

Estimated Number of Households Income-Eligible for the Department of Energy Weatherization Assistance Program as of 2015

Households are eligible for the Department of Energy Federal Weatherization Assistance Program (WAP) if their incomes are at or below 200% of the poverty level as determined by the Department of Health and Human Services Poverty Income Guidelines. There is no published Census data table that displays the count of how many households are eligible in each state. While there is data published of the number of families at or below 200% of the poverty level, there are many low-income non-family households that this data does not capture. A new report was produced using the 2015 American Community Survey (ACS) 1-year Public Use Microdata Series (PUMS) released in October 2016. With PUMS, household income and household size are available for each respondent. Since household income and size are the two factors used to determine WAP eligibility, it can be estimated* how many households in each state are income-eligible.

This unofficial estimate gives Weatherization grantees and the federal program the first close approximation or snapshot of the number of income-eligible households who might be considered for Weatherization services. It is not a true estimate of need. The Department of Energy reports over 7.5 million eligible homes have been weatherized over the lifetime of the WAP. The weatherized homes in lower-income areas are likely to still be occupied by low-income people, but may not be good candidates for additional services. Some of the income-eligible homes are too dilapidated to accommodate WAP measures; others are sturdier and relatively efficient. However, a large share of the homes of the nearly 36 million income-eligible households would be safer, healthier, and more affordable after being served by the WAP.

A state-by-state table of the eligible population is followed by a scatterplot showing the differences among states in both the size and percent of their income-eligible population. California has the most income-eligible households, but almost half of Mississippi's total households are income-eligible.



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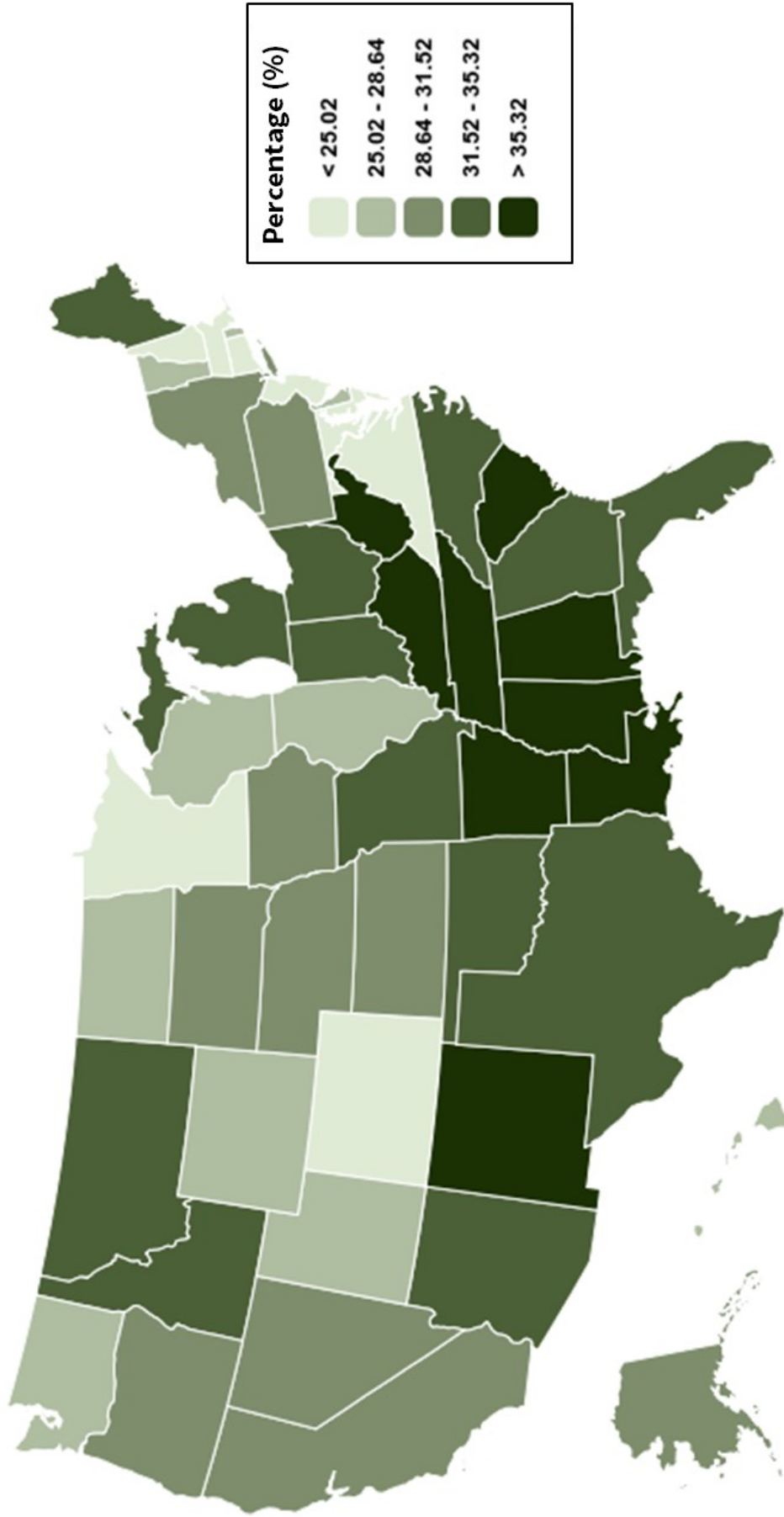
State	Income-Eligible Households	Total Households	Percent of Income-Eligible Households	Climate Zone
Alabama	697,789	1,846,390	37.8%	Hot-humid
Alaska	72,955	250,185	29.2%	Very Cold
Arizona	796,930	2,463,008	32.4%	Hot-dry
Arkansas	455,158	1,144,663	39.8%	Moderate
California	3,801,442	12,896,357	29.5%	Hot-dry
Colorado	517,105	2,074,735	24.9%	Cold
Connecticut	300,507	1,343,703	22.4%	Cold
Delaware	89,193	352,595	25.3%	Moderate
District of Columbia	66,507	281,787	23.6%	Moderate
Florida	2,492,122	7,463,184	33.4%	Hot-humid
Georgia	1,241,342	3,656,407	33.9%	Hot-humid
Hawaii	117,547	445,936	26.4%	Hot-humid
Idaho	206,309	597,421	34.5%	Very Cold
Illinois	1,343,058	4,794,523	28.0%	Cold
Indiana	798,034	2,515,143	31.7%	Cold
Iowa	360,332	1,247,249	28.9%	Cold
Kansas	321,302	1,111,582	28.9%	Moderate
Kentucky	640,354	1,716,168	37.3%	Moderate
Louisiana	655,017	1,737,908	37.7%	Hot-humid
Maine	175,914	545,226	32.3%	Very Cold
Maryland	440,080	2,177,934	20.2%	Moderate
Massachusetts	611,933	2,559,951	23.9%	Cold
Michigan	1,223,242	3,858,532	31.7%	Very Cold
Minnesota	512,010	2,147,262	23.8%	Very Cold
Mississippi	474,828	1,104,371	43.0%	Hot-humid
Missouri	767,821	2,374,180	32.3%	Moderate
Montana	136,697	414,804	33.0%	Very Cold
Nebraska	215,041	744,159	28.9%	Cold
Nevada	320,002	1,042,065	30.7%	Hot-dry
New Hampshire	108,563	517,615	21.0%	Very Cold
New Jersey	737,181	3,187,963	23.1%	Cold

State	Income-Eligible Households	Total Households	Percent of Income-Eligible Households	Climate Zone
New Mexico	292,851	761,797	38.4%	Moderate
New York	2,101,795	7,233,694	29.1%	Cold
North Carolina	1,335,850	3,843,745	34.8%	Moderate
North Dakota	78,561	313,475	25.1%	Very Cold
Ohio	1,459,284	4,606,655	31.7%	Cold
Oklahoma	516,082	1,465,951	35.2%	Moderate
Oregon	477,835	1,553,205	30.8%	Moderate
Pennsylvania	1,429,567	4,956,037	28.8%	Cold
Rhode Island	116,515	407,484	28.6%	Cold
South Carolina	658,930	1,857,768	35.5%	Hot-humid
South Dakota	100,497	339,437	29.6%	Very Cold
Tennessee	903,435	2,530,260	35.7%	Moderate
Texas	3,039,254	9,421,412	32.3%	Hot-humid
Utah	253,864	930,980	27.3%	Cold
Vermont	67,718	254,865	26.6%	Very Cold
Virginia	751,026	3,106,895	24.2%	Moderate
Washington	691,029	2,728,573	25.3%	Moderate
West Virginia	282,892	734,536	38.5%	Cold
Wisconsin	641,199	2,319,538	27.6%	Very Cold
Wyoming	58,140	228,937	25.4%	Very Cold
Total	35,952,639	118,208,250	30.4%	

Eligibility determined by being at or below 200% of the poverty level as outlined in the 2015 Department of Health and Human Services Poverty Income Guidelines. The three separate thresholds set for the contiguous states, Alaska, and Hawaii were used to create the data. An estimate was not made for US territory Grantees.

Source: Weatherization Leveraged Partnerships Project analysis of 2015 American Community Survey (ACS) 1-year Public Use Microdata Series (PUMS) IPUMS-USA, University of Minnesota, www.ipums.org.

Percentage of State Households Income-Eligible for the DOE Weatherization Assistance Program



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DATA SOURCES

2015 American Community Survey (ACS) 1-year Public Use Microdata Series (PUMS)
IPUMS-USA, University of Minnesota, www.ipums.org.

HOUSEHOLDS AND FAMILIES, 2015 American Community Survey 1-Year Estimates
[https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml
pid=ACS_15_1YR_S1101&prodType=table](https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_1YR_S1101&prodType=table)

METHODOLOGY

PUMS Variables

NUMPREC- number of persons record following
HHINCOME- total household income
STATEFIP- state (FIPS code)
YEAR- census year
HHWT- Household weight
PERWT- Person weight
DATANUM- data set number
SERIAL- household serial number
GQ- Group Quarters Status
PERNUM- person number in sample unit

Recoding

In SPSS, the HHINCOME variable was recoded into new variables that represented each household size. Because the poverty level is determined by household size and household income, this data was needed to determine how many households fall into each income range paired with household size. This analysis requires HHINCOME to be broken down into new categories that were based on what was not only in the HHINCOME column, but also based on the NUMPREC column (number of persons record following). For example, the HHINCOME variable was recoded into “One Person” by making 1.00 represent every household that has 1 person (NUMPREC=1) and has an income below <23,540. For income >23,541, it was recoded as .00. This recoding of the HHINCOME variable into 1.00s for eligible households and .00s for the excluded households was repeated for every household size. Separate recoding was done for each household size for Hawaii and Alaska because they have different poverty guidelines.

Weighting

The ACS HHWT (household weight) was applied because the analysis is for household level data.

Selecting Cases

The PUMS data contains entries for every member of the household. To get data for the entire household, only the first member of the household entry was selected as a case (PERNUM=1). Every member of the household has the same household income attached to its case, so selecting the first member is representative of the entire household.

Invalid Data

Cases where the HHINCOME variable was 999,999,999 or a negative number were excluded in the analysis of the data set.

Analysis

Crosstabs were used to produce charts for each household size. These charts had data for each state split into 1.00 (households under 200%) and .00 (households over 200%). In Excel, all of the 1.00s from every household size chart for each state were added together into a new column. To get the percentage of households eligible out of the total households, the eligible households in each state were divided by the total households from the sample for that state. This percentage was then multiplied by the total households for each state as found in [HOUSEHOLDS AND FAMILIES, 2015 American Community Survey 1-Year Estimates](#).

Weatherization Leveraged Partnerships Project

www.weatherizationplus.org

Providing training and assistance to WAP subgrantees and their associations as they design and advocate for private partnerships and programs to coordinate with their federally-funded services

NKramer@communityactionpartnership.com

MegPower@opportunitystudies.org

Analyzed and Compiled by Lindsey Bullen, Summer Research Associate, Community Action Partnership

www.communityactionpartnership.com/menus/energy-partnerships.html