

SURVIVING THE STORMS

How Severe Weather Hazards Challenge the Financial Security of Small Businesses

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Executive Summary

Small businesses serve as a central pillar to the U.S. economy and local communities. They comprise 99.9 percent of all businesses, contribute to 44 percent of GDP, and employ nearly half of private-sector workers. They enrich both urban and rural America by providing employment, shaping local culture, and drawing tourism, among other benefits. They also contribute to the financial security of millions of owners and employees connected to them.

But small businesses face a growing threat: the increasing frequency and intensity of severe weather hazards such as hurricanes, wildfires, and heat waves. Forty percent never reopen after a natural disaster, and an additional 25 percent close a year later. And compared to large businesses, small businesses are more vulnerable because they tend to have fewer means to prepare and recover.

To highlight the challenges small businesses face, as well as the opportunities for resilience and recovery, this report provides a framework drawing on extensive research and original interviews with small business owners and employees that clarifies the nature of weather risks, the sources of disruptions, and the safeguards to mitigate damages.

Key Findings

- Disruptions to small businesses vary depending on the nature of severe weather hazards. While disasters (e.g. hurricanes or wildfires) have sudden and intense impacts, stressors (e.g. heat waves or sea-level rise) spread damages over a longer period. Interviews demonstrated how impacts are shaped by context, such as the location of the business and the timing of the weather hazard. Business owners also tended to view weather disruptions alongside those caused by other crises, such as the COVID-19 pandemic.
- Small business owners contend with a range of disruptions to operations that can trigger a financial shock. Businesses have multiple vulnerabilities, such as property damage, lost customers, and unavailable employees. Interviewed owners emphasized that customer drop-off is both common and costly after severe weather, and that reopening doesn't necessarily mean recovery.
- While multiple financial safeguards aid recovery, small businesses face barriers to benefitting from them. To recover from a severe weather hazard, small businesses need quick funds they can draw on from sources including cash reserves, disaster loans, insurance, regional and community loans and grants, and community and peer support. While each plays a role in restoring business operations, barriers to accessing external safeguards–such as insufficient credit and eligibility requirements–leave most businesses to rely on their own means.

Recommendations to Support Resilience and Recovery

To help small businesses withstand severe weather hazards, leaders in business support services, finance, government, disaster response, and philanthropy can pursue the following opportunities for research and action:

- Raise awareness and funding for enhanced preparation. Business owners often lack the information or finances to adopt critical preemptive measures such as disaster planning, resilient building upgrades, and digitized operations.
- Deliver centralized information through trusted, relevant sources. To connect to critical support amid an overwhelming amount of information, interviewed business owners highlighted the role of trusted sector-specific resources or peer groups that compiled relevant information in one place.
- Simplify processes that lead to delays or denials of critical funds. Complex application processes and burdensome documentation requirements make it harder to navigate disaster loans and insurance.
- Scale up accessible and flexible financial products to fill gaps in funding. While community loans and grants help fill gaps in access to other safeguards, many businesses are still unable to benefit from them due to limited availability.
- Sustain financial support to reflect long-term regional recovery. Current safeguards are not necessarily designed for long-term recovery, which is vital for businesses in regions that take time to bounce back from severe weather hazards.
- Leverage small businesses as a key safeguard for local communities. Disaster relief efforts can partner with small businesses to leverage a role they already play: serving as a trusted and dynamic safeguard to both their employees and other businesses.

As severe weather hazards become more frequent and intense, most small businesses are unprepared and lack adequate safeguards. A cross-sector approach to advancing solutions is needed to ensure small businesses not only survive the coming storms but also continue to drive prosperity for all U.S. communities.

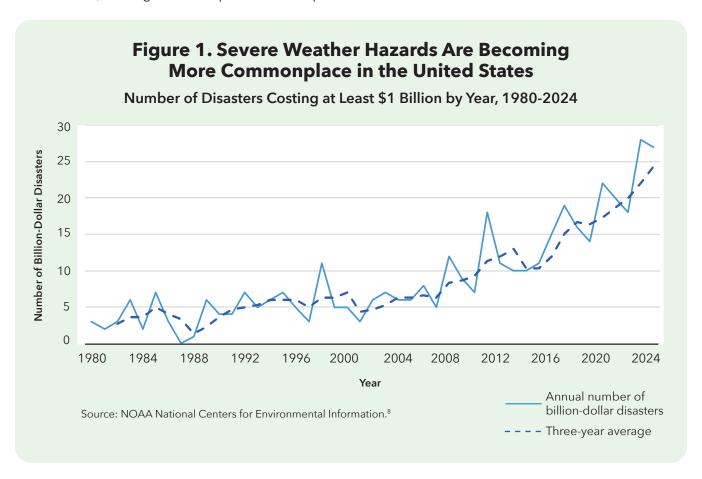
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Severe weather hazards threaten the viability of millions of small businesses in the U.S., putting the finances of owners and employees at risk

Small businesses-firms with less than 500 employees-play an essential role in the U.S. economy and local communities. They comprise 99.9 percent of all U.S. businesses, contribute to 44 percent of GDP, and employ nearly half of private-sector workers. They enable local thriving, shaping an area's culture, supporting local employment, providing charitable services, and drawing tourism.² They also provide livelihoods to millions of entrepreneurs and employees, making the health of small businesses important to the financial security of families in the U.S.

However, these businesses are threatened by severe weather hazards-such as hurricanes, wildfires, and heat waves-which have become increasingly common (Figure 1).3 From 2020 to 2024, the U.S. experienced 115 natural disasters costing at least \$1 billion each, inflicting a total of \$746.7 billion in damages.⁴ In 2022, 10 percent of U.S. employer small firms (small businesses with at least one paid employee) had a monetary loss because of severe weather.⁵ While these losses can occur across the country, they are elevated in regions with the highest risk of weather hazards, such as the Gulf Coast, West Coast, and the Middle Atlantic (New Jersey and New York).6 And compared to large businesses, smaller ones often have limited resources and capacity to manage these hazards, creating more disruptions to their operations.⁷



As severe weather hazards become more common and costly, many small businesses are vulnerable to significant disruption or even closure, impacting their communities, owners, and employees. According to Federal Emergency Management Agency (FEMA) and the U.S. Department of Labor, 40 percent do not reopen after a natural disaster and an additional 25 percent shut down a year later. The large scale of closures alters the business landscape in affected areas: After Hurricanes Katrina and Rita, 81,000 businesses in Louisiana were damaged, and a quarter of these businesses had not reopened a year later.¹⁰ These disruptions can become sources of financial hardship for owners and employees through a reduction in income and critical benefits, burdensome debt, damage to credit scores, and a loss of personal wealth (see the text box on the next page, The Toll of Severe Weather Hazards on the Financial Security of Small Business Owners and Employees).

The high failure rate of small businesses because of severe weather hazards reveals that too many are unable to get the support they need to recover. To ensure these businesses can stay resilient and thrive, leaders in small business support services, finance, government, disaster response, and philanthropy need a clear understanding of the disruptions businesses experience and the safeguards they use. This report provides a framework to understand how severe weather shapes business outcomes and sheds light on what they need to recover and be resilient today.

THE TOLL OF SEVERE WEATHER HAZARDS ON THE FINANCIAL SECURITY OF SMALL BUSINESS OWNERS AND EMPLOYEES

Owners' personal finances often depend on the performance of their businesses, and disruptions can exact high personal costs:

- Revenue loss leading to income loss. Small business owners often rely on their businesses as their primary source of income. After severe weather, revenue shortfalls leave less cash with which they can pay themselves.¹¹
- Debt burdens and damaged credit scores. Owners who borrow to make up for revenue losses could remain in debt for years. If they lose their business, they still face repayment obligations. Defaulting on loans could also result in severe damage to personal credit scores and seizure of assets used as collateral.¹²
- Wealth loss by using personal assets to support the business. It is also common for owners to use their personal resources to fund weather-related losses, which could result in depleted emergency funds, early retirement withdrawals, and falling behind on financial goals such as homeownership or a car purchase.13

Business disruptions also threaten the income and critical benefits of employees whose livelihoods depend on small business continuity:

- Interrupted income through reduced hours, layoffs, and delayed payment. Hourly employees may lose income if businesses reduce hours or close, or if severe weather hazards make them unavailable while the business is open.¹⁴ While salaried employees receive full pay even if the business closes temporarily, their employer may require them to use paid leave hours during this time, and their pay could be reduced if weather-related disruptions prevent them from working when the business reopens.^{15, 16} Business disruptions also increase the risk of staff layoffs. Power outages and damaged records could also disrupt payroll systems, leading to delays in receiving paychecks. 17, 18
- Risk of losing critical benefits such as health care and paid leave. Workers are at risk of a reduction or loss of critical employee benefits-such as health care and paid leave-because of weather-related job loss, prolonged time away from work, or an employer's decision to reduce benefits to make up for revenue disruptions. 19, 20 If they lose paid time off or health care benefits, employees may have to self-finance the costs of medical treatment and take unpaid leave for caregiving duties.

Understanding how weather hazards impact the finances of small businesses

Drawing from a previous report, A Gathering Storm: Why the Growth in Climate Hazards Matters for Household Financial Security, we provide a framework to clarify the specific sources of impact on small businesses, revealing opportunities for action to support preparation, response, and recovery.²¹ This report examines the pathways through which severe weather hazards result in financial challenges based on three factors: the type of severe weather (disasters or stressors), disruptions to operations, and financial safeguards. Findings are based on a literature review and insights from 29 interviews with business owners, employees, and small business support organizations. Together, they demonstrate the complexities of navigating weather-related hazards and the varied paths to recovery.

About our interviewees

To learn about financial impacts for both owners and employees, we conducted 29 interviews with 16 small business owners and six employees who have experienced severe weather hazards, as well as seven business support organizations with experience helping small businesses prepare for disruption and connecting them to resources after a severe weather event. Our insights are also informed by visits to North Carolina and Texas to hear directly from impacted small businesses.

The small business owners and employees we interviewed for this project reflect a diversity of lived experiences with severe weather hazards. We selected interviewees who had faced hurricanes, flooding, wildfires, or heat waves to capture a range of hazards. Participants were located in states prone to severe weather-California, Louisiana, North Carolina, Texas, Arizona, Florida, and Colorado-and represented industries including hospitality, restaurants, tourism, construction, childcare, and digital marketing. These businesses also experienced a range of financial impacts, from minimal to severe disruptions, including two businesses that closed indefinitely.

Three Factors That Shape How Severe Weather Hazards **Impact Small Businesses**

Severe weather disasters and stressors



- Hurricanes
- Floods
- Wildfires
- Heat waves
- Sea-level rise

Disruptions to operations



- Property, inventory, and equipment
- Utilities
- Digital infrastructure and payment systems
- Supply chains
- **Employees**
- Customers

Financial safeguards



- Business cash reserves
- Loans and insurance
- Regional and community loans and grants
- Community supports
- Personal savings, reduced income, and leniency from creditors

Impacts to small businesses vary by the type of severe weather hazard

Research and interviews show how the challenges small businesses experience differ depending on the type of severe weather hazard. Interviews revealed that these challenges can be amplified or mitigated based on context factors, such as location and timing. Business owners we spoke to also tended to view weather hazards in terms of disruptions more broadly, rather than emphasize the issue of severe weather.

Costs to small businesses depend on whether they experience disasters or stressors

The magnitude and nature of financial disruptions that small businesses experience depends on the type of severe weather hazard they endure. These hazards can be grouped into two broad categories: disasters and stressors.

Disasters include high-intensity events such as hurricanes, floods, and wildfires that inflict sudden and potentially catastrophic damages to property, inventory, and local infrastructure. Hurricanes tend to be the costliest hazard: In 2017, three hurricanes-Irma, Harvey, and Matthew-accounted for 92 percent of small businesses with disaster losses.²² Disasters can lead to immediate shutdown or a prolonged recovery that could take months or even years.²³

Stressors, such as heat waves and sea-level rise, spread out impacts over a longer time horizon. While they don't have the immediate devastation of disasters, they carry ongoing costs and increase the risk of closure.²⁴ Heat waves impose the highest collective damages to the U.S. of any other stressor, burdening small businesses with seasonal jumps in cooling costs, health risks for workers, and reduced customer traffic.²⁵

Challenges predicting the timing and intensity of disasters and stressors can make it harder to anticipate when and how much preparation is needed. Small businesses may also experience multiple stressors or disasters at the same time or in quick succession, such as a wildfire that occurs simultaneously with a heat wave.²⁶ If businesses don't have enough time and resources to recover from one hazard, they will struggle to withstand the next, especially when the hazards occur consecutively.

Location and timing can shape the degree of impact

Conversations with business owners revealed that despite being in the same region affected by severe weather hazards, businesses can experience different outcomes based on their specific location. Two owners enduring the same wildfire event in California had starkly different trajectories because one was in the path of the blazes, while the other was nearby but spared from direct damage. The former had to shut down her business, while the latter only closed for a day. Similarly, one restaurant owner in Texas avoided flood-based property damage after Hurricane Harvey because her establishment was built on higher ground.

However, we learned from interviews that businesses that aren't directly impacted can still experience major setbacks-and even closure-when their operations depend on local conditions. For the California business owner who only closed for a day because his establishment was out of the direct wildfire path, it still took six weeks for his business to recover financially because it depended on local customers, many of whom were themselves dealing with the aftermath of the fires.

The timing of the hazard mattered as well. Owners dependent on tourism in Asheville, North Carolina, were hit by a hurricane just before one of the busiest times of the year, with one hotel owner commenting, "The biggest impact on Asheville is that the flood happened on September 26, [so] the entire town was closed in October-our highest revenue month at the end of the year."

Business owners tended to view disruptions from severe weather hazards alongside those caused by other crises

Small business owners we spoke to were often focused on disruptions more broadly, severe weather being one of them. Multiple owners, unprompted, compared their experiences with weather hazards to other emergencies such as the COVID-19 pandemic. A business owner in Louisiana compared weather-related disruptions to

those of the BP oil spill in 2010. Regardless of the specific impacts they faced, these businesses often approached weather events like any other significant financial disruption, acknowledging that such challenges have become an inherent cost of doing business. One owner who regularly operates during heat waves observed, "When you're in an environment all the time and you're dealing with it, you're not really thinking that this event is any different from any other event."

Relatedly, some business owners took lessons from the COVID-19 pandemic to prepare for severe weather hazards. For example, a North



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Carolina business owner's experience with the pandemic motivated her to keep better financial records, which made it easier for her to fill out disaster relief applications when Hurricane Helene struck in 2024, saying, "COVID trained me on what I would be asked of and we have been really good bookkeepers."

Small businesses face multiple types of disruptions from severe weather hazards

Severe weather hazards can trigger major financial shocks for businesses by causing revenue losses and sudden increases in expenses. These shocks result from a range of vulnerabilities, including property damage, supply chain interruptions, and declines in customer demand. This section outlines the key types of weather-related operational disruptions.²⁷

Property, inventory, and equipment

Damages to structures, inventory, and equipment may require repair or replacement costs, temporary closure, lost revenue, and operational delays.^{28,29} Though structural damage isn't necessarily the most common disruption, it can be the costliest.30

Business owners we spoke to who faced severe damage to their physical locations from events like wildfires or hurricanes often experienced the longest closures. For example, a wildfire destroyed the home from where an owner ran her business. She had to shut down operations indefinitely, navigating personal challenges before she could begin to consider how to finance a recovery. She was struck by the totality of damages: "Everything was burned to the ground. I couldn't understand how flat everything was-I didn't even see the fridge or the toilets. There were no signs of anything."

Furthermore, businesses that rent spaces may have additional hurdles of lacking control over repairs, higher costs of rent and risk of eviction, and the need to coordinate with landlords to initiate property damage insurance claims.31

Utilities

Severe weather hazards strain local utilities, leading to power outages, internet service disruptions, and water shortages, driving up operating costs and reducing revenue.³² During heat waves, energy costs can increase sharply because of higher cooling demand.³³ It can take weeks or even months until local utilities are restored, prolonging disruptions.34

A business owner in Arizona noted that a jump in cooling costs during summer heat waves affected both him and his employees, but he could not adjust compensation for his staff to accommodate the burden. He explained, "There is almost a 300 percent jump between now [March] and August ... I'd love there to be a point where I can go ahead and adjust salaries and wages during these peak times, but unfortunately the business isn't there yet. But it does hit everybody in the pocketbook."

Digital infrastructure and payment systems

Weather-induced power outages and damages to telecommunications and computer hardware can disrupt digital payments systems, which small businesses rely on to make payroll, sell to customers, and cover expenses. 35, 36 Local financial institutions, such as banks and credit unions, may have service disruptions, which can lead to delays in direct deposits or digital transactions. 37, 38

A Louisiana business owner described challenges his business experienced in the aftermath of a hurricane that clients of larger banks did not necessarily face: "Some were at bigger banks, so they had the ability to transfer electronic funds, but we couldn't access them because our bank was shut down on this end, so it was kind of harrowing. The bank that we deal with is a quasi-community bank; they have operations in Mississippi and Alabama too, and we were able to have them waive the cap on a line of credit we have with them so we could access more cash and keep our employees paid."

Supply chains

Weather damage to infrastructure and supplier businesses can disrupt supply chains, leading to delayed or canceled orders, inventory shortages, and operations coming to a halt.³⁹ Even if businesses themselves suffer little damage or are able to open their doors, they may not have enough supplies on hand to sustain weeks, or even days, of operations.

For a business in Louisiana, a hurricane in a different city affected its suppliers, slowing down orders even when it wasn't directly impacted. An employee at this business described how this hurt his ability to make sales, saying, "Houston got hit a couple years ago. That's a significant port, a significant area when it comes to refineries and raw materials. Those refineries being down caused us a totally different headache ... the availability of raw materials to have the items to sell."

Employees

Severe weather hazards can lead to staffing shortages as employees face personal challenges like property damage, displacement, or medical emergencies, slowing operations or causing closures. Infrastructure damage and transportation disruption can make it difficult to commute to work. Extreme heat increases the risk of illness or injury for outdoor workers.^{40, 41} Employees may be forced to evacuate temporarily or permanently, leaving businesses with a smaller pool of labor to draw from and the additional costs of recruiting and training new staff.42,43

For one owner in North Carolina, the emotional toll of enduring a hurricane made it difficult for her employees to return to their jobs: "Everyone was in so much shock and so much trauma, there was no motivation to get back to work. From my perspective I was trying to maintain jobs." Personal crises also made employees we spoke with unavailable to work. One employee lost her home and had to miss several weeks of work after a hurricane. When she returned, her role was slightly diminished because another worker began covering some of her previous duties in her absence.

Employees' inability to return or commute to work can also challenge businesses that see their demand spike during disasters. An interviewed construction materials firm in Louisiana saw higher demand after hurricanes and flooding because of the need to rebuild, serving as an "essential business" during a critical time. However, the business faced obstacles meeting that demand because of unavailable employees.

Customers

Severe weather hazards can reduce customer traffic and sales. Disaster-related road closures, public transit service interruptions, or excess heat make it harder for customers to visit in-person locations.^{44, 45} Customers

may also temporarily or permanently evacuate if living conditions become unviable.46 After a disaster, local spending priorities may shift away from goods perceived as luxury items or non-essential, impacting firms providing those products or services.⁴⁷

Conversations with owners repeatedly emphasized the drop in customers was the biggest challenge they faced with severe weather. A hotel owner in North Carolina struggled with this for months after Hurricane Helene, saying, "If people feel like their favorite restaurant isn't open or their hiking trails are closed, they feel it's



Conversations with owners repeatedly emphasized the drop in customers was the biggest challenge they faced with severe weather.



questionable and they choose somewhere else." For one Arizona restaurant owner, the shift in customer patterns continued even after the heat waves subsided: "For about six months starting in the summer we closed on Tuesdays. When we started opening on Tuesdays again, it had a lingering effect even when we advertised that we would be open. It's hard when you have customers who fit in your routine. You may end up losing some guests over it, permanently or for a long time."

Virtual businesses are not spared from these disruptions

Although primarily virtual customer interactions insulated some of the damage from severe weather for a couple of business owners we spoke to, they were still challenged by operational disruptions tied to regional conditions. An owner of a digital marketing firm with virtual customer interactions and remote staff still struggled during a heat wave because most clients were local businesses that were losing money from lower foot traffic: "During the summer it was really bad. I had multiple clients call me up saying, 'We love everything you do, but we are literally struggling to make payroll right now, so we have to pause.' And marketing is the easiest thing to stop spend on."

Reopening doesn't necessarily lead to recovery

Several of the businesses we spoke to that had closed temporarily reopened at some capacity after regional conditions improved, customers and employees returned, and they secured disaster financing. However, the lingering effects of severe weather still impacted their businesses. Despite being open for months after a hurricane, one business owner in North Carolina continued to experience sustained customer drop-off, saying, "We're at 50 percent of our typical revenue right now ... we started again months ago but it's been crickets until recently."

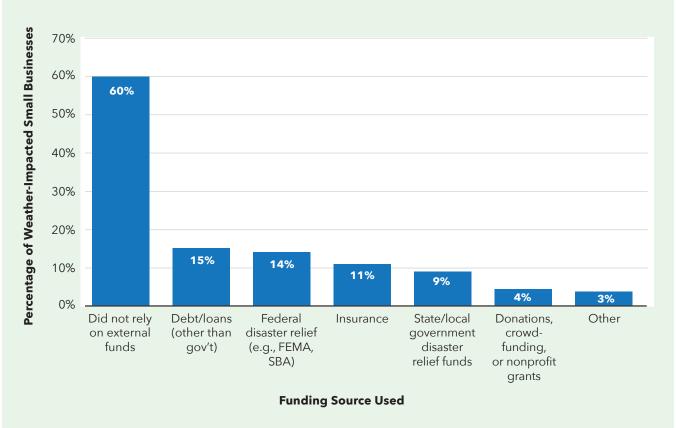
Small businesses draw on multiple financial safeguards before, during, and after severe weather hazards

Small businesses can mitigate damages from severe weather hazards using financial safeguards before, during, and after impact. Typically, these safeguards include cash reserves, loans, grants, insurance, and community and peer support. For them to be effective, they must be timely, accessible, user-friendly, and sufficient to help recover losses. Conversations with business owners emphasized the importance of speed: the longer businesses cannot generate enough revenue because of operational or regional disruptions, the more likely they will need to lay off staff or shut down entirely.

However, limited availability, complex processes, burdensome paperwork, and eligibility restrictions can make it harder to access and benefit from safeguards, which helps explain why 60 percent of impacted small businesses do not rely on external funds after a disaster (Figure 2).^{48,49} While most safeguards focus on restoring operations and repairing damage, they are not necessarily designed to support long-term recovery and resilience (for more on resilience and preparation before a weather hazard, see the text box on page 16, Planning and Adapting Before Impact).^{50, 51} Without ongoing revenue or sustained assistance tied to mitigation or regional rebuilding, businesses may encounter new funding shortfalls once grants, loans, or insurance funds run out.

Figure 2. Most Small Businesses Impacted by Severe Weather **Do Not Turn to External Financial Safeguards**

Funding Sources Small Businesses Used to Cope With Disaster Losses, 2021



Source: Federal Reserve Bank of New York analysis of 2021 Small Business Credit Survey.⁵² Includes both employer and non-employer firms. Percentages do not sum to 100 percent because respondents were allowed to select multiple options.

Because no single safeguard can address all the challenges, it is important to understand the roles different forms of assistance can play and how they complement each other in the recovery process. This section briefly reviews the key financial safeguards small businesses turn to after severe weather, their potential role in recovery, the sources that provide them, and their respective benefits and limitations (for a visual overview, see Table 1. Benefits, Limitations, and Access Points for Financial Safeguards on page 20).53

PLANNING AND ADAPTING BEFORE IMPACT

Resilience and recovery from severe weather hazards is not only determined by the safeguards small businesses can draw upon at impact but also about the steps they take to prepare beforehand. These steps include, but are not limited to:54

- Understanding local area risk through information on likely weather hazards and using technology to track them.55
- Adopting disaster plans to have a strategy for navigating weather hazards.⁵⁶
- Investing in financial protection by taking steps such as building cash reserves, reviewing insurance policies, and organizing financial records. An emerging solution is to sign up for financial products that trigger payouts upon a severe weather event, such as parametric insurance and contingent lines of credit.⁵⁷
- Securing important documents by uploading them to the cloud or making copies.
- Protecting operations through actions such as securing inventory ahead of time or investing in a generator.
- Diversifying supply chains by identifying alternative suppliers in the event of an emergency.
- Making resilient building upgrades, such as fortifying roofs and walls for wind resistance, to reduce repair costs, liability from building damage, and insurance premiums. 58, 59
- Digitizing operations, such as increasing virtual customer engagement, to protect from physical impacts.

While these actions ultimately save businesses money if they are hit by a disaster or stressor, a lack of risk awareness, upfront costs, time constraints, and limited information leave most small businesses underprepared, as only 26 percent have made a disaster plan. 60 This was affirmed in our interviews, with the additional finding that challenges to predicting disruptions make it harder to prepare. An owner who experienced a wildfire in Los Angeles noted, "You can plan for disasters, but until you're in it you don't know what it could be ... it's hard to plan for those things."

Immediate and flexible funds: business cash reserves

During a weather disruption, businesses with cash reserves can tap into them to cover relatively small, short-term costs when they face a dip in revenue, such as making smaller repairs or paying building rent.⁶¹ Small businesses affected by severe weather hazards are more likely to use their own funds to cope with revenue losses than any other safeguard. 62, 63 Cash reserves have the benefits of being immediately available and with no terms, but they may be quickly exhausted if businesses have them at all and need to use them for larger expenses. And most businesses have not saved enough: A rule of thumb suggests small businesses keep at least three to six months of reserves, but just 44 percent of small businesses nationally have savings for three months.⁶⁴

Several business owners we interviewed relied on cash reserves when revenue dropped, with one in North Carolina describing how essential they were after Hurricane Helene: "We were fully mitigated within four weeks of the disaster. We were able to do that by paying out of pocket. Without cash we would have been in a very difficult position."

Larger losses that are difficult to save for: loans and insurance

For expenses and revenue losses that are too large to cover with savings, businesses can also apply for loans or file insurance claims.⁶⁵ Timely arrival of these funds can be critical to recovery during closures and regional downturns. 66, 67 However, businesses often face challenges accessing and benefitting from both these safeguards.



From 2017 to 2022, about **60 percent of Small Business** Administration disaster loans were denied because of insufficient credit, lack of ability to repay, or ineligibility.



The primary source of federal disaster relief

for small businesses are Small Business Administration (SBA) disaster loans, which offer up to \$2 million with low interest rates and flexible terms.⁶⁸ But application denials are high: From 2017 to 2022, about 60 percent of disaster loans were denied because of insufficient credit, lack of ability to repay, or ineligibility, 69, 70 A small business owner may have to wait weeks or months for their application to be processed if there are problems with their required documents, the SBA is overwhelmed with cases, or federal funding runs out.^{71, 72} Applying for an SBA loan may also restrict access to other funding because the SBA cannot duplicate payments from other sources.73

Conversations with business owners affirmed these challenges with receiving an SBA disaster loan. Having lost a significant amount of revenue because of Hurricane Helene, an owner in North Carolina described how his application was delayed over demonstrating current tax records: "We were bumped out for a tax document they said we didn't have. We re-uploaded it and are back in queue for that loan."

Large, private banks may also offer more lending opportunities to support regional recovery and experience fewer service interruptions by having branches outside of the impacted area.⁷⁴ But these banks typically have tighter lending standards, making them less accessible to businesses with limited credit.^{75, 76}

Receiving a loan can be a mixed blessing. Though they help ensure businesses survive, debt obligations can impose long-term burdens on businesses and owners themselves, who may need to divert resources away from operations and growth opportunities to make payments.⁷⁷ From interviews, we learned that pre-existing debt burdens can make small business owners reluctant to borrow after severe weather hazards, limiting their options for financial safeguards. Some business owners we spoke to were still paying off SBA loans they had taken out during the COVID-19 pandemic, discouraging them from applying for more disaster loans.

Small businesses can also cover large losses by purchasing insurance for costly damages to property, inventory, and operations. But 75 percent of businesses are underinsured, and only 11 percent of small businesses impacted by disasters draw on insurance for support. 78, 79 Rising weather hazards have led private insurers to increase premiums, reduce coverage, or exit markets altogether.80 Standard policies often don't cover flood damage and may exclude other weather-related damages in areas with high risk.^{81, 82} Where private options are unavailable, small businesses may be able to access the federal National Flood Insurance Program or state-based insurers. However, these programs may cover less damage than private insurance and charge higher premiums

depending on location.⁸³ Even with insurance, coverage limitations, claims disputes, or missing documentation can result in payouts being denied, delayed, or lower than the business expected.84

While some small business owners we spoke to benefitted from insurance payouts, they noted the burden of rising insurance premiums. One owner reflected that current premiums would have made it difficult to start a business today: "Insurance has been a continued fiasco. You've seen prices increase substantially, it costs far more now to insure what we have in place than it did ten years ago ... if we were just starting it would definitely be a barrier to entry in business."

Smaller losses and gap finance: regional and community loans and grants

When large disaster loans or insurance are delayed or not an option for small businesses, loans and grants offered at the regional or community levels can help fill the gap. While these funds typically offer less than SBA loans and insurance, they can provide critical support with faster approval times and more lenient application requirements because of providers' closer proximity to small businesses.⁸⁵ These loans and grants can originate from a variety of sources, such as community development financial institutions (CDFIs), state and local governments, trade associations, financial service providers, and philanthropic organizations.⁸⁶

Multiple business owner interviewees affirmed that grants and loans from community-based organizations arrived relatively quickly and covered immediate expenses, filling gaps in funding and enabling re-openings. An owner in Texas who struggled to be approved for loans found that the only helpful safeguard after Hurricane Harvey was an emergency grant. She received this support from her business's workers' compensation insurance company, which offered emergency relief to its clients in the hurricane's aftermath.87

However, both current research and our interviews indicate these loans and grants are not always consistently available. Among small businesses that lose revenue from severe weather hazards,15 percent of impacted firms rely on non-governmental loans, including from CDFIs and other financial institutions. Just 9 percent use state and local government disaster relief funds, and less than 4 percent use nonprofit grants.88

After initial disaster funding runs out, it often takes time for community lenders to raise additional money, leaving businesses with fewer recovery options in the interim.⁸⁹ While CDFIs serve as a significant source of small business lending generally, they often have more limited banking infrastructure than larger banks, making them more vulnerable to service disruptions from severe weather hazards. 90, 91 A small business support organization we spoke with acknowledged that the CDFIs in their region did not have any products specific to disaster recovery. Instead, they tried to make their existing grant and loan products as accessible as possible to support recovery. However, even with these options, small businesses may be left out of local grant and loan opportunities that are limited to businesses based on their type, number of employees, and intended use of funds.92

Owners we spoke with also noted the uncertainty of when grants were available, which led to missed application deadlines or financing gaps between when funds were exhausted and new grants were announced. Application processing delays also created gaps in financing: Four years after applying to a state grant opportunity, one owner was finally notified her funds were available, but at that point she no longer needed them.

Rapid access from community supports

After severe weather, affected communities often come to the aid of small businesses to supplement other safeguards or fill gaps in accessing them. Owners with limited external financing options often turn to family and friends for recovery funding.⁹³ While peers can offer quick access and leniency, they often don't have enough to lend or gift for larger or repeated losses, loan terms may lack the clarity of formal financing arrangements, and the transaction can put personal relationships at stake. 94 Crowdfunding campaigns have been able to raise money for direct grants to pay for repairs and operating expenses, though less than 4 percent of impacted firms have turned to them.^{95,96} Crowdfunding platforms can distribute funds to weather-affected businesses quickly.⁹⁷ Small businesses have also supported each other by donating resources or labor.⁹⁸

Technical assistance may also be available from community organizations, which provide services such as information on loan and grant opportunities, loan application assistance, loss assessment, and planning for recovery and resilience.⁹⁹ These may be part of wraparound services tied to the distribution of grants and loans.100

Last resorts: personal savings, reduced income, and leniency from creditors

After experiencing disruptions such as extended power outages and loss of customers, some owners we interviewed were not able to receive safeguards when they needed them. They were either denied access or didn't believe they could receive them and didn't apply. With nothing to make up for the revenue shortfall, it was common to hear about costly financial sacrifices and asking leniency from people they owed expenses. For instance, a business owner in Arizona who lost clients due to a heat wave had to lower his own earnings to keep his business afloat: "I significantly reduced my own income. I wasn't paying myself a living wage." Many tapped personal savings, with one owner even withdrawing retirement funds to make payroll. Other owners negotiated temporary relief with landlords, utilities, and lenders for outstanding payments.

For one owner in Texas, personal financial sacrifices and debt burdens made her unable to recover her business from a power outage after a windstorm: "We had no power for seven days. I don't have any money, I've got all this debt from COVID ... I had to make the painful decision to close."

The following table summarizes key insights about the safeguards reviewed above.

Table 1. Benefits, Limitations, and Access Points for Financial Safeguards

FINANCIAL SAFEGUARD	ROLE IN RECOVERY	BENEFITS	LIMITATIONS	SOURCE
Business cash reserves	Immediate and flexible funds	Immediate–no terms or application	Hard to build with thin profit margins Not enough for larger expenses	Business savings and revenue
Loans	Larger losses that are difficult to save for	Small Business Administration (SBA) loans offer low interest and flexible terms Loans from large banks may have protection from service interruptions	Denials are high Potentially long processing times for SBA loans Long-term debt burdens	SBA Large private financial institutions
Insurance		Covers costly damages to property and operations	High premiums Private insurers exiting markets Standard policies often omit flood insurance Public options offer less coverage Slow claims process	Private insurance National Flood Insurance Program State-based insurance
Regional and community loans and grants	Smaller losses and gap finance	Faster than SBA loans and insurance Increased flexibility No debt obligations from grants	Inconsistent availability Eligibility requirements vary Smaller amounts may not be enough	State and local governments CDFIs Community organizations Financial services Philanthropy
Community and peer support	Rapid access from community supports	Quick funds Fills gaps in support Increased flexibility Technical assistance No debt obligations from grants	Availability and funding can be limited Not always predictable or sufficient Personal loans may lack clarity or strain relationships	Crowdfunding platforms Community organizations Family and friends
Personal savings, reduced income, and leniency from creditors	Last resorts	Can prevent business failure when no other options are available	Personal financial hardship Damage to credit scores Lost savings Accumulate deferred repayments	Own income Personal savings Relief via entities the business owner owes (landlords, utility companies, lenders, etc.)

More than the money: additional challenges and opportunities in accessing safeguards

Cognitive load and administrative burdens

Small business owners described the cognitive load of accessing and navigating support systems that required multiple, often complex applications and meeting various documentation requirements-all while attending to personal responsibilities and working to resume business operations. After experiencing a hurricane for the first time, it took a Texas owner a month to fill out an SBA loan application because of its complicated terminology, "I didn't understand the financials, so it made it really hard to do the application."

A business owner in North Carolina was also engaged in a months-long process of negotiating a claim with his insurance company, and in the meantime sitting with insured losses that were unrecovered. He noted, "Time is the pain point. Insurance has time, but we don't." These challenges often create significant delays that can impact a business or individual's ability to initiate the recovery process.

Centralized resource hubs

In the aftermath of a disaster, business owners we spoke with found it difficult to know what information or sources to trust and said that information was so scattered they often missed grant opportunities. A business owner experiencing a wildfire in California was overwhelmed by the volume of information, saying, "There were so many emails. That was the hard part-taking in the information and deciphering what was real and what was a scam."

Several business owners shared that centralized information hubs based out of trusted institutions or peer networks offered crucial support for learning about and applying to safeguards such as SBA loans and community grants. They noted how the most useful sources of information brought multiple resources in one place, including web pages offered by community organizations and in-person disaster resilience centers. A business owner in North Carolina remarked that a community bank tailored these resources to her sector specifically, which she found particularly helpful. Business owners we spoke to in Louisiana and Texas also shared how support groups with other entrepreneurs and local industry associations provided vital information and connections to sources of disaster relief.

Employers as safeguards for employees

Employees affected by severe weather often face serious financial hardship-late bills, eviction risk, and prolonged precarity without savings, alternate income, or aid like unemployment insurance or FEMA grants. One small business employee we interviewed endured months of instability after losing her job.

Conversations with business owners and employees revealed how businesses played a crucial support role, even if they couldn't meet all their workers' needs. Business owners were often invested in employee well-being, opting to pay employees before themselves. Some owners provided financial aid, such as fundraisers and emergency budgets, and in-kind support such as loaning cars. They also guided staff to available safeguards and rehired them once operations resumed.

Priorities for action to address gaps in resilience

As severe weather hazards grow more frequent and costly, small businesses face increasing threats to their survival. These risks not only undermine businesses themselves, but the strength of the U.S. economy and local communities. This report reveals that there is a mismatch between the disruptions businesses face and the safeguards they need to build resilience and ensure recovery. To help small businesses withstand severe weather hazards and grow in their aftermath, leaders at small business support organizations, financial service providers, government agencies, and philanthropic institutions can play a key role in spearheading research and solutions for the following priorities:

Raising awareness and funding for enhanced preparation. Research and interviews showed that small business owners are often unaware of what they need to prepare before severe weather hazards, or they need support to cover the significant financial costs of preparation. There are multiple priorities to raise awareness and target investment, including resources and technology to track local weather risks, disaster planning, pre-hazard financial protection and planning, equipment and strategies to protect operations and supply chains, resilient building upgrades, and digitization of operations to insulate against physical impacts.

Delivering centralized information through trusted, relevant sources. Business owners seeking support are often overwhelmed by the volume of information and fragmented set of options while simultaneously dealing with personal crises. To help owners in an emergency cut through the noise and get the support they need, disaster response efforts should deliver information about safeguards through trusted access points that compile available options in one place. From our interviews, we learned that organizations relevant to small businesses (such as local trade groups) and entrepreneur support networks can facilitate access to critical information.

Simplifying processes that lead to delays or denials of loans and insurance. Complex application processes are a major barrier to accessing financial safeguards in a timely manner. Efforts to improve efficiency among both public and private loan and insurance programs should identify opportunities to alleviate sources of burden, including heavy documentation requirements and complex application language.

Scaling up accessible and flexible financial products to fill funding gaps. While community loans and grants play a key role in recovery for small businesses that are underinsured or ineligible for larger disaster loans, many are unable to benefit from them because of intermittent availability, limits to funding, and eligibility requirements. Safe, affordable, and flexible products to fill ongoing gaps in safeguards should be provided at scale.

Sustaining financial support to reflect long-term regional recovery. We found that small businesses not only suffer a financial shock immediately after severe weather hazards but continue to experience revenue shortfalls as an impacted region rebuilds. Customer drop-off can last several months, but current financial safeguards are not always sufficient to support businesses during longer downturns. Providers across the current suite of financial safeguards can design programs, products, and financial planning services to reflect the pace of regional recovery.

Leveraging small businesses as a key safeguard for local communities. Our interviews revealed that during times of crisis, small businesses acted as a trusted and dynamic safeguard for both their employees and other businesses. Cross-sector disaster response efforts can support employers in this role and partner with them in efforts to stabilize communities after a severe weather hazard.

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