizations far from Washington.

For WAP, the question is how federal staff in Washington can "change the story about quality," as one interviewee put it, and ensure that local weatherization agencies around the country are delivering high-quality services. ARRA provided for increased and improved training for local weatherization workers, and this seemed to help performance quality to some degree. But attention now seems focused on the issue of the inspecting of completed projects and how these should be done. Currently, local agencies do these inspections with their own staff or they hire outsiders. Some argue that inspectors are not

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<sup>30</sup> House Committee on Oversight and Government Reform, staff report, March 20, 2012, p. 1.

sufficiently independent in the current system and that either local agencies should be required to hire more independent inspectors or federal and state agencies should play a larger role in conducting inspections. However, one underlying concern about beefing up inspections is where funding for more, and possibly more expensive, inspections will come from.

Another concern is that prodding local nonprofit weatherization agencies to raise performance levels may require them to sacrifice other important values. As suggested above, there is, at least for some nonprofits, a paradox of performance where the value of high-quality performance is in some tension with – and has to be traded off against – other important values. While nonprofits should always look for ways to be higher performers, they can go too far in pursuing improved outcomes. That is, pushing nonprofits to be higher performers may result in their having to sacrifice other legitimate values, such as employing the hard to employ and serving the hard to serve. While moving to raise performance in WAP may make great sense, federal officials and other stakeholders should be mindful about the costs of moving too far down this path.

Another approach to improving program outcomes is to inject more competition into WAP's delivery system, either with new legislation or administratively. Thus, instead of routinely funding the same local subgrantees year after year, federal and state agencies could require that local organizations compete for WAP funding. The traditional wisdom is that greater competition leads to improved efficiency and effectiveness, even if existing subgrantees still win funding in a new, competitive award process. While moving to a competitive process should be considered and might bring some benefits, it would also be disruptive to the current network and likely have some negative impacts in the short run. Moreover, even with a more competitive selection process for local subgrantees, federal and state agencies would likely still have to increase their inspection and monitoring activities to ensure that subgrantees are doing high-quality work.

### **Tapping New Sources of Funding**

A second strategy for federal officials and others in the WAP network in the post-ARRA period is to look for ways to expand support for the program and find new sources of government funding. A recent White House conference on WAP highlighted how the program energizes a whole “supply chain” that goes beyond the federal, state, and local agencies in the current WAP network to include businesses that supply equipment and material to weatherization activities.<sup>31</sup> Representatives from the supply chain have not been very active to date in advocating for the program, and program supporters believe their more active involvement might help secure more funding for WAP.

Program supporters are also looking to leverage new and different sources of funding besides WAP, LIHEAP, and funding from utilities. A growing number of federal and state Healthy Homes Initiatives, which provide support for lead abatement, asthma

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<sup>31</sup> On the June 15, 2012 White House discussion on the weatherization supply chain, see: [http://www.youtube.com/watch?v=GU\\_FZc-IMow](http://www.youtube.com/watch?v=GU_FZc-IMow) and <http://www.youtube.com/watch?v=8CP0iftuJ6M>.

prevention, pest control, and similar measures, are one possible new funding source for weatherization programs.<sup>32</sup> Some would also like to increase utility funding.

### **Serving New Markets**

Federal and other network members also talk about the possibility that local nonprofit agencies could serve a middle-income weatherization market, perhaps by setting up for-profit subsidiaries that would rely on fees for service rather than federal funding. While there is hope for a broader market for weatherization, it is not clear how much demand currently exists for weatherization. The slow economy means that many households do not have excess cash to spend on optional home improvements like weatherization, even if the energy conservation measures would save them money in the longer run. The price of home fuel will help to determine the size of the market for weatherization. If prices rise significantly, then more demand may materialize. Tax breaks for improving household energy efficiency also help to expand interest in weatherization. However, it is not clear that community action agencies, which are experienced at working with low-income clients, are well-suited to serve a middle-class market. Another possible source of earned revenue is state-run training centers, which could provide more fee-based training for weatherization workers not involved in WAP.

### **Conclusion**

The Weatherization Assistance Program engages a far-flung network of organizations and individuals from the federal government through state governments to local agencies on the ground in communities around the country. Under ARRA, WAP had some significant successes, weatherizing 600,000 homes, saving millions in energy costs, and putting thousands to work.

However, concern about slowness of production and the quality of work done seemed to overwhelm the successes. While there is disagreement about the frequency and seriousness of problems with weatherized units, there seems to be some agreement that the quality of the work that is being done should be higher no matter where it now stands. The WAP network is moving to improve training and is weighing more independent inspections of weatherized units. While WAP has persevered through other difficult times in the past, it likely faces another challenging period in the years ahead.

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<sup>32</sup> See NASCSP resources on Healthy Homes Initiatives at: <http://www.nascsp.org/Healthy-Homes.aspx> .

Figure 1:  
*The Daily Show with Jon Stewart*, October 24, 2011



Source: *The Daily Show with Jon Stewart*, October 24, 2011, available at:  
<http://www.thedailyshow.com/watch/mon-october-24-2011/weather-blunderground>

Table 1

## DOE Appropriations for WAP (\$ millions) and Number of Units Weatherized

Fiscal Year	Appropriations	Units Weatherized
1999	133.0	71,984
2000	135.0	74,316
2001	153.0	77,709
2002	230.0	104,860
2003	223.5	100,428
2004	227.2	99,593
2005	228.2	97,500
2006	242.6	104,283
2007	204.6	
2008	227.2	
2009	441.0 <sup>a</sup>	
ARRA	5,000.0	
2010	180.0 <sup>b</sup>	
2011	174.3	
2012	68.0	
President's request 2013	139.0	
Mean, 1999-2006		91,334
Mean, 1999-2008	200.4	
Mean 2009-2011	1,931.8	

a. Excludes \$9 million for Sustainable Energy Resources for Consumers (SERC) grants.

b. Excludes \$30 million for the Weatherization Innovation Pilot Program (WIPP)

Sources: Fred Sissine, "DOE Weatherization Program: A Review of Funding, Performance, and Cost-Effectiveness," Washington: U.S. Congressional Research Service, January 11, 2012, pp. 44-45; DOE, Weatherization Program Notices, Program Year Grantee Allocations, PY 2009-2112; President's Budget FY 2013.

Table 2

## Total Funding for WAP from All Sources (\$ millions)

Program Year	DOE		LIHEAP		Other		Total
	Amount	Percent	Amount	Percent	Amount	Percent	Amount
1999	134.3	35%	168.9	44%	84.8	22%	388.0
2000	136.8	31%	193.1	44%	109.0	25%	438.9
2001	158.7	31%	230.8	45%	125.3	24%	514.8
2002	223.1	39%	211.8	37%	130.8	23%	565.7
2003	223.8	37%	219.5	37%	156.9	26%	600.2
2004	224.1	37%	225.7	37%	152.9	25%	602.7
2005	228.9	36%	247.4	39%	163.9	26%	640.2
2006	238.2	33%	312.7	43%	180.6	25%	731.5
2007	206.4	30%	260.1	38%	216.6	32%	683.1
2008	237.5	24%	332.8	34%	409.7	42%	980.0
2009	413.3	35%	601.3	51%	174.7	15%	1,189.3
ARRA	4,746.0	100%	0.0	0%	0.0	0%	4,746.0
2010	204.7	20%	604.1	59%	210.2	21%	1,019.0
2011	252.4	23%	598.0	55%	237.8	22%	1,088.2
Mean, 1999-2008	201.2	33%	240.3	39%	173.1	28%	614.5
Mean, 2009-2011	1,872.1	70%	601.1	22%	207.6	8%	2,680.8
Mean, 2009-2011 vs. Mean, 1999-2008	9.3		2.5		1.2		4.4

Sources: National Association for State Community Services Programs (NASCS), "Weatherization Assistance Program Funding Survey: PY 2009," p. 5, and NASCS, "Funding Survey: PY 2011," pp. 5, 17.

Table 3

State Allocations from DOE WAP, ARRA vs. 2008 (\$ thousands)

	2008	ARRA	ARRA vs. 2008	Annualized ARRA vs. 2008
Other	410.4	80,439.4	196.0	65.3
Texas	5,549.4	326,975.7	58.9	19.6
Arizona	1,128.8	57,023.3	50.5	16.8
Nevada	831.7	37,281.9	44.8	14.9
Georgia	2,914.6	124,756.3	42.8	14.3
Florida	4,669.4	175,984.5	37.7	12.6
South Carolina	1,780.9	58,892.8	33.1	11.0
North Carolina	4,139.2	131,954.5	31.9	10.6
California	5,870.6	185,811.1	31.7	10.6
Mississippi	1,640.9	49,421.2	30.1	10.0
Alabama	2,396.4	71,800.6	30.0	10.0
Connecticut	2,495.3	64,310.5	25.8	8.6
Virginia	3,998.0	94,134.3	23.5	7.8
New Jersey	5,079.0	118,821.3	23.4	7.8
Arkansas	2,061.0	48,114.4	23.3	7.8
Kansas	2,518.8	56,441.8	22.4	7.5
Missouri	5,975.4	128,148.0	21.4	7.1
Maryland	2,904.4	61,441.7	21.2	7.1
Indiana	6,710.9	131,847.4	19.6	6.5
New York	20,100.0	394,686.5	19.6	6.5
Delaware	731.4	13,733.7	18.8	6.3
Louisiana	2,735.7	50,657.5	18.5	6.2
Massachusetts	6,615.1	122,077.5	18.5	6.2
Utah	2,067.6	37,897.2	18.3	6.1
Ohio	14,626.9	266,781.4	18.2	6.1
Oklahoma	3,399.6	60,903.2	17.9	6.0
Illinois	13,784.5	242,526.6	17.6	5.9
Rhode Island	1,151.0	20,073.6	17.4	5.8
Pennsylvania	14,638.2	252,793.1	17.3	5.8
Nebraska	2,482.4	41,644.5	16.8	5.6
Wisconsin	8,608.5	141,502.1	16.4	5.5
Iowa	4,966.1	80,834.4	16.3	5.4
Michigan	15,118.8	243,399.0	16.1	5.4
New Mexico	1,714.5	26,855.6	15.7	5.2
Kentucky	4,550.3	70,913.8	15.6	5.2
New Hampshire	1,501.8	23,218.6	15.5	5.2
Idaho	1,964.4	30,341.9	15.4	5.1
Colorado	5,454.3	79,531.2	14.6	4.9
Hawaii	282.3	4,041.5	14.3	4.8

	2008	ARRA	ARRA vs. 2008	Annualized ARRA vs. 2008
Oregon	2,808.4	38,512.2	13.7	4.6
Vermont	1,272.1	16,842.6	13.2	4.4
Minnesota	9,989.1	131,937.4	13.2	4.4
Maine	3,235.7	41,935.0	13.0	4.3
Washington	5,033.9	59,545.1	11.8	3.9
Alaska	1,540.1	18,142.6	11.8	3.9
West Virginia	3,196.9	37,583.9	11.8	3.9
Tennessee	8,868.5	99,112.1	11.2	3.7
Montana	2,507.8	26,543.8	10.6	3.5
Dist. Columbia	836.7	8,089.0	9.7	3.2
Wyoming	1,128.9	10,239.3	9.1	3.0
South Dakota	3,020.1	24,487.3	8.1	2.7
North Dakota	4,500.0	25,266.3	5.6	1.9
Total	237,506.7	4,746,250.2	20.0	6.7

Source: NASCSP, "Weatherization Assistance Program: Funding Survey PY 2011," pp. 11, 17.

Table 4

Number of Units Weatherized as of February 6, 2010 as a Percentage of  
Total Units Planned for Weatherization under ARRA

	Percent Weatherized
Delaware	34.01
Mississippi	26.92
Ohio	21.17
West Virginia	18.47
Idaho	17.70
Vermont	17.37
Utah	16.09
Virginia	14.77
Washington	14.04
Tennessee	13.59
New Hampshire	13.38
Colorado	13.07
Maine	12.65
North Dakota	12.30
Arkansas	11.20
Montana	9.85
Minnesota	8.44
Massachusetts	7.74
Oklahoma	7.37
Alabama	7.17
Arizona	5.60
New Mexico	5.56
Iowa	5.14
Missouri	5.06
Indiana	4.94
Kentucky	4.75
Nebraska	4.75
Kansas	4.59
Georgia	4.56
South Carolina	4.40
Oregon	4.12
Maryland	4.07
Wisconsin	3.73
South Dakota	2.28
Louisiana	2.02
Florida	1.63
Nevada	1.52

	Percent Weatherized
Pennsylvania	1.28
Illinois	1.23
Michigan	1.15
North Carolina	0.89
New York	0.62
New Jersey	0.41
Connecticut	0.31
California	0.03
Alaska	0.00
Dist. Columbia	0.00
Hawaii	0.00
Rhode Island	0.00
Texas	0.00
Wyoming	0.00
Other	0.00
Total	5.17

Source: DOE IG, "Special Report: Progress in Implementing the Department of Energy's Weatherization Assistance Program Under the American Recovery and Reinvestment Act," February 2010, Appendix II.