



Energy Costs and Burdens in Vermont: Burdensome for Whom?

A report by the Institute for Energy and the Environment at the Vermont Law School
Funding for the report was provided by a contribution from VLITE

Recommendations for Vermont Legislature:

1. Increase funding for low-income weatherization.
 - a. Gradually increase the Gross Receipts Tax from the current 0.5% to 2% or higher.
2. Continue supplementing federal programs.
 - a. LIHEAP must be adequately funded.
3. Mandate energy efficiency labeling for homes.
 - a. Require property sellers and landlords to disclose building energy performance.

What is Energy Burden?

- Energy burden is defined as *expenditure on energy as a percentage of income*.
- Three variables are involved in determining a household's energy burden:
 - The quantity of energy consumed
 - The price of energy
 - The income of the household

$$\begin{aligned} (\text{Quantity of Energy Consumed}) \times (\text{Price of Energy}) &= \text{Spending on Energy} \\ (\text{Spending on Energy}) \div \text{Income} &= \text{Energy Burden} \end{aligned}$$

What does it mean to be Fuel Poor?

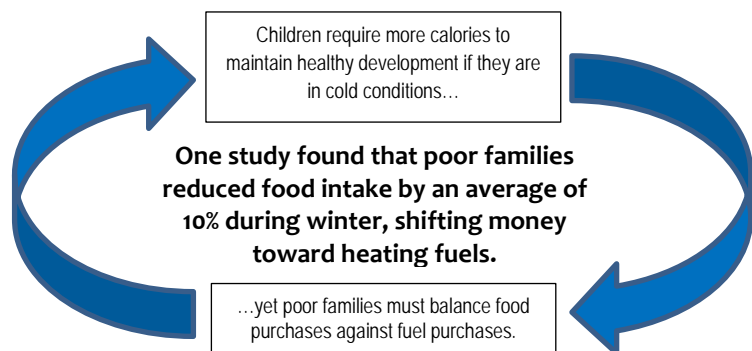
Fuel Poor are households that spend more than 10% of their monthly income on energy services.

- Approximately 125,000 Vermonters were fuel poor in 2012, up from 71,000 in 2000.
- This increase of 76% means that now 1 in 5 Vermonters are fuel poor.
- Vermont households in the bottom decile with regard to income income spend an average of 28% of total income on residential energy costs.

People who are fuel poor have higher risk for the following conditions:

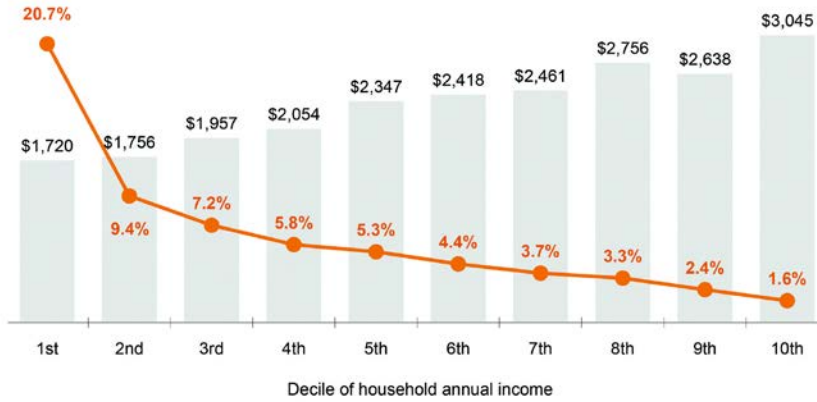
- Stroke
- Heart attack
- Pulmonary embolism
- Influenza
- Pneumonia
- Asthma
- Arthritis
- Depression
- Anxiety
- Accidents in their home

A VICIOUS CYCLE:



Between 1999 and 2011, Vermont averaged 172 “excess winter mortalities” attributable to fuel poverty per year – more than double the rate of deaths from automobile and other transportation accidents.

Average annual expenditures for all energy used in the household in VT, by decile of household income – 2000 (2013\$)

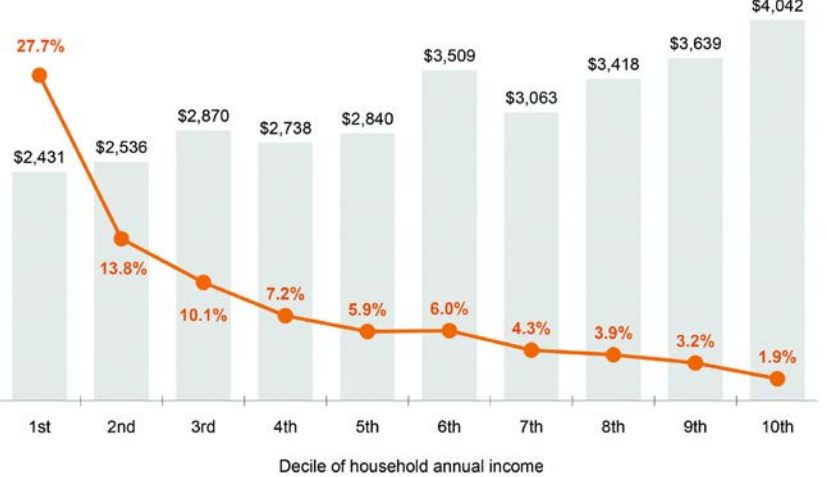


In 2000, only the lowest-income decile had, on average, an energy burden sufficient to qualify as fuel poverty, although some households in the 2nd and 3rd deciles met the criteria for fuel poverty (chart shows averages).

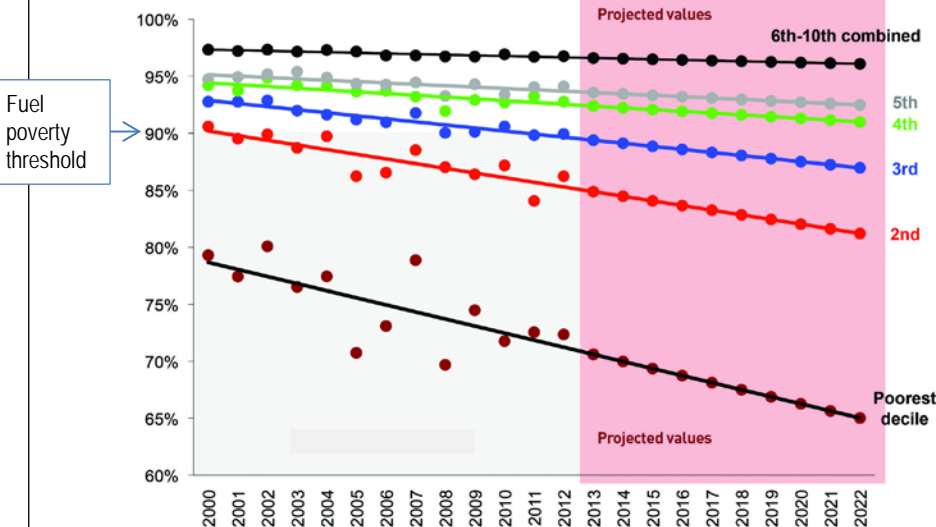
By 2012, however, the first, second and third deciles were all in fuel poverty, based on the average expenditures for energy in those households.

In 2012, the official U.S. poverty line for a family of four with two children was \$23,624 – which falls just above the 2nd decile income level in the chart to the right. (Poverty level adjusted to reflect 2013\$ used in chart.)

Average annual expenditures for all energy used in the household in VT, by decile of household income – 2012 (2013\$)



Average income remaining after spending on all energy, as a percentage of total household income, by decile, with a 10-year projection.



In 2000, only the 1st decile was in fuel poverty. The 2nd decile crossed into fuel poverty in 2001. The 3rd decile crossed the fuel poverty threshold in 2011.

The chart to the left projects these trends 10 years into the future. If current trends continue, the 4th decile will cross the fuel poverty threshold in 2029.

4th decile income in 2013\$: \$33,078-\$42,980 (2012)