

FACT SHEET

# Energy Insecurity in the United States

By Dr. Diana Hernández, Qëndresa Krasniqi, and Alexandra Peek

## What Is Energy Insecurity?

Energy insecurity (EI) is defined as the inability to adequately meet household energy needs. EI has three dimensions:<sup>1</sup>



### Economic

A disproportionate share of household income is allocated to utility expenses (i.e., energy burden).



### Physical

Housing deficiencies and inefficiencies impact thermal comfort, induce harmful environmental exposure, and/or increase energy costs.



### Coping

Households use adaptive strategies to manage and cope with the physical and economic hardships associated with EI.

## Prevalence

Among all US households in 2020, 33.53 million experienced some form of EI.<sup>2</sup> More specifically:

- 24.61 million reduced or went without food or medicine to pay for energy costs.
- 12.36 million received disconnection notices.
- 6.03 million were unable to use an air-conditioner.<sup>3</sup>
- 12.20 million left their homes at unhealthy temperatures to avert high energy bills.
- 5.08 million were unable to use heating equipment.<sup>4</sup>

## Unequal Distribution

Although EI is widespread in the US, it is not equally distributed across all populations; disparities exist by race and ethnicity, income and wealth, and housing characteristics.<sup>5</sup>

**Race and ethnicity.** In 2020, Black and Indigenous populations were more than twice as likely as other groups to experience EI. Compared to 23 percent of white households, 52 percent of Black and American Indian or Alaska Native households experienced some form of EI (see Figure 1). Nearly half (47 percent) of Hispanic households experienced some form of EI compared to 25 percent of non-Hispanic households.<sup>6</sup>

**Income and wealth.** More than half (51 percent) of households making less than \$20,000 a year reported experiencing energy insecurity in 2020. As Figure 1 shows, this percentage decreases steadily as income increases.<sup>7</sup> For example, households earning less than \$20,000 a year were seven times more likely to experience EI than those making \$100,000 a year or greater.<sup>8</sup>

**Housing characteristics.** Renters were twice as likely as owners to experience EI—41 versus 20 percent. Furthermore, 47 percent of households living in poorly insulated homes, 51 percent of those using portable electric heaters as a main heating source, and about 40 percent of those using inefficient cooling (i.e., swamp coolers and window A/C units) experienced some form of EI.

<sup>1</sup>Diana Hernández, “Understanding ‘Energy Insecurity’ and Why It Matters to Health,” *Social Science & Medicine* 167 (October 1, 2016): 1–10, <https://doi.org/10.1016/j.socscimed.2016.08.029>.

<sup>2</sup> US Energy Information Administration (EIA), “2020 Residential Energy Consumption Survey,” accessed May 26, 2023, <https://www.eia.gov/consumption/residential/data/2020/>.

<sup>3</sup>Includes inability to use air-conditioning equipment at any time during the previous 12 months because equipment was broken and household could not have it repaired or because of an electricity disruption due to lack of payment.

<sup>4</sup>Includes inability to use main heating equipment at any time during the previous 12 months because equipment was broken and household could not have it repaired or because of an electricity, natural gas, or bulk fuel disruption due to lack of payment.

<sup>5</sup> EIA, “2020 Residential Energy Consumption Survey.”

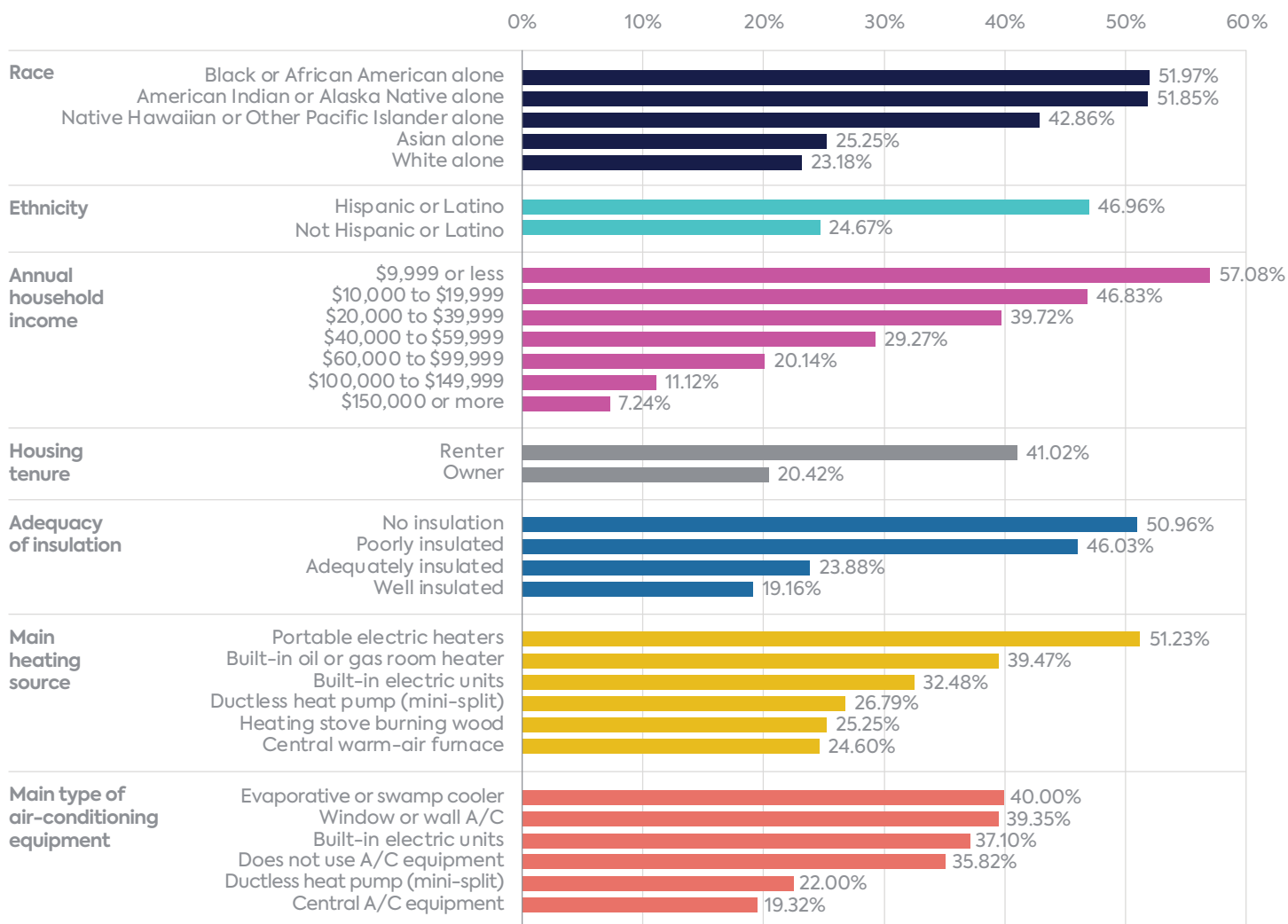
<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup>Carolyn Hronis and D Ross Beall, “Who’s Energy Insecure? Results from the 2020 Residential Energy Consumption Survey (RECS),” n.d., 16.



**Figure 1: US households reporting some form of energy insecurity (2020)**



Source: US Energy Information Administration, Residential Energy Consumption Survey (RECS).

## Policy Recommendations

Addressing EI requires improving the physical condition of housing and reducing cost burdens. Specific measures to be taken include:

- Prioritize groups most impacted by EI, including low-income households and Black, Indigenous, Latino, and other People of Color, for energy efficiency and housing decarbonization benefits.
- Prioritize rental properties in housing improvement initiatives.
- Improve insulation and upgrade heating and cooling units with high-efficiency, dual-function options.
- Link eligible households to bill assistance programs such as the Low Income Home Energy Assistance Program (LIHEAP) through more aggressive outreach and engagement efforts to increase awareness among populations heavily impacted by EI, and streamline the LIHEAP application process.
- Increase household income via higher living wages and cross-enrollment in safety net programs such as rental assistance, Supplemental Nutrition Assistance Program, and Medicaid.
- Design tiered utility rate structures for low-income groups such as percent of income payment plans.

