MIT Climate Policy Center

POLICY BRIEF

Energy Poverty is Shifting in America:

Changing LIHEAP Can Help

JANUARY 2026

Recent funding allocations under the Low Income Home Energy Assistance Program (LIHEAP) are not reaching the Americans who need the greatest assistance with their energy bills. Based on formulas designed nearly forty years ago, when the weather in the US was notably different, LIHEAP allocations heavily skew towards cold-weather states while energy poverty is growing in warm-weather states.

Policy Considerations

- To lift every American household out of energy poverty, the annual LIHEAP appropriation (the size of the whole pie) would need to exceed $17.9 billion.
- If Congress wishes to target LIHEAP funds to those households who need it most, the funding allocation formula (the size of the pie slices) could be changed to limit the maximum energy burden faced by any household.
- The recent practice of overriding the funding allocation formula through the appropriations process is preventing LIHEAP funds from going to states with the highest energy poverty.
- For LIHEAP funds to follow the geographic shifts in energy poverty, the existing "hold-harmless" provisions in the LIHEAP statute would need to be removed during reauthorization.
- LIHEAP efficiency could be improved by conducting oversight of the existing requirement that states provide the greatest assistance to households with the highest energy burdens (42 USC §8624(b)(5)).

The Policy Problem

Nearly one in three households in the US reports experiencing "energy poverty," or the inability to meet their basic energy needs due to financial constraints. Commonly defined as spending more than 6% of a household's annual income on energy services, our research estimates that 24.5 million households are living in energy poverty. As the global climate changes, we can expect a decrease in the demand for household heating and an increase in the demand for household cooling, especially in the South.

Although Congress typically appropriates more than $3.5 billion to the Department of Health and Human Services (HHS) each year to administer LIHEAP ($6.1B in FY23), the program would need $17.9B to lift every American household out of energy poverty.

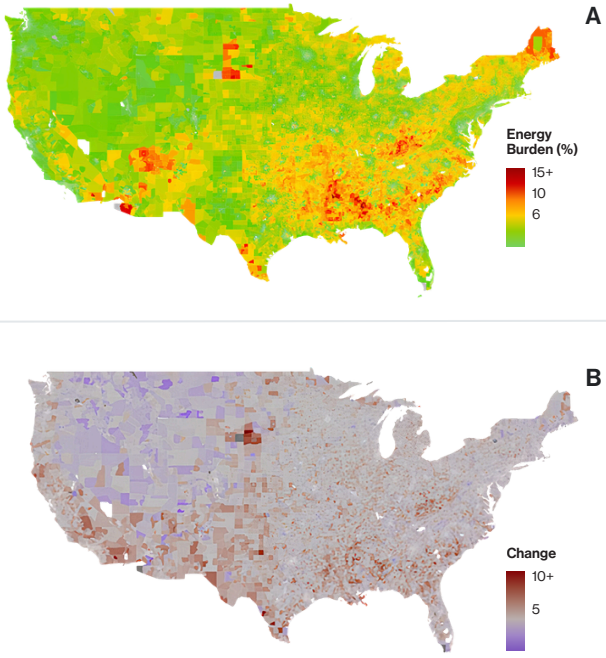

Figure 1. (**A**) Average Household Energy Burden between 2015 and 2020 by census tract. (**B**) Change in average household energy burden from 2015 to 2020 by census tract.

The Findings

Our analysis shows that energy burdens are highest in the Southeast and Southwest, and across parts of Appalachia and the Great Plains, as shown in Figure 1A, while Figure 1B shows the increase in energy burden is concentrating in these same areas. Despite changes in the 1984 LIHEAP reauthorization to account for population and updated energy needs, two "hold-harmless" provisions are skewing the formula and sending more funds to states that no longer have the greatest energy burdens while reducing funds available to states experiencing increases in energy burdens.

Additionally, since 2009, Congress has overridden the current formula through appropriations bills and has required that a majority of funds be allocated according to the "old" formula that is more favorable to cold-weather states. Figure 2 shows the distribution of 2020 LIHEAP funds allocated to energy poor households and highlights this imbalance.

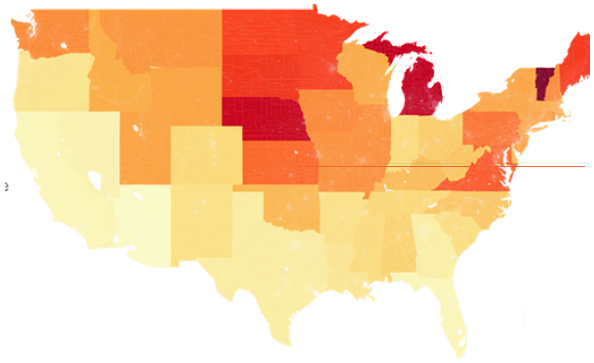

Figure 2. Map of federal allocations of LIHEAP in 2020.

We designed an optimized LIHEAP allocation formula to demonstrate that available funds could be distributed more equitably and reduce the maximum energy burden faced by any household in the US. With Congressiona direction, HHS could mimic this optimized allocation formula using the data they already collect (state-level data on population, percent of the population below the poverty level, heating degree days, cooling degree days, average home energy expenditures, average home energy expenditures for heating, and average home energy expenditures for cooling) and assign weights to construct allocations. This would result in a more balanced distribution of funds towards the greatest need and would lower household energy burdens in the most fair way, as shown below in Figures 3A and 3B.

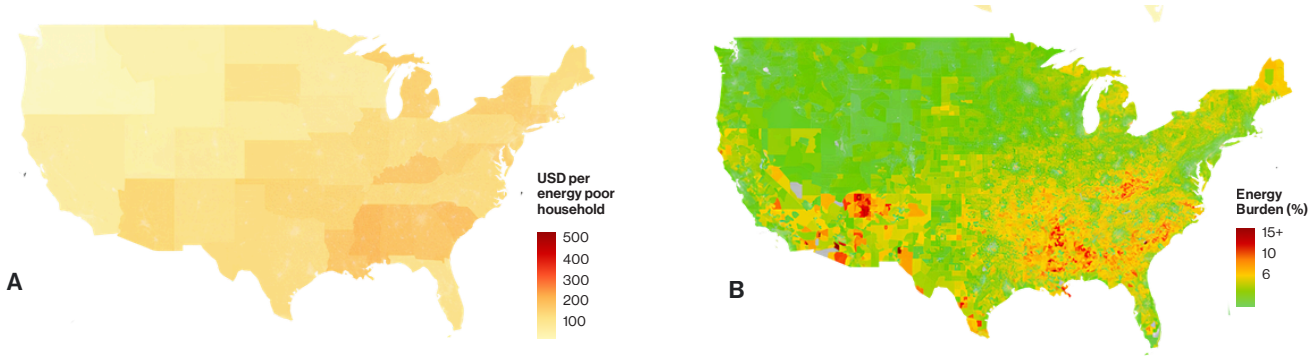

Figure 3. (A) Map of optimized allocations of funds to address energy burden equally across the United States, given the same budget as LIHEAP in 2020. Optimized in this scenario is defined by providing enough funds to every state in the United States such that the maximum energy burden experienced by any household is equal across the country. **(B)** Map of average energy burden in each census tract if dollars are allocated in a "peak-shaving" manner. In this scenario, federal dollars are allocated to each state so that the maximum energy burden that any household experiences is equivalent across the country. In this map, the. Maximum energy burden experienced by any household would be 20.3%.

The Research

We produced a novel approach for estimating household energy burden across the US based on household demographic and geographical information. We calculated the change in household energy burden from 2015 to 2020 and then compared these estimates to LIHEAP allocations to observe how these funds align with the spatial distribution of energy poverty. We also determined how a given amount of LIHEAP funds could reduce the maximum energy burden experienced across the contiguous US if allocated according to greatest need.

Source: Batlle, C., Heller, P., Knittel, C.R., Schittekatte, T. (2024). US federal resource allocations are inconsistent with concentrations of energy poverty. Science Advances 10, DOI:10.1126/sciadv.adp8183

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