



# **Incorporating Justice40 Into the Weatherization Assistance Program (WAP)**

Considerations in Grantee Funding Allocation Formulas

National Renewable Energy Laboratory

Allison Moe

December 8, 2022

# Agenda

- 1** Overview of Justice40

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- 2** Data Resources for Grantee Allocation Formula Factors

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- 3** Tools for Identifying Disadvantaged Communities

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- 4** WAP Case Study (PA)

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- 5** Questions and Discussion

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# Objectives

- Discuss the Justice40 Initiative and its relationship to the Weatherization Assistance Program (WAP)
- Identify the factors that state agencies are using to allocate U.S. Department of Energy (DOE) WAP funds to local weatherization agencies
- Demonstrate the new tools and data sets available
- Learn about how some grantees are addressing disadvantaged communities more broadly.

# Overview of Justice40

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# Context



On January 25, 2021, President Biden signed **Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.**

EO 13985 directed the U.S. Office of Management and Budget (OMB) to work with federal agencies to develop plans to promote “equitable delivery of government benefits and opportunities.”

# Context



In April of 2022, DOE released its **Equity Action Plan**

*“to ensure that the agency eliminates barriers to access, transforms programs and policies to open even broader pathways for underrepresented groups to access DOE resources, and stands up new programs to better serve communities.”*

# Context



On January 27, 2021, President Biden signed Executive Order 14008, which formalized the creation of the **Justice40 Initiative**.

*“The Federal Government has made it a goal that 40 percent of the overall benefits of certain Federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution.”*

# Justice40 Initiative

## Investments Covered by Justice40:

- Climate change
- **Clean energy**
- **Energy efficiency**
- Clean transit
- **Affordable and sustainable housing**
- **Training and workforce development**
- Remediation and reduction of legacy pollution
- Development of critical clean water and wastewater infrastructure.



Image Source: <https://betterbuildingsolutioncenter.energy.gov/accelerators/workforce>



# Justice40 Initiative

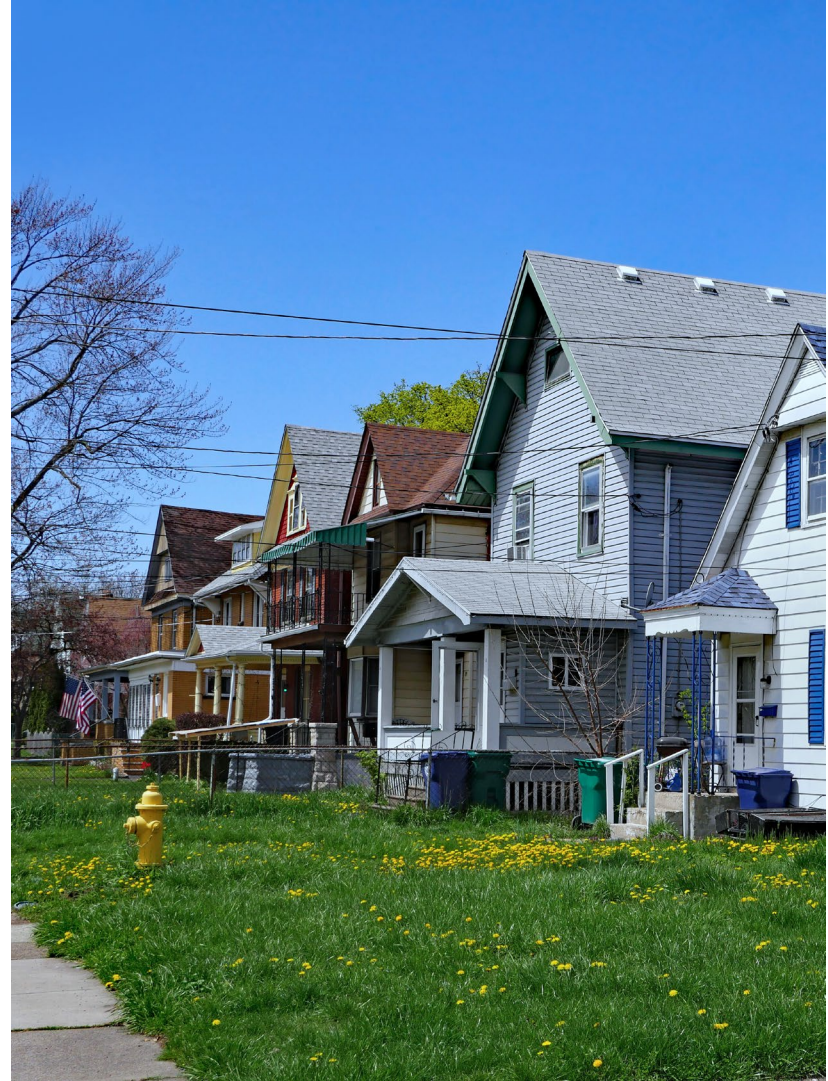
## WAP Definition of Disadvantaged:

- Low-income households
- High energy burden households.

**WAP disadvantaged households may not always be located in disadvantaged communities.**

## Covered WAP Activities:

- All WAP operations
- Health and safety
- Weatherization readiness
- Training and technical assistance.



# Justice40 Initiative

## WAP Focus for Justice40:

- Prioritize low income and high energy burden households through program guidance, monitoring, and training and technical assistance.
- Offer competitive grants to enable innovative approaches to weatherization in disadvantaged communities.



# Grantee Allocation Formula Factors

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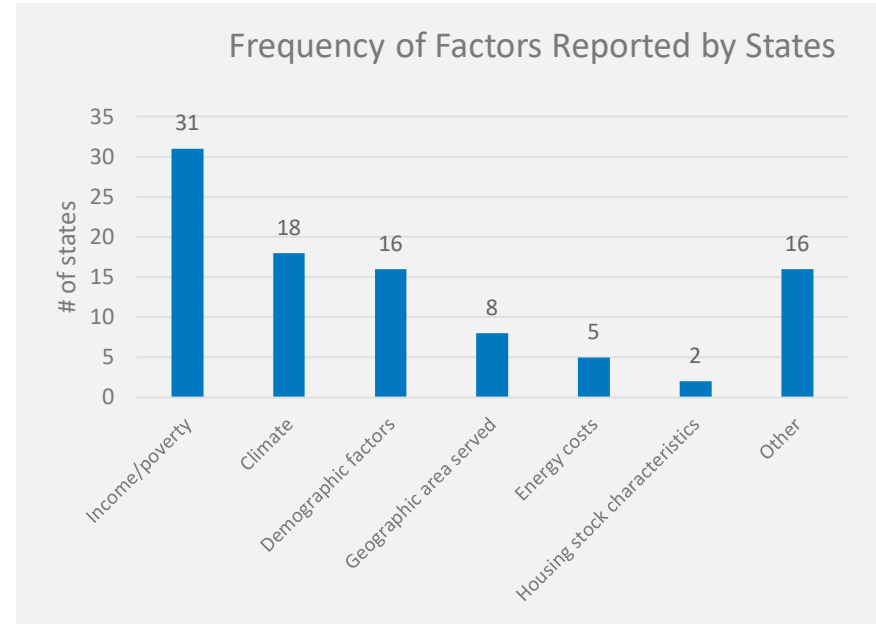
Summary of factors reported used by Grantees  
in Program Year (PY) 23 plans submitted to DOE



# PY23 Allocation Factors

**Grantees reported using the following factors for allocating funds across their service territories:**

- Income
- Climate
- Demographic factors
- Geographic area served
- Energy costs
- Housing stock characteristics
- Other.



# Income

## Federal Poverty Level (FPL)

Compares household pre-tax income to national income thresholds based on family size.

“Low income” defined as 200% FPL or less.

### CONSIDERATIONS

Easy calculation

Aligns with DOE/WAP guidelines

Same measurement for every location in the U.S.\*

FPL Guidelines issued by the [U.S. Department of Health and Human Services](#) and updated annually.

# Income

## Median Income

Calculation of the mid-point pre-tax income for all households in a specific geographic area.

### CONSIDERATIONS

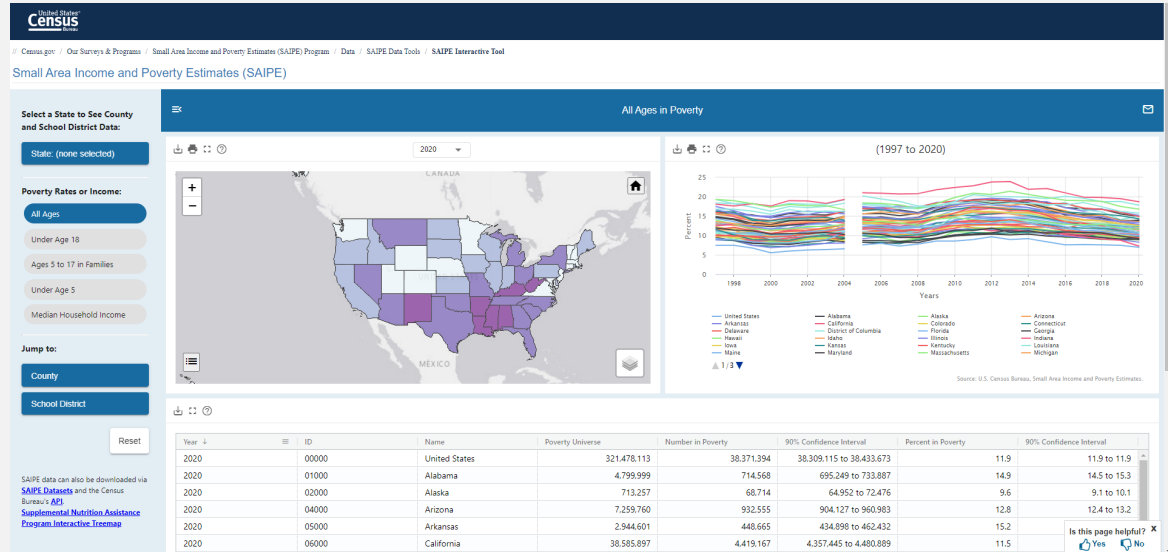
Identifies “low income” relative to incomes in the region

Must look up income for each region/county served

- Median household income is [defined by the U.S. Census Bureau](#) and available at the state and county level.
- Area median income (AMI) is [used by the U.S. Department of Housing and Urban Development \(HUD\)](#) and is specific to metropolitan statistical areas. “Low income” typically defined as 80% AMI.

# Income

## FPL and Median Household Income



User-Friendly Tool to Access Data

[U.S. Census Bureau Small Area Income and Poverty Estimates:](https://www.census.gov/data-tools/demo/saipe/#/)

[https://www.census.gov/data-tools/demo/saipe/#/.](https://www.census.gov/data-tools/demo/saipe/#/)



# Climate

## Overview of Data Factor

### Heating Degree Days

Calculation of how often and by how much the average temperature for a region was colder than 65°F, indicating the need for heating in the home.

HDD can be annual or based on 30-year averages.

#### CONSIDERATIONS

Can help identify areas of state that may be more likely to have higher heating/cooling needs (for states with diverse microclimates)

Measured at weather stations across the country and data maintained by the [National Oceanic and Atmospheric Administration](#).

# Climate

## Heating Degree Days

The screenshot shows the ENERGY STAR Portfolio Manager website's Degree Days Calculator. At the top left is the ENERGY STAR logo and the text 'ENERGY STAR® PortfolioManager®'. At the top right are links for 'Help | Login' and 'Language: English | Français'. The main heading is 'Degree Days Calculator'. Below it is a paragraph explaining that the calculator pulls weather station data from over 900 stations in the US and Canada, and allows for weather normalization. The calculator form includes fields for Country (dropdown), State/Province (dropdown), Postal Code (text input), and Year Ending (dropdown with 'Jan 31' selected). A blue 'Calculate' button is at the bottom right of the form. To the right of the form is a section titled 'About HDD and CDD' which explains that HDD and CDD are measures of heating or cooling needed relative to a 65°F base, with a 'Learn More' link. At the bottom of the page are social media icons for Twitter, Facebook, YouTube, and LinkedIn, along with links for 'Contact Us', 'Privacy Policy', 'Browser Requirements', and 'ENERGY STAR Buildings & Plants Website'.

User-Friendly Tool to  
Access Data

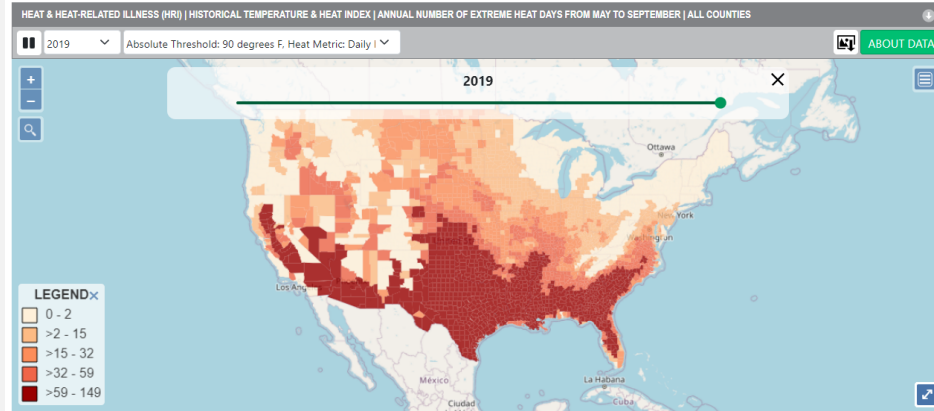
**[ENERGY STAR® \(Annual Averages\):  
https://portfoliomanager.energystar.gov/pm/  
degreeDaysCalculator](https://portfoliomanager.energystar.gov/pm/degreeDaysCalculator)**

# Climate

## Another Climate-Related Data Tool

EXTREME HEAT LIHEAP PURPOSE LIHEAP FUNDING Versión en Español

**Map Details:** This map of U.S. counties represents the historical temperature and heat index with the count (number) of extreme heat days (days above 90 degrees Fahrenheit) from 1979 - 2019. Counties in dark red experienced the greatest increase in the number of extreme heat days, as compared to counties in light red. Regional trends in extreme heat days are apparent in the map. In particular, the Southern Great Plains and Southeast regions of the U.S. have experienced the greatest increases in the number of extreme heat days over the 40-year period, as have some areas of the Southwest, Northeast, and Midwest regions. Many of the states in the Western U.S., as well as those in the Northern Great Plains, region have not experienced significant changes in extreme heat days.



Time series map by [Centers for Disease Control and Prevention \(CDC\)](#)

User-Friendly Tool to  
Access Data

**[LIHEAP Extreme Heat Dashboard:](https://liheap-and-extreme-heat-hhsacf.hub.arcgis.com/)**

**[https://liheap-and-extreme-heat-hhsacf.hub.arcgis.com/.](https://liheap-and-extreme-heat-hhsacf.hub.arcgis.com/)**

# Demographic Factors

- Share of households where **children** are present
- Share of households where **elderly persons** are present
- Share of households where **disabled persons** are present
- Share of households that are **owner-occupied** vs. renter
- Share of households that identify as **Native American**.

## CONSIDERATIONS

Takes into account possible impacts on cost of living

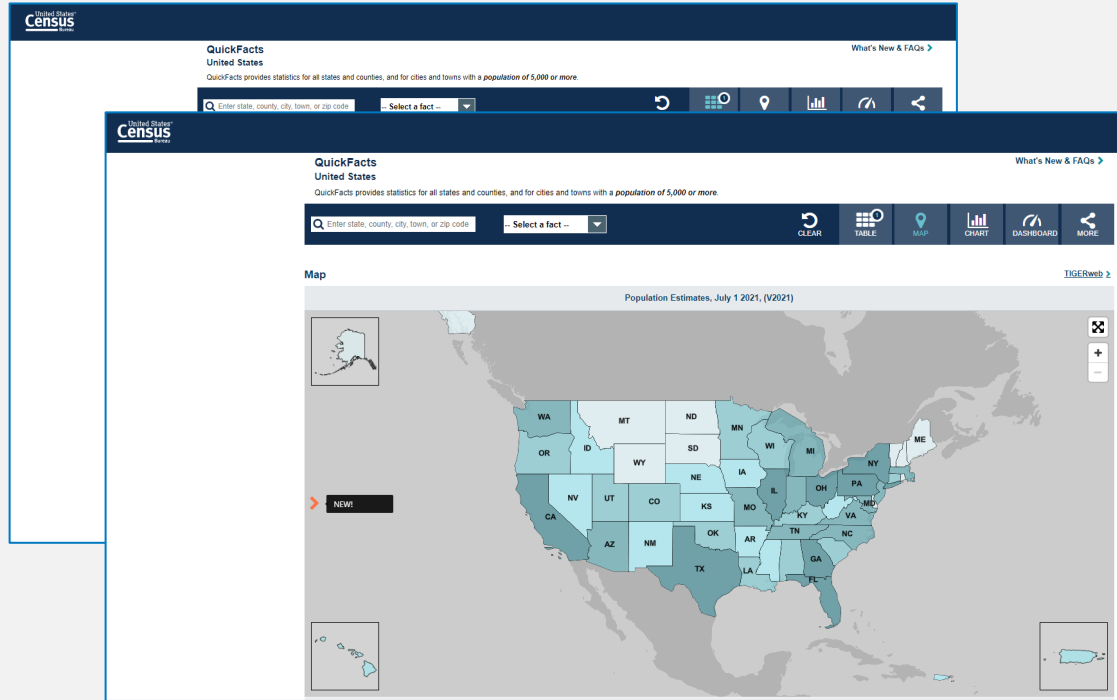
Can help estimate households likely to qualify for WAP

Can address at-risk demographics

Overview of Data  
Factor

Tracked and released by the [U.S. Census Bureau's American Community Survey](#), updated annually\*.

# Demographic Factors



User-Friendly Tool to  
Access Data

[U.S. Census Bureau QuickFacts – Tables & Map Functions](https://www.census.gov/quickfacts/fact/table/US/PST045221)  
[https://www.census.gov/quickfacts/fact/table/US/PST045221.](https://www.census.gov/quickfacts/fact/table/US/PST045221)

# Geographic Area Served

Overview of Data Factor

- **Share of state population** located within service territory
- **Service territory size** (land area) relative to the state
- **Population density** of service territory.

## CONSIDERATIONS

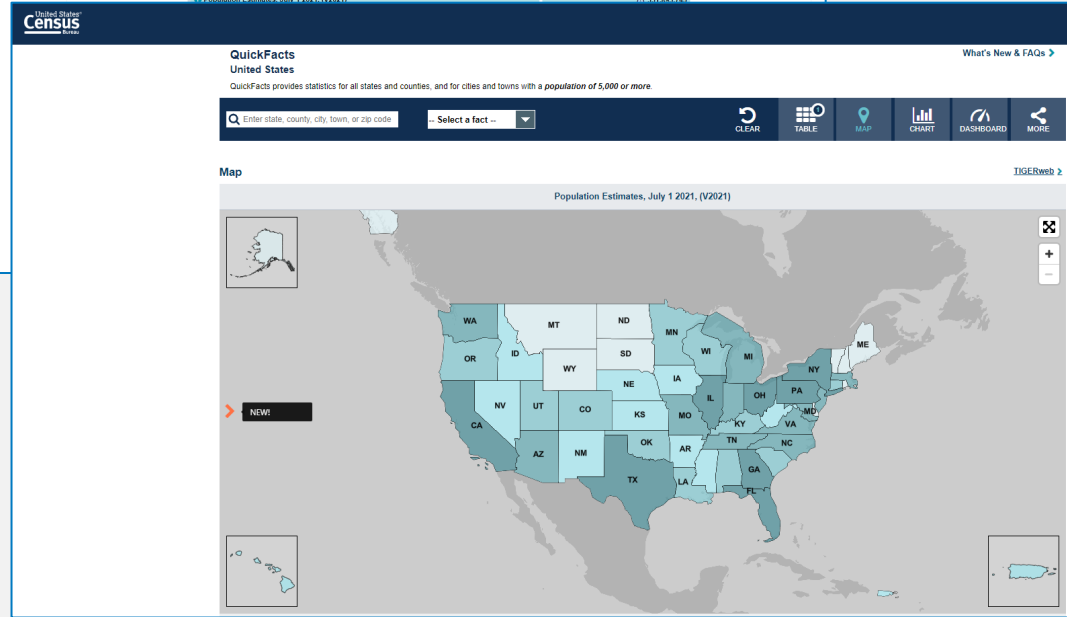
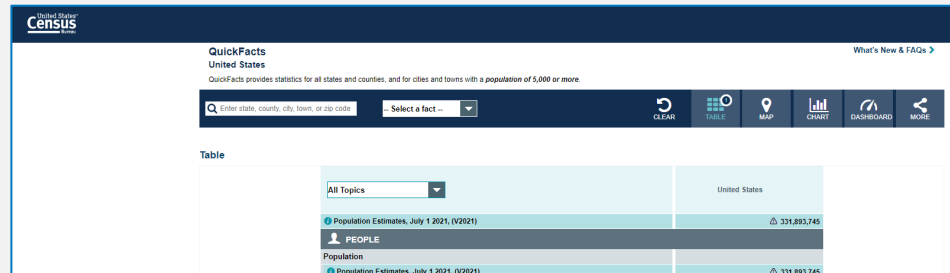
Allows for adjustments to allocation based on population

Takes into account areas/counties that may have relatively low population but require more time to serve each household

Tracked and released by the [U.S. Census Bureau's American Community Survey](#), updated annually\*.

# Geographic Area Served

User-Friendly Tool to  
Access Data



[U.S. Census Bureau QuickFacts – Tables & Map Functions](https://www.census.gov/quickfacts/fact/table/US/PST045221)  
[https://www.census.gov/quickfacts/fact/table/US/PST045221.](https://www.census.gov/quickfacts/fact/table/US/PST045221)

# Energy Costs

## Overview of Data Factor

### Cost of energy for each region served:

- Local/utility data
- [U.S. Census Bureau's American Community Survey](#) data.

### Energy Burden

Measure of the share of a household's income that is spent on energy.

- 6% considered “energy burdened.”

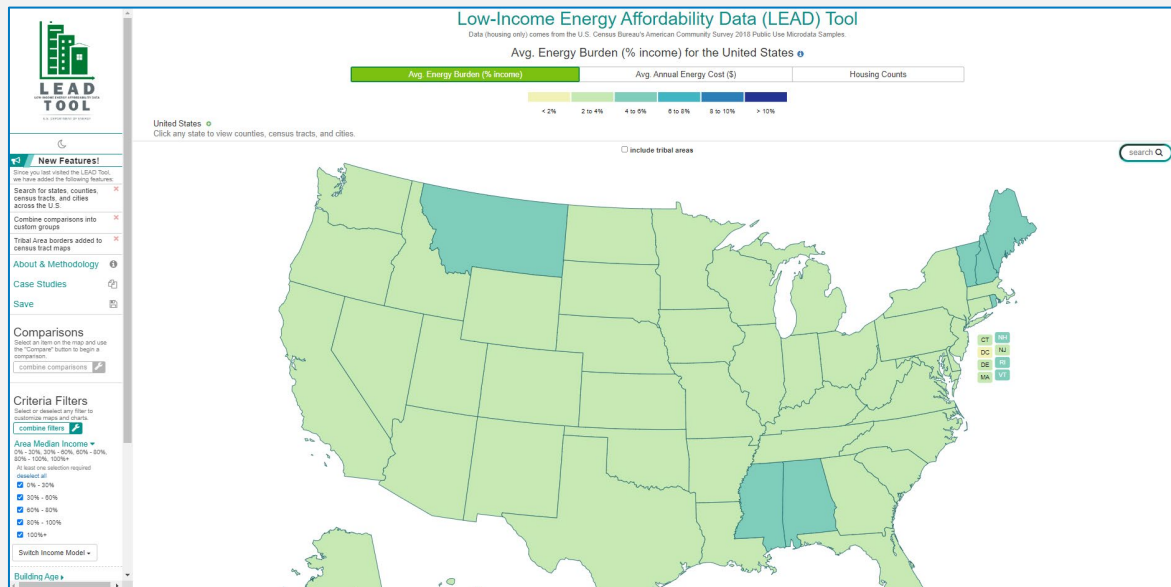
### CONSIDERATIONS

Helps identify regions that may benefit more financially from energy retrofits



# Energy Costs

## Energy Burden



User-Friendly Tool to  
Access Data

[Low Income Energy Affordability Data \(LEAD\) Tool:](https://www.energy.gov/eere/slsc/maps/lead-tool)  
[https://www.energy.gov/eere/slsc/maps/lead-tool.](https://www.energy.gov/eere/slsc/maps/lead-tool)

# Housing Stock Characteristics

- **Age** of housing stock
- Share of homes by **type of heating fuel**.

## CONSIDERATIONS

Helps identify regions that may be in more need of retrofits

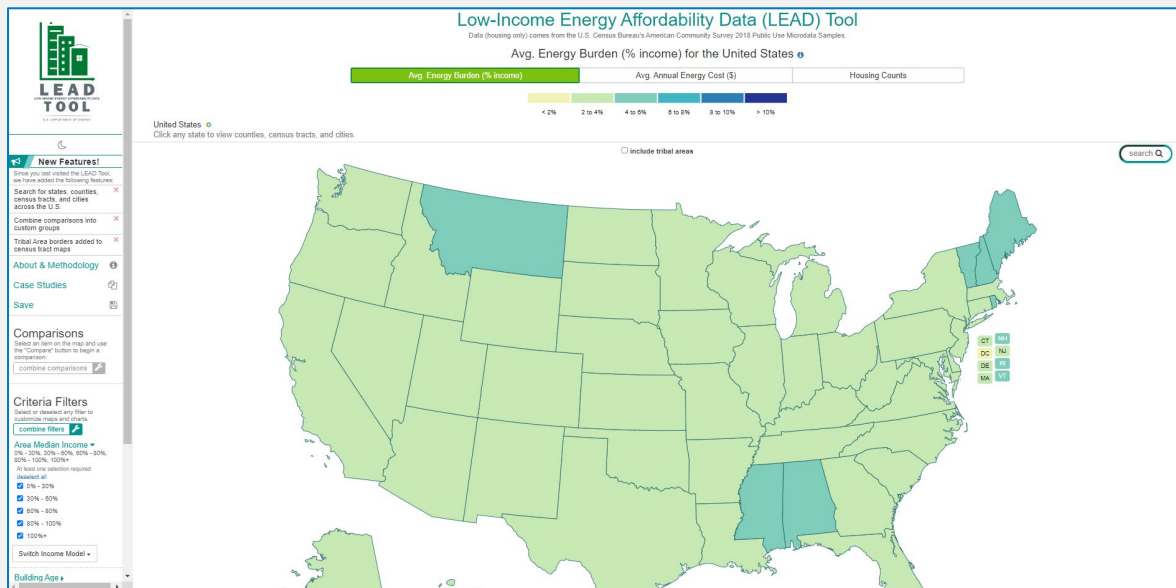
Does not tell you how many may have already been retrofitted

Tracked and released by the [U.S. Census Bureau's American Community Survey](#), updated annually.

Overview of Data  
Factor

# Housing Stock Characteristics

- Age of housing stock
- Share of homes by **type of heating fuel**
- Breakdown by **building type**.



User-Friendly Tool to  
Access Data

[LEAD Tool:](https://www.energy.gov/eere/slsc/maps/lead-tool)

[https://www.energy.gov/eere/slsc/maps/lead-tool.](https://www.energy.gov/eere/slsc/maps/lead-tool)

# Housing Stock Characteristics

Other tools for diving deep into data

## [U.S. Census Bureau—Physical Housing Characteristics for Occupied Units](#)

- American Community Survey (ACS) data tables
- Searchable by state, county, or city.

## [Residential Energy Consumption Survey \(RECS\)](#)

- Detail on residential building energy use
- Searchable by climate region.

## [ResStock™ Residential Building Typologies](#)

- Detail on residential building age, type, and energy use
- Searchable by state and county.

# Other

1. LIHEAP applications approved
2. Subgrantee qualifications/ability to perform
3. Minimum/base allocation
4. Disadvantaged communities.

## CONSIDERATIONS

1 & 2. Easy alignment with WAP implementation (LIHEAP)

3. Helps with equity for low-population areas (minimum)

4. Looks more holistically at high-need communities

# New Tools for Identifying Disadvantaged Communities

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# Considerations

Energy Justice Mapping Tool (DOE)	Climate and Economic Justice Screening Tool (White House)
Combines several burden indicators into one search tool	
Identifies disadvantaged census tracts in a given area	
Definition of DAC based on <i>cumulative</i> total of 36 indicators	Definition of DAC is meeting <i>at least one</i> of eight criteria thresholds
DAC identification is relative to state	Ranking is available relative to United States

# Energy Justice Mapping Tool (DOE): Disadvantaged Communities Reporter

To be considered a disadvantaged community (DAC) within this DOE tool, a census tract must:

1. Have at least 30% of households classified as low-income AND

- 200% FPL and/or 80% AMI.

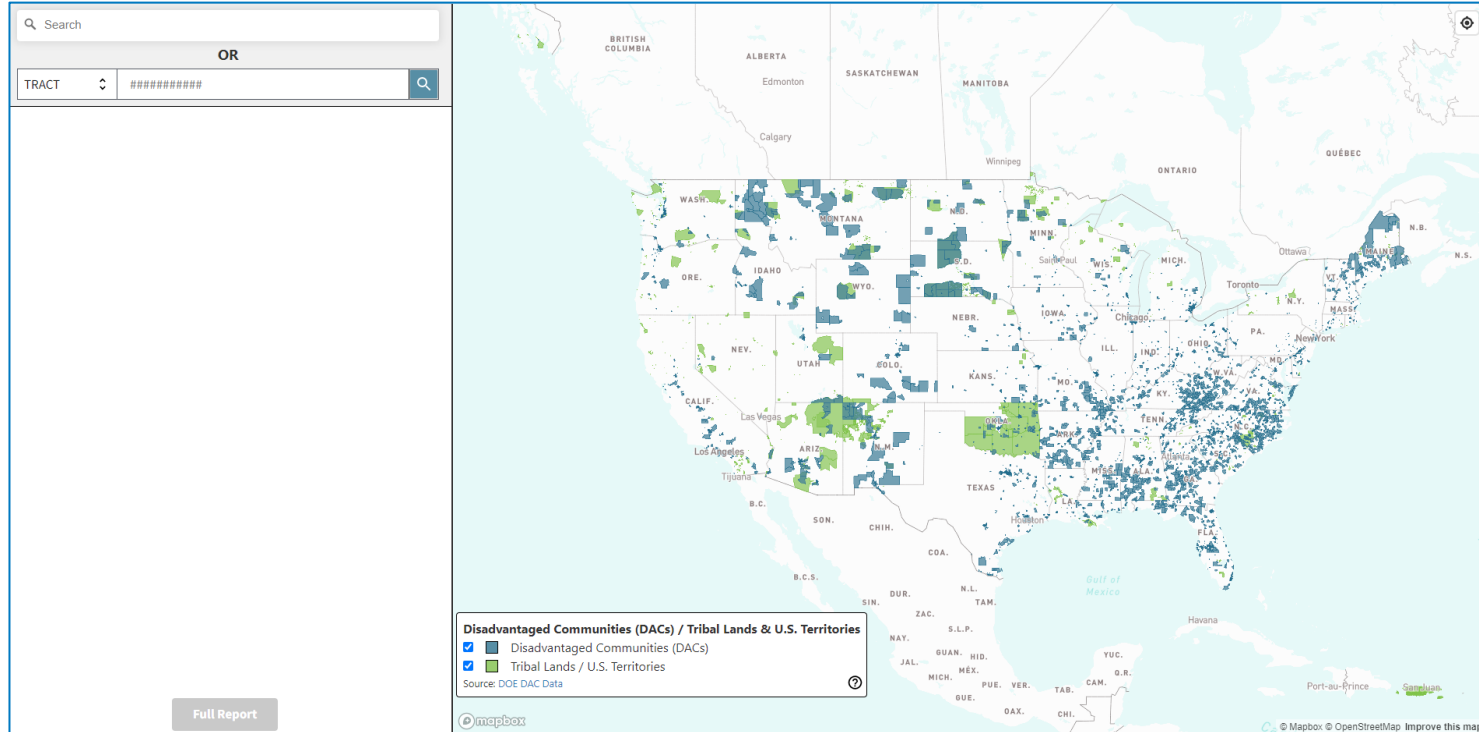
2. Rank in the top 20% of census tracts within a state for the cumulative total of 36 “burden” indicators:

- Fossil dependence, energy burden, environmental and climate hazards, and socio-economic vulnerabilities

NOTE: Federally recognized Tribal lands and U.S. territories are automatically categorized as DACs in accordance with OMB guidance.



# Disadvantaged Communities Reporter



<https://energyjustice.egs.anl.gov/>

# Climate and Economic Justice Screening Tool (White House)

To be considered a DAC within this White House tool, a census tract must meet or exceed thresholds for disadvantage in *at least one of* eight categories:

- Climate change
- Clean energy and energy efficiency
- Clean transit
- Affordable and sustainable housing
- Reduction and remediation of legacy pollution
- Critical clean water and wastewater infrastructure
- Health burdens
- Training and workforce development.

# Climate and Economic Justice Screening Tool (White House)

Climate and Economic Justice  
Screening Tool **BETA**

[Explore the map](#) [Methodology & data](#) [About](#) [Contact](#)

## Explore the map

[Public engagement](#)

Use the map to see communities that are identified as disadvantaged. The map uses publicly-available, nationally-consistent datasets. Learn more about the methodology and datasets that were used to identify disadvantaged communities in the current version of the map on the [Methodology & data](#) page.

Search for an address, city, state or ZIP

Things to know

This tool identifies communities that are marginalized, underserved, and overburdened by pollution. These communities are located in census tracts that are at or above the thresholds in one or more of eight categories of criteria.

Zoom in or search and select to see data about any census tract of interest

<https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5>

# Addressing Equity in WAP Allocation Formulas

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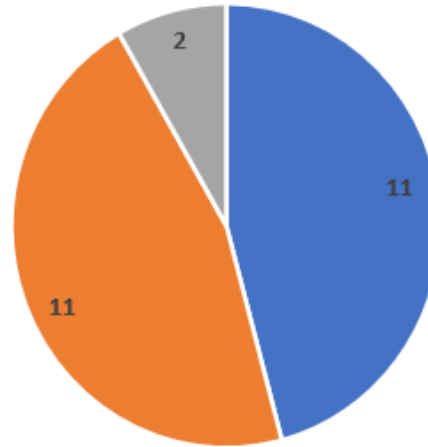
NASCSP Introduction



**The National Association for State Community Services Programs (NASCSPP)  
J40 and WAP Allocations Webinar**

# NASCSP Member Survey – 2Q 2022

Have you revised your Subgrantee allocation formula to adapt to J40?



- No, we are not revising our Subgrantee allocation formula
- We would be interested in hearing from states that have revised
- Yes, we revised our Subgrantee allocation formula for J40

# New Mexico J40 and Energy Burden

## Revised Client Priority Scoring:

### Energy Burden Percentage Points

Between 6% and 10% - 3 points

Between 11% and 15% - 6 points

Between 16% and 20% - 9 points

Over 20% - 12 points

- **New Mexico** updated their client priority scoring in 2022
- Energy Burden used to get 3 points
- In considering J40, they are using a new energy burden priority scoring
- increasing points for higher energy burden above 11%.

## WAP [Memo 094](#) Energy Burden

Due to recent, significant increases in the price of fuels the Department of Energy (DOE) Weatherization Assistance Program (WAP) strongly encourages all Grantee Managers to **review their client priority policies** and, if justified, use high energy burden, as defined in [10 CFR 440.3](#), as a priority criterion for servicing clients.

**How Home Electricity Rates Have Changed Around the U.S.**  
Cents per kilowatt-hour

Search in table Page 1 of 3

State	January 2021	January 2022	Percent Change
Hawaii	\$0.31	\$0.37	23%
Louisiana	\$0.10	\$0.11	17%
New York	\$0.18	\$0.21	15%
Florida	\$0.12	\$0.13	15%
Kentucky	\$0.10	\$0.12	14%
Oklahoma	\$0.09	\$0.10	14%
Massachusetts	\$0.22	\$0.25	13%
New Hampshire	\$0.19	\$0.21	12%
Nevada	\$0.12	\$0.13	12%
Colorado	\$0.12	\$0.14	12%
Maine	\$0.17	\$0.18	11%



**Home Energy Affordability Gap**  
(Published April 2022)

County_Only	Shortfall Calculation -- Less than 50% of Federal Poverty Level			
	Individual HH Shortfall	Number of Households	Aggregate Shortfall	Home Energy Burden
	Adams County	\$2,272	1,219	\$2,770,135
Allegheny County	\$1,611	29,531	\$47,584,301	28.0%
Armstrong County	\$1,851	1,183	\$2,189,617	30.6%
Beaver County	\$1,740	3,122	\$5,432,131	29.2%
Bedford County	\$2,385	882	\$2,103,889	36.9%
Berks County	\$2,124	8,691	\$18,457,228	32.2%
Blair County	\$1,903	3,076	\$5,853,389	31.3%
Bradford County	\$2,266	1,258	\$2,850,471	35.4%
Bucks County	\$2,130	6,766	\$14,414,457	32.6%
Butler County	\$2,004	2,924	\$5,860,305	32.2%
Cambria County	\$2,019	3,630	\$7,329,384	33.3%
Cameron County	\$1,848	122	\$225,413	32.0%
Carbon County	\$2,213	1,409	\$3,117,878	34.6%
Centre County	\$2,064	7,236	\$14,935,303	32.5%
Chester County	\$2,206	5,849	\$12,903,405	33.1%
Clarion County	\$1,926	1,168	\$2,249,950	31.4%
Clearfield County	\$2,360	1,795	\$4,236,973	36.8%
Clinton County	\$2,353	840	\$1,976,162	35.6%
Columbia County	\$2,164	2,025	\$4,382,935	34.7%
Crawford County	\$2,173	1,643	\$3,571,031	34.7%
Cumberland County	\$1,917	3,271	\$6,268,920	31.1%
Dauphin County	\$1,838	6,999	\$12,866,883	29.9%
Delaware County	\$1,884	9,419	\$17,743,454	29.3%
Elk County	\$1,908	507	\$967,265	32.5%
Eric County	\$1,828	7,693	\$14,063,490	30.0%
Fayette County	\$1,948	4,150	\$8,083,644	31.9%
Forest County	\$2,044	130	\$265,727	35.6%
Franklin County	\$2,064	2,031	\$4,192,650	32.2%
Fulton County	\$2,255	246	\$554,792	35.2%
Greene County	\$1,914	842	\$1,611,380	31.2%
Huntingdon County	\$2,293	788	\$1,806,933	36.0%

## Pennsylvania Updating Allocation Formulas with Energy Burden

- **Pennsylvania PAC** voted to include this Energy Burden data into new allocation formula
- Significant changes to allocations
- Will phase in over 6-year period.
- [Home Energy Affordability Gap](#)
- Click on your state for data set

# Addressing Equity in WAP Allocation Formulas

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Pennsylvania Case Study



**pennsylvania**  
DEPARTMENT OF COMMUNITY  
& ECONOMIC DEVELOPMENT

# PA DOE ALLOCATION FORMULA PROCESS

December 8, 2022

Kathy Rulli

## WEATHERIZATION BENEFITS FOR PA RESIDENTS

- DOE and LIHEAP weatherization benefits eligibility based on 200% FPIGs
- 34 WAP Service Providers are Community Action Agencies, City and County Government Agencies, local Housing and Redevelopment Authorities and Non- Profit Agencies
- Typical funding provides WAP to approx. 2,000 households
- PA WAP Service Providers also provide LIHEAP emergency heating system, clean and tune, deferral program and recently cooling services to approx. 10,000 households

## PA OLD ALLOCATION FORMULA DESCRIPTION

- The Department continues to use the historical formula for subgrantees that was implemented in 2007 which establishes a capacity framework to deliver WAP. This formula of funding establishes a baseline capacity in order for each agency to maintain a certified workforce, conduct WAP according to the required SWS and adjust to any potential funding lapses. This formula is based on fifty percent (50%) of the funds utilizing each agency's service area percentage of low-income population to the state total low-income population at 200% of the Federal Poverty Guidelines; thirty percent (30%) on the heating degree days to the state total; and twenty percent (20%) of the funds on the subgrantees' established capacity level.

## PA NEW ALLOCATION FORMULA DESCRIPTION

- Phasing in the recommended formula of updated HDD and FPIGs by PA county based on 5-year averages and including a third portion which utilizes high energy burden data from the Home Energy Affordability Gap data found at Fisher, Sheehan and Coltan (FSC) website.
- Formula was under review before Justice40 was established but we do believe once the full formula is utilized, PA will be on target with a way to meet the requirements of providing even more than 40% of benefits of climate investments to households in disadvantaged communities.

## HOME ENERGY AFFORDABILITY DATA

- [FSC's HEAG - Affordability Gap Data \(homeenergyaffordabilitygap.com\)](http://homeenergyaffordabilitygap.com)
- Home Energy Affordability
- State data by county available and Fact Sheets per state

# HOME ENERGY AFFORDABILITY GAP DASHBOARD -- PENNSYLVANIA 2021 VERSUS 2020

## **AVERAGE DOLLAR AMOUNT BY WHICH ACTUAL HOME ENERGY BILLS EXCEEDED AFFORDABLE HOME ENERGY BILLS FOR HOUSEHOLDS BELOW 200% OF POVERTY LEVEL**

2020: \$1,002 per household vs **2021: \$1,102 PER HOUSEHOLD**

## **AVERAGE TOTAL HOME ENERGY BURDEN FOR HOUSEHOLDS BELOW 50% OF POVERTY LEVEL**

2020: 29% of household income vs **2021: 30% OF HOUSEHOLD INCOME**

## **PERCENT OF INDIVIDUALS BELOW 100% OF POVERTY LEVEL**

2020: 12% Of all individuals vs **2021: 12% OF ALL INDIVIDUALS**

## **NUMBER OF AVERAGE LOW-INCOME HEATING/COOLING BILLS COVERED BY FEDERAL HOME ENERGY ASSISTANCE**

2020: 169,496 bills covered vs **2021: 172,651 BILLS COVERED**

## **PRIMARY HEATING FUEL (2021):**

HOMEOWNERS - NATURAL GAS \*\*\* TENANTS - NATURAL GAS



## CONCLUSIONS

- PA Prioritization of clients also includes **high energy burden** and high energy use for ranking to receive services
- DOE Annual Allocation formula phases in new statistics
- DOE BIL Allocation formula uses updated formula of 50% poverty levels, 25% HDD and 25% high energy use

Kathy Rulli, WAP Chief, Center for Community Services

717-214-5494

# Questions and Discussion

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# Thank you!

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[www.nrel.gov](http://www.nrel.gov)

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