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A Gathering Storm:

Why The Growth in Climate Hazards Matters for Household Financial Security

FINANCIAL SECURITY PROGRAM

aspen institute

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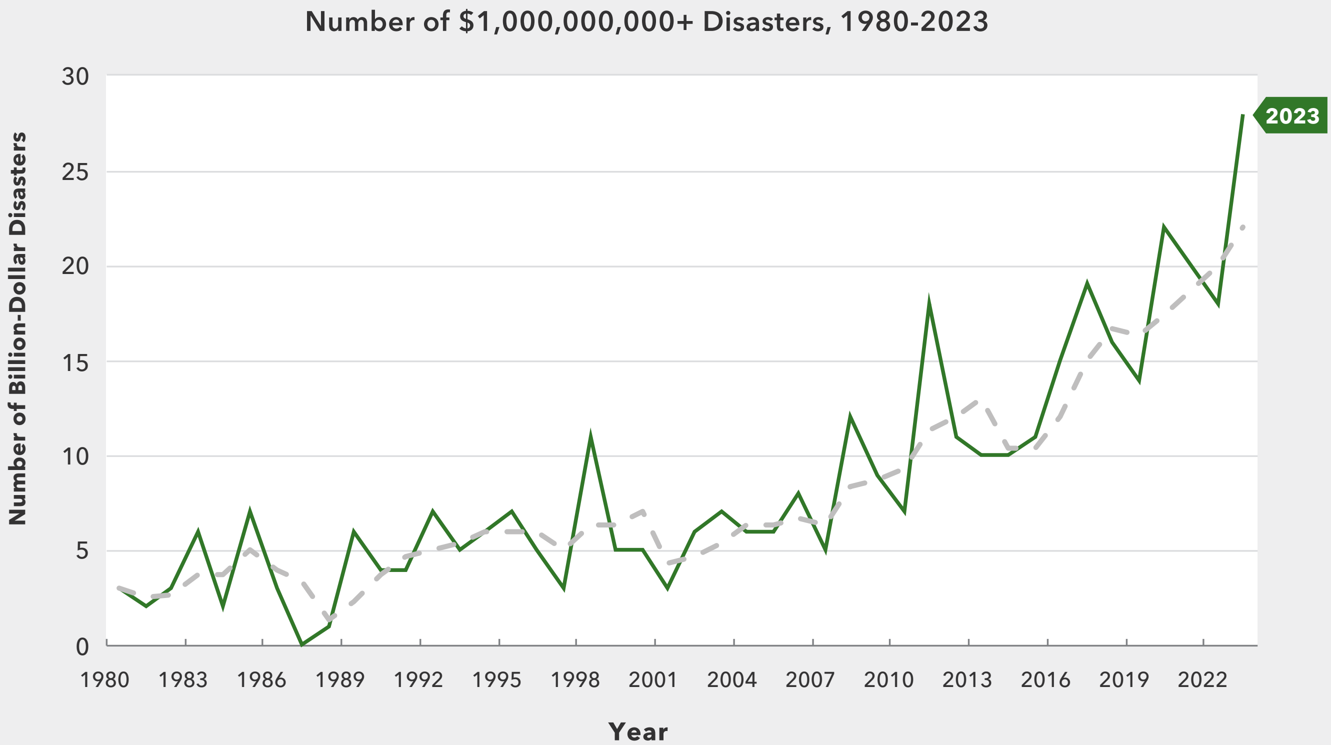
ABOUT THE ASPEN INSTITUTE FINANCIAL SECURITY PROGRAM

The Aspen Institute Financial Security Program's (Aspen FSP) mission is to illuminate and solve the most critical financial challenges facing American households and to make financial security for all a top national priority. We aim for nothing less than a more inclusive economy with reduced wealth inequality and shared prosperity. We believe that transformational change requires innovation, trust, leadership, and entrepreneurial thinking. Aspen FSP galvanizes a diverse set of leaders across the public, private, and nonprofit sectors to solve the most critical financial challenges. We do this through deep, deliberate private and public dialogues and by elevating evidence-based research and solutions that will strengthen the financial health and security of financially vulnerable Americans. To learn more, visit AspenFSP.org, join our mailing list at http://bit.ly/fspnewsletter, and follow @AspenFSP on X and LinkedIn as The Aspen Institute Financial Security Program.

Families Face Increasing Risks to Their Finances As Extreme Weather and Natural Disasters Become More Prevalent

As extreme weather events and natural disasters* become more frequent and widespread nationwide, families must cope with recurring financial shocks that chip away at their financial security and erode their ability to build and sustain wealth, especially in the face of future climate hazards. Put simply, household financial security in the United States cannot be achieved without addressing the challenges that these weather events pose. The global average temperature is on track to exceed 1.5 degrees Celsius above pre-industrial levels by 2027, increasing the frequency and intensity of weather events related to climate change.[1] In addition to discrete *climate disasters* such as hurricanes, floods, and wildfires, there are also *climate stressors* that occur over a longer time horizon—such as drought, extreme heat, and sea-level rise—all of which can result in lost household income, increased expenses, and loss of assets. Many U.S. communities—and households—are already facing large costs from these *climate hazards* and the risks, exposure, and reach of their impacts are growing and will undermine more communities nationwide:

Climate Hazards Are Becoming More Commonplace in the U.S.



The dotted line represents the average number of billion-dollar disasters in a given three-year period.
Source: *NOAA National Centers for Environmental Information.*

* Throughout this brief, we refer to extreme weather and natural disasters that have intensified and become more frequent as a result of climate change as "climate hazards," which encompass the physical impacts of climate stressors and disasters.

- The frequency of billion-dollar climate disasters has substantially increased since 1980.[2] From 2019 to 2023 alone, there were 102 weather-related disasters in the United States that collectively cost more than $603 billion and resulted in nearly 2,000 deaths.[3] The most recent annual data show that 2023 had 28 billion-dollar events, the highest number measured annually to date.[4]
- Among "high-loss" states– the 11 states that experience an above-average loss of buildings, population, and agricultural value due to climate events—the average annual loss per state was over $632 million in 2021. Two in five people in the U.S. live in these high-loss states, including regularly referenced states such as California, Florida, and Louisiana, as well as others, including Illinois, Oklahoma, and Texas.[5]
- Nearly a third of the nation's housing stock–roughly 35 million homes—are "exposed to high-risk from natural disasters."[6]
- In 2022, it is estimated that 1 in 70 U.S. adults were displaced from their home due to a natural disaster.[7] More than 7 in 10 of those displaced reported damage to their possessions or property, and between 39 percent to 53 percent reported that the damage was moderate or worse.[8]

As extreme weather events and natural disasters become more frequent and widespread nationwide, families must cope with recurring financial shocks that chip away at their financial security and erode their ability to build and sustain wealth.

Frequent Climate Stressors and Disasters Diminish Household Financial Security, at Nearly All Income Levels

Communities across the nation are exposed to multiple types of climate threats that make it more difficult to make ends meet and move forward on financial goals.[9] The U.S. Treasury Department finds that approximately 53 percent of all U.S. counties are facing elevated exposure to at least one climate hazard of flooding, wildfire, or extreme heat.[10] Moreover, the Harvard T.H. Chan School of Public Health found that **78 percent of U.S. adults were personally affected by at least one extreme weather event between 2017 and 2022.**[11] For households and communities that have fewer assets to begin with—including people in the bottom half of the wealth and income distributions; those living in rural regions; Black, Indigenous, and Hispanic households; and people living with disabilities and those with chronic conditions—recovery from weather events can be particularly difficult.

Without the personal resources and additional supports such as insurance and government assistance to remain resilient in the face of these financial shocks, families may face financial instability.[12] Due to widespread financial instability in the United States, many people already struggle to manage even a modest disruption to their finances—whether it is an unplanned car repair or an inability to go into work because of a child's sickness—much less the massive economic upheaval that climate change can unleash. In fact, only half of U.S. adults (51 percent) believe it is possible and not difficult to come up with emergency funds in 30 days.[13] More than half of households do not have the buffer of six weeks of income needed to overcome a simultaneous income and expense shock, something that could easily occur as a result of a climate shock.[14] And as our public and private financial institutions and systems—such as insurers and governments at all levels—are put under greater pressure to provide support and respond to these weather-related impacts, households across all income and wealth levels are at risk of being left with fewer opportunities to amass, maintain, and protect their wealth.

Wealth-Building Amid Climate Change

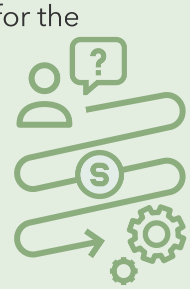
For more than three years, Aspen FSP worked to develop a new wealth agenda, grounded in the perspective that "the ultimate goal of the financial security field is not to help families merely better manage scarcity, but to truly create conditions of security and well-being that will enable full participation, agency, and dignity—not just in our economy, but in our democracy."[15] Climate stressors and disasters directly affect people's ability to build and sustain wealth and take part in its many financial and non-financial benefits, such as resilience; the opportunity to invest in oneself, one's family, or one's community; and mental and physical well-being and quality of life.

It is critical that leaders, researchers, and practitioners working to improve family financial security are aware of the ways climate hazards already undermine people's finances so that they might address existing impacts and develop solutions that help families build resilience against future impacts. This brief describes the physical risks of climate stressors and disasters on household financial security, and surfaces some of the key pathways through which prominent climate hazards negatively affect financial security.[16]

For more information on the financial security considerations of climate mitigation and adaptation efforts, please see *Considerations for a "Just Transition."*

Considerations for a "Just Transition"

Although this brief focuses largely on the physical risks of climate stressors and disasters on family finances, it's important to also consider transition risks associated with shifting to a climate-resilient economy and renewable energy.[17] While these developments will help families adjust to—and mitigate—the effects of climate change, they could also introduce new financial stressors that would be felt most acutely among households with low incomes and low wealth. For example, investment in climate-resilient infrastructure could also raise housing costs, with the risk of pricing out residents.[18] Loss of employment in fossil fuel industries could also disproportionately affect lower-income workers who may be barred by a lack of skills and physical proximity to find work in a new sector.[19] Left unaddressed, these risks could widen existing wealth gaps through either excluding communities from access to wealth building from the energy transition or insufficiently protecting their wealth from climate impacts. It is critical that climate resilience and mitigation efforts ensure a "just transition," in which new projects include the needs of lower-income households and underserved communities.[20] A just transition requires an inclusive financial system[21] and will be an important priority as communities draw on the billions of dollars' worth of federal funding now available for climate resilience and mitigation projects.[22] This is also a potential opportunity for the development of new asset classes such as solar power cooperatives that can expand wealth-building opportunities, including community wealth building, a key element for economic justice.



Methodology

This brief is informed by extensive research, including the synthesis of insights published by leading organizations focused on the environment or on financial security. Aspen FSP hosted a roundtable discussion "Climate and Financial Resilience" at Aspen Ideas: Climate in March 2022 that helped inform our perspective. The research process also included interviews with more than 30 experts representing federal and state governments; research, academic, and advocacy organizations; financial institutions and financial service providers; and social impact organizations who work on issues related to climate and the environment, financial security, or at the intersection of these fields. For a list of consulted experts, please see the *Acknowledgments* section of this brief. It is worth noting that this brief is focused on the impacts of climate hazards that more directly impact financial resiliency for families, rather than the broader impacts on communities, governments, and financial systems that are then felt by households.

Understanding How Climate Hazards and Access to Safeguards Affect Household Financial Security

Climate hazards include both stressors and disasters.[23] While stressors such as drought, extreme heat, and sea-level rise have persistently negative impacts for longer time horizons, disasters such as hurricanes, floods, and wildfires have sudden and catastrophic impacts over a shorter period—though financial impacts may still be felt years after a climate event. The challenges of predicting the onset and intensity of climate hazards exacerbate their negative impacts by making it difficult for households to anticipate and prepare for them. Moreover, households may experience multiple stressors or disasters simultaneously or sequentially, such as a hurricane that causes flooding in its wake or a wildfire that occurs during a period of extreme heat. Without enough time and resources to recover from one hazard, families and communities will have a harder time weathering the next one, especially when they are felt closely together.

Aspen FSP has created this brief to better understand how these climate hazards affect household financial security. It demonstrates how climate stressors and disasters can create direct and indirect financial disruptions for families, who turn to financial safeguards prior to, during, and after a climate hazard to protect and recover their finances. It's worth noting current safeguards are not necessarily designed to allow a household to be better off after a climate stressor or disaster—or be sufficiently prepared for the next one. With each subsequent disaster, it is likely to see households becoming worse off.

Three Factors That Shape Financial Resiliency in the Face of Climate Impacts

Climate Stressors and Disasters

- Drought
- Extreme Heat
- Sea-Level Rise
- Floods
- Severe Storms
- Wildfires

Financial Disruptions

- Income Shocks
- Additional and Increasing Expenses
- Asset Loss and Depreciation
- Financial Service Interruptions

Financial Safeguards

- Personal Resources
- Government Assistance
- Insurance and Credit Products
- Workplace Benefits and Policies
- Community Resources

Climate hazards can lead to multiple kinds of financial disruptions:

- **Income shocks** include wage disruptions from fewer hours worked or an inability to work, or through impacts to non-labor income, such as interruptions to public benefits payments. Parents and other caretakers may have to forgo work if daycare or schools are closed.
- Families may take on **additional and increasing expenses** to evacuate or relocate, replace or repair damaged personal property and medication, pay for the rising costs of utilities, and cover the cost of gas and other transit. Cost pressures can also increase from damage to physical infrastructure, like roads, power systems, or internet connectivity. Such damage can disrupt business operations and impact the delivery of needed goods and services such as groceries, in turn making them more expensive.
- Families may experience **asset loss and depreciation** such as the destruction or loss of cars and homes. Damage from climate hazards can also impact property values, which could limit people's ability to borrow, and depending on the level of damage, risks property abandonment.
- Climate events may create **financial service interruptions** if banks, credit unions, or other financial institutions are closed or difficult to reach due to flooding or storm damage or through loss of electricity or internet access. This can limit access to needed financial products and services, disrupt payment services, and hinder people's ability to access their own savings or make or receive payments.

The severity of these impacts will depend on the quality and availability of the financial safeguards people can access and whether they can access them before, during, and/or after climate hazards:

- **Personal resources** such as liquid or emergency savings and other financial assets are used to address the immediate financial disruptions including unexpected expenses. People could also draw down other assets such as retirement savings to address income and expense shocks, though these may have associated penalties. They may also seek financial or other needed support from their social networks, though people in their networks may be affected by the same climate impacts if they live in the same or nearby communities.
- **Financial products and insurance** such as private loans, credit cards, and other needed products and services help families meet short-term needs when income or savings is not enough to meet the expense. Households may have purchased private homeowners or rental insurance, which may provide some coverage and help defray the costs of damage to personal property.
- **Workplace benefits and policies** like paid time off and paid sick leave help families take time off work without having to lose income, whereas hardship funds and emergency savings accounts provide needed liquidity. Some workers may also be offered flexibility including the ability to work remotely.
- **Government assistance** may be available, such as support from the Federal Emergency Management Agency (FEMA), the Department of Housing and Urban Development (HUD), or the Small Business Administration (SBA), direct cash assistance, and critical benefit programs including Disaster Supplemental Nutrition Assistance (D-SNAP), unemployment insurance, and the Low-Income Home Energy Assistance Program (LIHEAP). These supports help families address large-scale damage from federally declared emergencies, provide cash support after a disaster, or offer direct support for expenses such as food and energy costs.

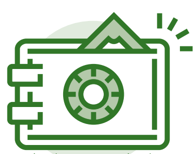
- **Community resources**—such as in-kind support of food, water, basic supplies, and temporary shelter provided by local nonprofits and community-based organizations, philanthropic organizations, and faith-based institutions—help households meet immediate needs in the absence of sufficient personal resources or financial products, or when these needed goods are difficult to obtain.

Together, the impact of financial disruptions and the quality and sufficiency of safeguards available to families will influence whether families find themselves in a worse financial position after experiencing climate hazards. For instance, two families experiencing the same disaster may have disparate outcomes based on the safeguards they have or can access.

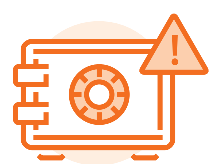
How Do Families Experience Climate Hazards Differently?

In this scenario, **"the Williams"** and **"the Miller"** families are neighbors living very similar lives. Both are married couples in their 40s with two children and a mortgage. They have about the same household income and homeowners' insurance. But when a hurricane strikes their community, their fortunes diverge significantly.

Although the Williams are displaced, as homeowners with **sufficient savings and workplace benefits**, they can draw upon their savings and maintain their income through remote work and paid time off. They have the resources to temporarily relocate and even receive help from their insurance company to cover needed repairs.



The Millers have **little savings and less flexibility at work**, and lose income by taking off time to relocate. Community resources provide crucial short-term stability. However, without income, they struggle to pay for needed repairs, even with support from insurance, and have to apply for federal support. The delayed repairs make the home uninhabitable, causing their family to become renters, lose value in their asset, and potentially face higher monthly housing costs.



Climate Stressors and Disasters Have Disparate and Compounding Impacts on Family Finances

The following illustration demonstrates some of the impact channels climate hazards, such as flooding, can have on family finances.

Flooding occurs when there is an overflow of water in areas that are typically dry. There are many types of flooding including coastal, riverine/inland, nuisance flooding, and storm surge flooding caused by hurricanes.[24] Floods and hurricanes are the costliest disasters in the U.S. particularly in areas without public infrastructure equipped to handle such severe flooding. Since 1998, 99% of all counties in the U.S. have experienced a flood–many of which are not considered high-risk areas.[25]

Impacts on Income and Wages Earned

Interrupts ability to work or reduces work hours due to disruptions to business operations, childcare, and health such as a waterborne illness.

Interrupts public benefits receipt due to office closures.

Impacts on Expenses Incurred

Increases the need to purchase flood insurance. One inch of flood water can create up to $25,000 in damages to one's home.[26]

Adds costs to temporarily or permanently relocate.

Forces households to purchase clean drinking water when water supply is contaminated. Waterborne illnesses may lead to increased medical costs.

Impacts on Wealth and Personal Assets

Damages or destroys property such as homes and cars. Homeowners and renters insurance typically does not cover flood damage.

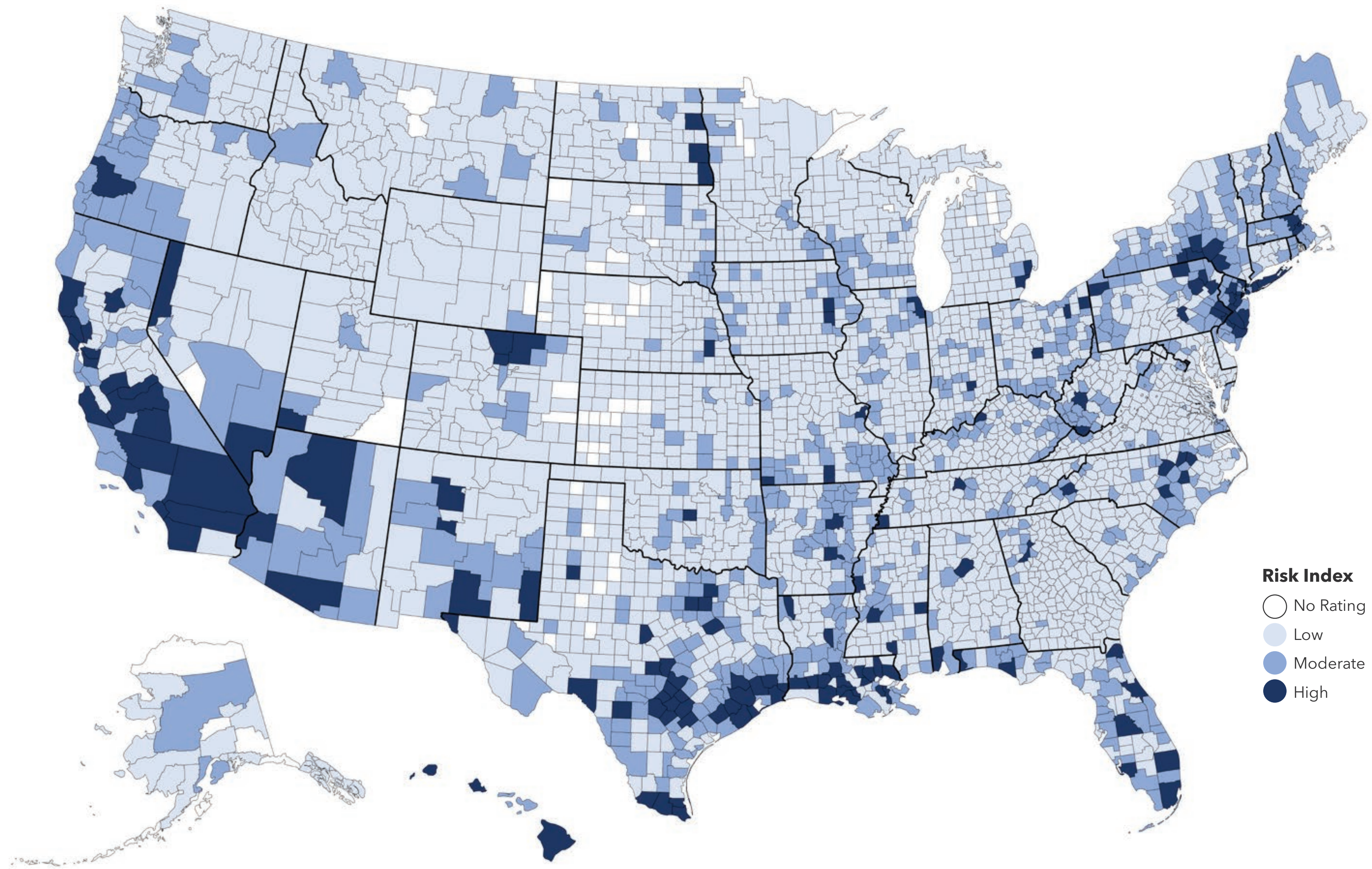
Increases the risk of abandonment of properties that cannot be repaired or are too expensive to repair.

POPULATIONS MOST EXPOSED TO FLOODS INCLUDE:[27]

- Renters, who are typically not insured against flooding
- Homeowners without flood insurance
- People living in coastal areas or low-lying areas, including particular neighborhoods in cities. Black communities and lower-income communities with larger white populations are disproportionately located in areas impacted by flooding

The Potential for Negative Impact from Flooding are Widespread

Risk Index Rating Associated with Riverine Flooding by U.S. County



This map only demonstrates riverine flooding risk. Riverine flooding occurs when rivers and streams overflow their banks onto dry land. The risk index is based on measures of community risk and resilience and expected economic losses from natural hazards. "No rating" indicates no county-level risk rating due to no expected annual economic losses from that particular hazard.

Source: *National Risk Index (NRI), FEMA. For more information on the NRI, see https://hazards.fema.gov/nri/frequently-asked-questions/.*

Climate Stressors and Disasters Have Disparate and Compounding Impacts on Family Finances

The following illustration demonstrates some of the impact channels climate hazards, such as extreme heat, can have on family finances.

Extreme heat or heat waves are characterized by periods of heat and/or humidity that are abnormally high in a given place.[28] The Atlantic Council estimates that without adaptation, in 2050, extreme heat could cause approximately 450,000 occupational injuries and 59,000 deaths.[29]

Impacts on Income and Wages Earned

Interrupts ability to work or reduces work hours due to heat-related disruptions to business operations, childcare, and health such as heat illness.

Interrupts or delays public benefits receipt due to higher than usual caseloads and office closures.

Impacts on Expenses Incurred

Increases utility costs for those that have and can afford to use air conditioning (AC). Those without AC, or the ability to pay for these costs, risk heat-related illnesses and death.

Impacts on Wealth and Personal Assets

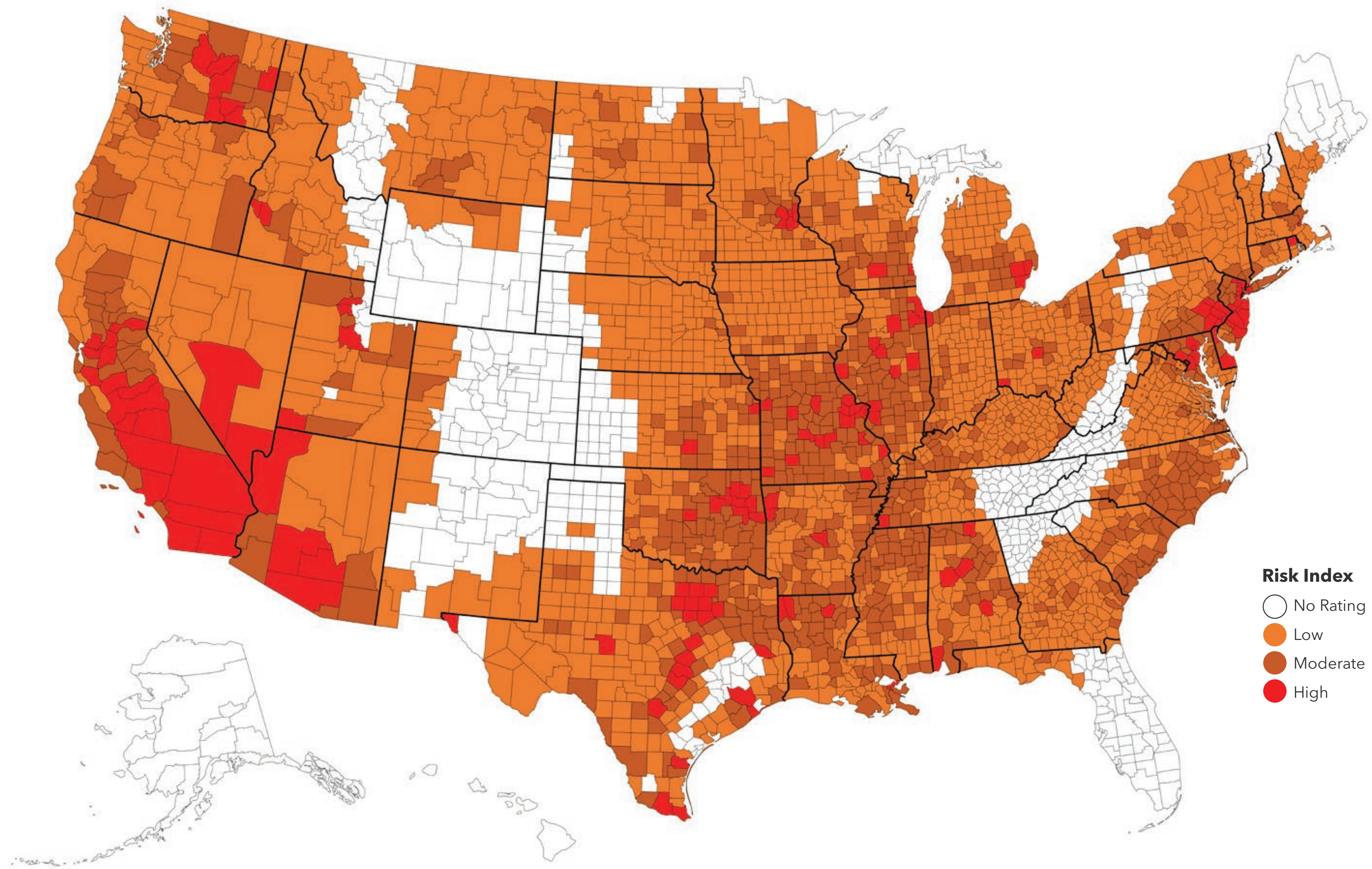
Damages homes and vehicles, reducing their value.

POPULATIONS MOST EXPOSED TO EXTREME HEAT INCLUDE:[30]

- Outdoor workers and those exposed to the elements in their jobs (e.g., agriculture, construction, manufacturing, tourism)
- Black, Indigenous, and Hispanic communities and immigrants who are likely to live in census tracts that are more prone to higher temperatures
- Infants, children, older adults, and people with chronic health conditions
- People living in cities. Buildings and asphalt can magnify heat, and this is worse in previously redlined communities, which have fewer trees/ less shade for protection. (To learn more about redlining, please explore our report, *Foundations of a New Wealth Agenda*.)

The Potential for Negative Impact from Extreme Heat is Widespread

Risk Index Rating Associated with Heat Waves by U.S. County



The risk index is based on measures of community risk and resilience and expected economic losses from natural hazards. "No rating" indicates no county-level risk rating due to no expected annual economic losses from that particular hazard.

Source: *National Risk Index (NRI), FEMA. For more information on the NRI, see https://hazards.fema.gov/nri/frequently-asked-questions/.*

Wildfires and Financial Resilience

As parts of the United States—particularly the Western and Mountain states–contend with extreme heat and dry conditions, wildfires have become more frequent and widespread. In fact, since 1980, the United States has experienced 22 wildfires that each caused more than $1 billion in damages to public infrastructure, private residences, and vital community resources.[31] Aligned with the current trend, it is estimated that by 2050, roughly 34,000 homes will burn down because of wildfires every year.[32] Smoke and air quality issues extend far beyond the reach of the fires themselves, limiting outdoor work and closing schools as it becomes unsafe to spend time outside. Homeowners need property insurance to protect their assets, yet in recent years, insurance companies have had to raise premiums to reflect the increased risk of damage and total loss from wildfires, and some insurance companies have limited their coverage or left states with high wildfire risk. Areas most impacted in high-risk states such as California, for instance, have experienced a nearly 800 percent increase in insurance-initiated non-renewals, making homeownership increasingly expensive and risky as potential and current homeowners must bear the risk of loss themselves.[33]

Opportunities for Research and Partnership That Promote Wealth Building and Protection

Families across the country, regardless of their wealth and income, are already struggling to protect themselves and their families from the financial consequences of climate hazards. This brief demonstrates that damage from large and small weather-related events are occurring across the U.S., and cumulatively, making it harder for everyone to be financially secure. As these climate stressors and disasters increase in frequency and intensity, more families nationwide will experience recurrent financial shocks with long-term consequences that—without sufficient financial safeguards—will leave families more vulnerable to future climate events or other financial disruptions. In turn, this would negatively affect their ability to build and maintain wealth, and risk the loss of wealth's key functions, such as mental and physical health, agency and dignity, and economic opportunity to name a few. At scale, these disruptions undermine the vitality of our society and democracy.

Cross-sector action is needed to address the dual pressures of climate impacts and financial insecurity. As climate scientists, government officials, and staff at community organizations work on resiliency and mitigation efforts, leaders in the financial security field have a role to play in advancing these efforts with an eye toward household financial well-being. Researchers and practitioners can deepen our understanding of how experiencing climate hazards uniquely impacts wealth-building trajectories for families and their communities. Moreover, the added climate impacts make it more pressing to reevaluate the ways people traditionally build wealth—such as via the purchase of a home—because of the volatility that climate stressors and disasters can wreak. Leaders must work to strengthen these wealth-building pathways against climate impacts and help identify and scale up promising innovations that promote financial security amid climate change. And yet, despite the unknowns, we have a sense of what solution areas merit further attention, innovation, creativity, and urgency:

- Increasing the access and availability of products and platforms that help families address short-term liquidity needs in the absence or delay of government benefits, insurance payouts, or other support, including low-interest loans and workplace-based emergency savings accounts;[34]
- Ensuring asset protection and insurance so families maintain, use, and benefit from the wealth they build,[35] including models for homeowners and renters insurance that address availability, affordability, and timeliness;
- Improving the responsiveness and ease of access to government-to-person payment systems[36] to ensure households receive timely and sufficient support before, during, and after climate hazards;[37] and
- Fostering technological innovation that allows for faster and more secure movement of money, including digital identity authentication and verification solutions and strengthened data sharing and privacy rules.[38]

Recognizing that families cannot address the consequences of climate impacts on their own, Aspen FSP invites public, private, and nonprofit leaders to work with us to refine how we think about and respond to the existing and emerging threats to financial stability, and to craft a cross-sector agenda to more effectively promote household financial security and mitigate the challenges presented by our warming planet.

Endnotes

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