Impacts of Extreme Heat: Rural Communities

46 million rural Americans <u>face mounting risks</u> from temperature extremes that threaten workforce productivity, raise business operational costs, and strain critical public services. Though extreme heat is often portrayed in research and the media as an urban issue, <u>almost every state</u> in the contiguous U.S. has rural communities with above-average rates of vulnerability to extreme heat. To protect rural America, Congress **must address extreme** heat's **impacts by repairing rural health systems, strengthening the preparedness of rural businesses, and** hardening rural energy infrastructure.

Extreme heat exacerbates rural communities' unique health vulnerabilities

On average, Americans living in rural areas are twice as likely as those in urban areas to have pre-existing health conditions, like heart disease, diabetes, and asthma, that make them more sensitive to heat-related illness and death. Further compounding the risk, rural places also have larger populations of <u>underinsured and</u> <u>uninsured people</u> than urban areas, with 1 in 6 people lacking insurance.



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Limited healthcare infrastructure in rural places

worsens these vulnerabilities. Rural areas have <u>higher shortages of healthcare professionals</u> who provide primary care, mental health, and dental services than urban areas. Over the last decade, <u>100 rural hospitals</u> <u>have closed</u>, and hundreds more are vulnerable to closure. Finally, many rural communities do not have public health departments, and those that do are underfunded and understaffed. **Because public health systems and healthcare professionals are the first responders to extreme heat, rural residents are severely underprepared.**

Congress should **provide flexible resources and technical assistance to rural hospitals** to prepare for emerging threats like extreme heat. Additionally, Congress should continue to **enable the U.S. Department of Agriculture and the Department of Health and Human Services to provide loans or grant assistance** to help rural residents retain access to health services and improve the financial position of rural hospitals and clinics. And because Medicaid expansion <u>correlates with better rural hospital financial performance and fewer closures</u>, Congress should **invest in Medicaid to protect rural healthcare access**.

Extreme heat puts rural businesses and workers at risk

Rural economic health relies on the <u>outdoors</u> (e.g., <u>recreation tourism</u>) and <u>outdoor labor</u> (e.g., <u>agriculture</u> and <u>oil and gas extraction</u>). Extreme heat in many of these places makes it dangerous to be outside, which impacts worker productivity and local business revenues. Indoor workers in facilities like <u>manufacturing plants</u>, <u>food</u> <u>processing</u>, and <u>warehouses</u> also face heat-related safety threats due to the presence of heat-producing machines and poorly ventilated buildings with limited cooling. These facilities are rapidly growing components of rural economies, as these sectors employ almost 1 in 5 rural workers.

FAS@FAS.ORG @SCIENTISTSORG Simple protections like water, rest, shade, and cooling <u>can improve productivity</u> and <u>generate returns on investments</u>. But small-to-medium rural enterprises need support to adopt affordable cooling systems, shade and passive cooling infrastructure, and worker safety measures that reduce heat-related disruptions. Congress should help



rural businesses reduce heat's risks by appropriating funding to support workplace heat risk reduction and practical training on worker protections. Additionally, Congress should require OSHA to finalize a federal workplace heat standard.

Extreme heat threatens rural energy security

When a power outage happens during a severe extreme heat event, the chance of heat-related illness and death <u>increases exponentially</u>. Extreme heat <u>strains power infrastructure</u>, increasing the risk of power outages. This risk is particularly acute for rural communities, which have <u>limited resources</u>, <u>older infrastructure</u>, and <u>significantly</u> <u>longer</u> waits to restore power after an outage.

Weatherized housing and indoor infrastructure are one of the key protective factors against extreme heat, especially during outages. Yet rural areas often have a higher proportion of older, substandard homes. Manufactured and mobile homes, for example, compose <u>15% of the rural housing stock</u> and are the one of the <u>most at-risk housing types</u> for extreme heat exposure. When the power is on, rural residents <u>spend 40% more of their income on their energy bills</u> than their urban counterparts. Rural residents in manufactured housing spend an alarming 75% more. Energy debt can force people to choose between paying for life-saving energy or food and key medications, compounding poverty and health outcomes.

To drive the energy independence and economic resilience of rural America, Congress **should support investments in energy-efficient and resilient cooling technologies, weatherized homes, localized energy solutions like microgrids, and grid-enhancing technologies.**

The Federation of American Scientists: Who We Are

At the <u>Federation of American Scientists</u> (FAS), we envision a world where the federal government deploys cutting-edge science, technology, ideas, and talent to solve and address the impacts of extreme heat. We bring expertise in embedding science, data, and technology into government decision-making and a strong network of subject matter experts in extreme heat, both inside and outside of government. Through our <u>2025 Heat Policy</u> <u>Agenda</u> and broader policy library, FAS is positioned to help ensure that public policy meets the challenges of living with extreme heat.

CONSIDER FAS A RESOURCE FOR...

- » Understanding evidence-based policy solutions
- » Directing members and staff to relevant academic research
- » Connecting with issue experts to develop solutions that can immediately address the impacts of extreme heat

We are tackling this crisis with initiative, creativity, experimentation, and innovation, serving as a resource on environmental health policy issues. Feel free to always reach out to us:

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