

# Flooding's hidden costs

Understanding  
the wide range  
of economic and  
social impacts

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**\$55,000+**

Average future flood costs for  
a previously flooded home over  
a 30-year mortgage

**\$53,000+**

Damage from just one inch of  
water in a 5,000 sq ft home

**25%**

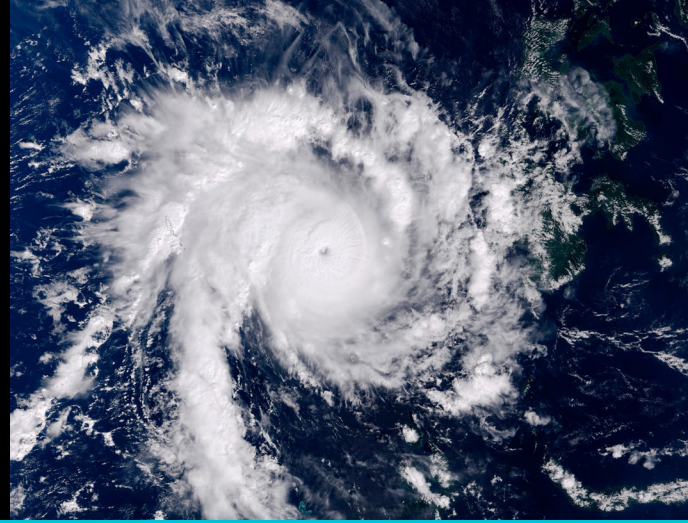
Increase in death rates after major  
flood events, compared to other  
major mortality causes in the U.S.

**2%**

Loss in home value when a  
home is re-zoned into a zone  
with higher flood risk



Flooding is the most common and widespread natural disaster around the globe.



According to the National Oceanic and Atmospheric Administration (NOAA), it is so pervasive a threat that it is essentially “experienced anywhere in the world that receives rain.”

Flooding everywhere is likely to be more frequent, more destructive and more costly in years to come as climate change continues to alter our planet’s physical systems and weather patterns.

Since 2000, global economic damages related to flooding events have cost more than \$735 trillion, and a 2024 report issued by staff members of the United States Congressional Joint Economic Committee estimates that the total cost of flooding in the U.S. alone could be as high as nearly \$500 billion per year in 2023 dollars.

Among these costs are the obvious ones: Repairing and rebuilding properties, roads, infrastructure, communities and even entire cities. But calculating the full range of impacts related to flooding is a more complex task – chiefly because flooding causes harm that goes beyond the immediately visible and measurable.

# \$735 trillion+

Global economic damages  
from flooding since 2000

# \$500 billion

High-end estimate of flooding’s total cost  
per year in the U.S. (in 2023 dollars)

In addition to property damage, a flooding event can lead to lingering business interruption, put intense strain on cities and communities, and threaten the physical and mental health of those affected. Individuals, businesses and communities that pursue mitigation efforts can help limit these economic, health and social harms by building resilience.

### **Not all flood-related costs are obvious**

Anyone who has ever experienced a major flooding event in their home or place of business is aware of the devastating impact it can have on a building and what’s inside of it. Walls, floors, foundations and basements can be damaged or even completely ruined in a matter of minutes, as can furniture, electronics, appliances, clothing and personal valuables. Repair and remediation work to address lingering mold or affected electrical and plumbing systems can drag on long after the floodwaters have been extracted from the premises.

**Derek Talbott**  
Senior Vice President



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These are some of the to-be-expected aftereffects of a flood, and their average costs can generally be anticipated in advance. But what about the unexpected impacts of flooding? For many homeowners and business owners, a major flooding event can entail other costs – many of them substantial – that may be more difficult to calculate.



## For homeowners

Floods often leave homes uninhabitable until water can be extracted, clean-up operations have been completed and measures to ensure health and safety have been taken. Among the potential costs and/or losses that homeowners should be aware of:

**The need for temporary housing.** While repair and remediation work take place, residents and their families may need to check into a hotel or a rental property – possibly for a lengthy period of time (a cost that may be covered by some flood insurance policies). If an entire community has been impacted, local competition for these temporary living quarters may be fierce.

**Potential loss of personal income.** Addressing the aftermath of a flooding event requires significant time and effort; in addition to the inconvenience factor, work schedules will necessarily be impacted as flood victims deal with repair and insurance issues.

**Loss of home value.** Just one inch of flooding in a typical 5,000-square-foot home containing possessions worth \$100,000 can cause more than \$53,000 worth of damage. Homes with a history of flooding are more likely to lose value over time, even if they have undergone extensive repairs and remediation. A [2021 Stanford University study](#) found that single-family homes, when re-zoned into a zone at higher risk for flooding, lost roughly two percent of their value.

**Higher risk of flood recurrence and/or related damages for future buyers.** Homes that have previously flooded are statistically more likely to experience future flooding than those that haven't. According to one [report](#) by the Natural Resources Defense Council, over a typical 30-year loan period for a mortgage the buyer of a previously flooded home can expect to incur more than \$55,000 in flood damages, on average.

## For business owners

Similarly, business owners should take into consideration certain business interruption impacts that go well beyond repair and remediation, and that may result in a suspension of economic activity:

**Infrastructural impacts.** If utilities – including electrical, gas and/or water systems – are rendered inoperative, offices may have to close temporarily and facilities may have to go offline. If roads and bridges are out of service, employees may be prevented from traveling to work.

**Disruptions to supply chains and distribution networks.** Even if employees and managers are able to travel to work, a flooding event can severely disrupt business by limiting the ability of suppliers and distributors to fulfill orders. Relatedly, road and bridge closures can greatly hamper logistics and make it difficult if not impossible for companies to move products and personnel to wherever they need to be.

**Displaced customers.** If a business's customer base is primarily local, an areawide flooding event is likely to force these customers to reduce or delay normal purchasing decisions.

For some businesses, losses stemming from business interruption can approach or even exceed losses stemming from physical damage to property and assets, according to [a report](#) by the risk management consulting firm Marsh McLennan. The authors observe that in the most severe cases, suspension of economic activity can lead to bankruptcy for small and medium-size businesses with low amounts of capital and insufficient business interruption coverage. They furthermore note that between 40% and 60% of U.S. small businesses that are forced to shut down after a disaster remain closed indefinitely.

When entire cities and regions become inundated with water, even large businesses that have been able to invest more heavily in resilient infrastructure aren't immune to flooding's negative impacts: Supply chain disruptions, customer displacement and employees' inability to get to work or their need to take time off can interrupt normal business operations considerably. One [2021 study](#) concluded that a single day of business interruption costs a firm, on average, half a percentage point of its annual revenue. In the aftermath of flooding caused by [Hurricane Harvey](#), 13.5% of businesses in the disaster area had disappeared entirely before the end of the following quarter. It's estimated that [fully a quarter](#) of businesses of all sizes that close after experiencing a natural disaster never reopen.

# Impacts on human health, the environment and communities



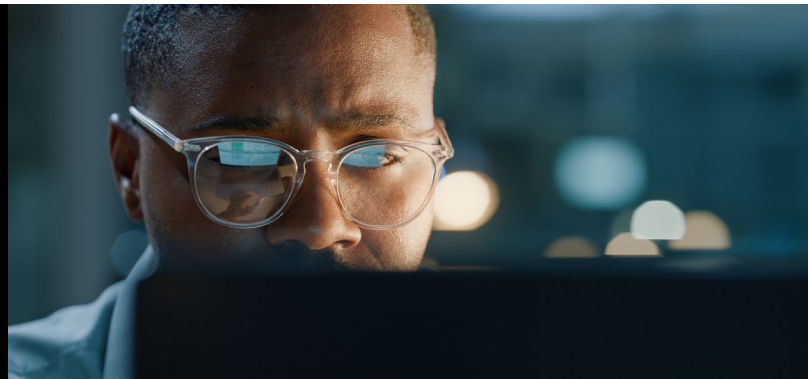
Floods can be deadly. A 2025 study published in the journal *Nature Medicine* concluded that large flooding events were associated with higher death rates – up to 25% higher, in fact – than other major mortality causes in the U.S. While most of these fatalities are due to drowning or other accidents, a 2023 [Yale School of Public Health study](#) found that flooding is also associated with an increased risk of mortality due to cardiovascular disease, respiratory disease and mental disorders, with adults below the age of 65 experiencing higher rates of non-accidental death from the respiratory and allergic effects of lingering dampness and mold, as well as from post-flooding stress and mental health issues.

The [Centers for Disease Control](#) has identified a list – by no means comprehensive – of dangerous items and substances that are frequently found in floodwaters and that can lead to injuries or the spread of waterborne diseases. They include downed power lines, human and livestock waste, large objects (such as uprooted trees or debris), wild animals (such as venomous snakes) and hazardous chemicals.

The lattermost of these substances are also implicated in flooding's negative impact on the environment. Along with allowing pollution from chemicals and hazardous waste to make its way into soil and water supplies, flooding events often lead to erosion, soil compaction, poor plant growth and reduced infiltration – all of which, in addition to making land less productive agriculturally, can increase land's vulnerability to future floods.

In a widespread flooding event, the mental and physical trauma associated with loss and displacement can end up affecting entire communities. The [World Health Organization](#) has highlighted the psychological strain of repeated flooding along with other climate change effects, any or all of which can lead to anxiety, depression and post-traumatic stress disorder. Those who are already socially or economically vulnerable may need to rely more heavily on neighbors, loved ones or local institutions for help, straining resources and budgets. Government responses to flooding, if deemed insufficient or too slow in coming, have the potential to [exacerbate the stress of victims](#), making those who need help the most that much less likely to reach out for it from official sources.

# Reducing risk by increasing awareness



Those who wish to implement or strengthen their flood-mitigation strategies have a number of resources available to them, including technological resources (of both the [low-tech](#) and [high-tech](#) variety), [data resources](#) and [insurance](#). But the most effective strategies require a thorough understanding of the full array of risks and costs associated with flooding – especially those that may not be self-evident initially.

That means staying up to date with the most current information about flooding and its impacts, and taking the appropriate measures to mitigate those impacts. Chubb works closely with [homeowners](#) and [business owners](#), drawing upon our unparalleled underwriting and risk management expertise to provide a range of products and services that can protect clients against flood damage and minimize losses. Together we're able to survey and navigate the entire spectrum of flood risk.

