



Oregon Housing and Community Services *and* The American Recovery and Reinvestment Act

Low- Income Weatherization Program: *Forecasting Economic Impacts*

In February of 2009, Congress passed the American Recovery and Reinvestment Act (ARRA). Primary objectives of this legislation include stimulating the economy, fostering job growth, and providing assistance to vulnerable families. One vehicle for achieving these outcomes is the National Low-Income Weatherization Assistance Program, whose state grantees have been charged with the task of weatherizing over one-million homes nationally.

Over the next three years, the State of Oregon will weatherize over 4500 homes with ARRA funding-- simultaneously assisting low-income households and stimulating job growth across our state.

Forecasted Economic Growth

When local agencies implement weatherization programs within their communities, their purchase of materials and services directly impact the local economy. Economists use Input-Output analysis to measure these impacts—more specifically, how dollars which move between businesses, vendors and households “multiply.”

Table 1: Output by Program Expenditures

	Impacts*			
	Direct	Indirect	Induced	Total
Jackson	\$1,719,718	\$392,879	\$1,439,868	\$3,552,465
Gilliam, Morrow, Umatilla, Wheeler	\$1,292,731	\$201,910	\$683,498	\$2,178,139
Washington	\$3,024,831	\$570,301	\$2,111,085	\$5,706,217
Clatsop, Columbia, Tillamook	\$1,063,299	\$162,703	\$557,925	\$1,783,927
Baker, Grant, Union, Wallowa	\$1,057,038	\$156,603	\$548,939	\$1,762,580
Clackamas	\$2,266,335	\$508,707	\$1,552,800	\$4,327,842
Deschutes, Jefferson, Crook	\$1,913,763	\$406,456	\$1,574,492	\$3,894,711
Benton, Lincoln, Linn	\$2,301,027	\$430,059	\$1,519,488	\$4,250,574
Lane	\$3,060,484	\$667,424	\$2,428,499	\$6,156,406
Harney, Malheur	\$1,289,707	\$159,339	\$608,579	\$2,057,625
Hood River, Sherman, Wasco	\$993,917	\$155,461	\$562,484	\$1,711,862
Multnomah	\$4,818,182	\$1,067,960	\$3,543,615	\$9,429,757
Marion, Polk	\$3,377,468	\$728,482	\$2,601,135	\$6,707,086
Klamath, Lake	\$1,402,055	\$246,023	\$872,767	\$2,520,845
Coos, Curry	\$995,379	\$184,508	\$514,398	\$1,694,285
Douglas, Josephine	\$2,032,567	\$378,912	\$1,232,026	\$3,643,505
Yamhill	\$930,721	\$135,234	\$507,325	\$1,573,280
State of Oregon**	\$38,512,236	\$9,894,113	\$40,120,450	\$88,526,799

* All Impacts reflect 2009 Dollars. Totals may not add up due to rounding.

** State impacts include additional, non-county specific training and technical assistance funding

Over \$38 million dollars of Oregon ARRA Weatherization grant monies will be initially spent in three areas: labor and materials, workforce training, as well as program administration. According to Table 1 these direct expenditures will produce another \$50,014,563 of indirect and induced economic impacts across Oregon.

The ARRA Weatherization funding will also have significant impacts on employment. Table 2 demonstrates that for each job associated with the ARRA weatherization dollars, up to another 0.6 jobs are created locally to support the program. In total, 1099 new jobs will be created across Oregon as a result of ARRA Weatherization funding. These jobs are in addition to the employment already supported by existing weatherization grant monies within our state.

Table 2: Employment by Program Expenditures

	Impacts*			
	Direct	Indirect	Induced	Total
Jackson	33	4	15	53
Gilliam, Morrow, Umatilla, Wheeler	26	2	8	36
Washington	42	5	17	64
Clatsop, Columbia, Tillamook	18	2	6	26
Baker, Grant, Union, Wallowa	20	2	7	29
Clackamas	38	5	15	58
Deschutes, Jefferson, Crook	35	4	17	56
Benton, Lincoln, Linn	41	5	18	64
Lane	52	7	26	85
Harney, Malheur	25	2	7	34
Hood River, Sherman, Wasco	19	2	7	28
Multnomah	66	9	30	105
Marion, Polk	62	8	28	97
Klamath, Lake	26	3	10	39
Coos, Curry	20	2	6	28
Douglas, Josephine	37	4	14	56
Yamhill	15	2	5	21
State of Oregon**	628	90	381	1099

* All Impacts reflect 2009 Dollars. Totals may not add up due to rounding.

** State impacts include additional, non-county specific training and technical assistance funding

Other Non-Energy Benefits

While economic and workforce stimulus are primary goals of the American Recovery and Reinvestment Act, weatherization programs also directly impact vulnerable Oregonians.

In many cases, agencies that weatherize homes also improve safety conditions in the process. For example, in older homes, lead testing is performed prior to any service provision, and moisture sealing procedures help to prevent mold and mildew (widely known to exacerbate respiratory illnesses). Unsafe appliances (such as older furnaces) are often removed from the home and replaced with more efficient models. Carbon monoxide and smoke detectors are installed in homes where there were none.

While safety is certainly tied to physical health, a multitude of research indicates that housing conditions also contribute to emotional and social well-being. However, the struggle to create and maintain affordable housing stock is becoming more difficult. Through structural improvement measures such as insulation, window replacement and duct sealing, the low-income weatherization program serves to *preserve and maintain* existing affordable housing units throughout Oregon.

Studies suggest a range of connections between housing conditions and mobility, increased social capital, child behavior and performance in school. If weatherization programs improve the safety and conditions of housing units, we could anticipate seeing positive, “difficult to measure” social outcomes (e.g. family stability, increased community involvement, improved school performance) amongst households served within our state.

Household Energy Savings

According to the U.S. Department of Energy, households who participate in the weatherization program save an average \$413 per year in energy costs. While utility payments tend to escape the regional economy, household energy savings are more likely to be spent on goods and services in residents’ local communities.

Table 3: Output, Household Energy Savings

Impacts*		
	Direct Savings	Total Impact
Jackson	\$98,294	\$158,460
Gilliam, Morrow, Umatilla, Wheeler	\$73,927	\$92,220
Washington	\$172,634	\$248,718
Clatsop, Columbia, Tillamook	\$60,711	\$75,670
Baker, Grant, Union, Wallowa	\$60,298	\$74,291
Clackamas	\$129,629	\$186,636
Deschutes, Jefferson, Crook	\$109,032	\$172,496
Benton, Lincoln, Linn	\$130,921	\$181,789
Lane	\$174,699	\$272,618
Harney, Malheur	\$73,514	\$89,525
Hood River, Sherman, Wasco	\$56,581	\$73,789
Multnomah	\$275,058	\$444,472
Marion, Polk	\$192,871	\$295,410
Klamath, Lake	\$80,122	\$107,959
Coos, Curry	\$56,994	\$70,996
Douglas, Josephine	\$116,053	\$158,206
Yamhill	\$53,277	\$66,619
State of Oregon	\$1,914,255	\$3,484,977

Using the average incomes of Oregonians accessing the weatherization program, as well as the number of households each agency serves, we’ve run energy savings through IMPLAN as household consumption expenditures. This measure allows us to see where families would likely spend their extra money, and how this spending impacts the local economy.

According to Table 3, ARRA Funding will result in statewide energy savings of \$1,914,255. Oregon families who spend these savings in their community generate up to an additional \$.62 cents of economic activity for each dollar they spend locally, and will generate an additional \$1,570,722 statewide.

Partnership and Collaboration

The established outcomes for the American Recovery and Reinvestment Act demand strong partnerships to leverage and maximize resources, both for households in poverty as well as the Oregonians in general. The Department of Oregon Housing and Community Services recognizes that collaboration with other state and local agencies is not simply a “means to an end,” but rather an outcome that will benefit Oregon communities long after ARRA funding has been expended.

Currently, the Oregon Weatherization Program is partnering with state agencies and non-governmental organizations to provide professional training that will not only assure quality weatherization services in the homes we serve, but will also provide unemployed and underemployed Oregonians with a new or expanded skill set. Additionally, Oregon Housing and Community Services hopes to add renewable applications to the statewide training curriculum, thereby strengthening Oregon’s foundation for a green economy.

Most importantly, the Oregon Weatherization Program recognizes that during an economic downturn, energy efficiency is just one of many concerns confronting low-income families. Therefore, Oregon Housing and Community Services is actively fostering partnerships with regional and statewide organizations who, like us, acknowledge that eradicating poverty means addressing the broad spectrum of issues facing working families across Oregon.

Measuring Economic Impacts

For this particular analysis, we utilized the software program *IMPLAN Professional* (IMpact Analysis and PLANning). IMPLAN allows users to construct models using a database of multipliers constructed from several data sources including the Bureau of Economic Analysis, Bureau of Labor Statistics and the U.S. Department of Commerce. Using this type of modeling, we are able to capture a fairly predictive “snapshot” of how economic impacts (in this case, weatherization programs) can affect specific characteristics of a specific economy. These aspects include:

- *Output:* purchases made between businesses resulting from the weatherization program
- *Employment:* jobs created from increased business

IMPLAN also measures the *type* of economic activity associated with specific impacts. These include:

- *Direct:* initial spending
- *Indirect:* spending by industries as they restock inventory/buy supplies in response to impact
- *Induced:* expenditures by households/government as a result of receiving direct/indirect income

Weatherization program expenditures generate economic activity at both the state and local level. Local area impacts, although significant, are generally smaller than those impacts felt statewide. This is because many small communities cannot fully support industry demand, and must import supply from nearby economies. In most cases, these demands are absorbed within the state, hence larger statewide impacts.

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