

The Costs of Climate Change are Unequal Across America

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Climate change is already costing American households an average of \$901 annually through increased insurance premiums, premature deaths from extreme weather and wildfire smoke, and higher energy bills. These costs fall disproportionately on lower-income households and residents of disaster-prone regions, with 10% of counties experiencing costs of climate change of nearly \$1,325 per household per year.

Policy Considerations

- Climate change has already increased costs for US households, averaging \$901 annually, and these increases are expected to accelerate without climate mitigation.
- Home insurance and extreme weather, not gradual warming, have driven the bulk of the current cost increases. Therefore, policies should prioritize disaster preparedness and response alongside emissions reduction.
- Some regions (the Gulf Coast, Florida, Pacific, and Mountain) are facing 2-3 times higher costs than the national average and need tailored adaptation support and federal disaster assistance.
- Lower-income households bear higher relative burdens from climate change, and climate policies that do not account for this difference risk exacerbating their burden.

The Policy Problem

While the future impacts of climate change are the subject of considerable debate, it is clear that climate change is already increasing costs on US households today. Increasingly frequent extreme weather events and rising temperatures are driving up home insurance premiums, mortality risks, and energy bills, but these costs are not felt equally by all Americans. Lower-income households spend more of their budgets on necessities like energy and housing than wealthier Americans, making them more vulnerable to climate-driven price increases. Geographic differences also compound these inequities, with the Gulf Coast, Florida, and western states experiencing greater exposure to hurricanes, wildfires, and heat. Policymakers need comprehensive assessments of today's costs of climate change, and they need to know who is shouldering these costs, in order to design policies that protect the most vulnerable Americans while addressing long-term risks.

The Findings

We find annual household costs have increased due to climate change by \$571 over the last 20-30 years. The hardest-hit 10% of US counties have experienced costs increases of \$888 per year. Our findings show that natural disasters and extreme events, not gradual temperature change, account for most of the cost increases observed so far. Geographically, the Pacific and Rocky Mountain regions bear the highest overall burdens (shown in Figure 1), followed by the Gulf Coast and Florida, while the Northeast and Midwest regions have seen smaller cost increases.

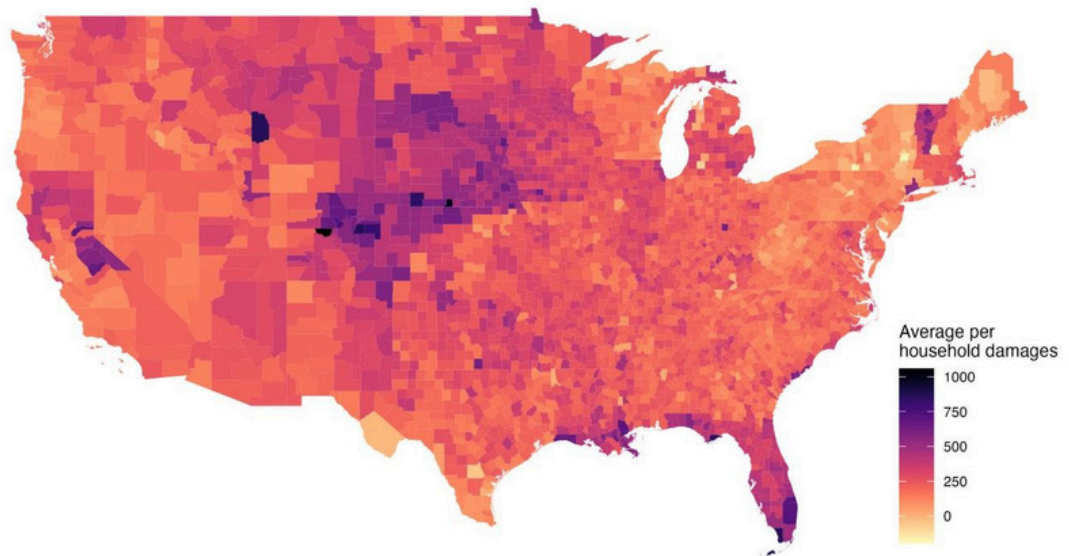


Figure 1. Household cost increases due to climate change (by county)

The bulk of the cost increase is driven by home insurance premiums, which have grown by an average of \$250, with some counties in the Gulf Coast and Rocky Mountain regions seeing insurance premiums increase by more than \$750. Mortality from wildfire smoke is the second largest contributor, adding another \$140 per household, and is concentrated in western states. Commercial and industrial firms have also experienced increased insurance costs, and these costs are assumed to be passed through to consumers, averaging \$102 per year. Energy bills show modest increases of \$3-\$14 per household, since higher cooling demand partially offsets reduced heating needs, though this differs greatly across the country.

The Research

We assembled county-level climate exposure data spanning 1960-2024, including temperature records, wildfire smoke particulate matter, and damage estimates from 13 climate-related hazards. Using machine learning models trained on nationally representative household surveys, we predicted how observed climate changes affect energy costs across census tracts.

For insurance costs, we combined mortgage escrow data with climate risk projections to estimate premium increases that are tied to increasing disaster frequency. Mortality impacts were estimated using known relationships between temperature, particulate matter exposure, and death rates. For costs related to natural disasters, we provide two estimates attributing different amounts of weather variability to climate change. All monetary values reflect current dollars and account for regional variation in exposure, demographics, and adaptive capacity.

Source: Clausen, K.A., Knittel, C.R., and Wolfram, C. (2025). *Who Bears the Burden of Climate Inaction?* Working Paper. MIT Center for Energy and Environmental Policy Research.

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