CLOSING THE PROTECTION GAP FOR FLOOD RISK
HOW CAN U.S. COMMUNITIES BETTER GUARD THEMSELVES AGAINST THE DISRUPTIVE – AND VERY REAL – THREAT OF FLOODS?
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CLOSING THE PROTECTION GAP FOR FLOOD RISK

How can U.S. communities better guard themselves against the disruptive – and very real – threat of floods?

With each passing year, the nation’s collective vulnerability to flooding grows. The cost of these events continues to increase – as does the risk of property damage. According to data from First Street Foundation, annual losses on homes with a 1 percent chance of flooding will increase by 61 percent – to $32 billion – over the next 30 years.¹

Most homeowners lack the appropriate safeguards, putting their economic health – and the financial stability of their communities – at risk.

The solution to such a multifaceted challenge must be equally dynamic, with meaningful shifts in risk awareness, public policy, mitigation and resilience measures, and advancement of a private flood insurance market.

This paper examines the nature of flood risk, its economic consequences, how policymakers can help promote the importance of resilience and mitigation, and the role of insurance in alleviating the impacts felt by individuals and communities after a flood.

HOW PEOPLE UNDERESTIMATE FLOOD RISK

For many, the idea of catastrophic flooding brings up images of highly destructive storms: Katrina, Sandy, Harvey.

Yet, it is not just extraordinary events that have massive ramifications for homeowners and communities.

Just a single inch of water inside the typical American home can result in $26,000 in property damage and loss, according to information from the National Flood Insurance Program (NFIP or the Program). Another 5 inches of flooding doubles that figure.² It doesn’t take a flood of Katrina-like proportions to cause serious financial harm.

While storm surges occur on occasion, floods happen far more often and in many more places than people realize. Flooding is common, and it is not limited to the coast – it can occur along rivers or other waterways, in densely populated areas, and even in areas with very dry soil where the ground cannot absorb stormwater.³ Between 1996 and 2019, 99 percent of U.S. counties were impacted by a flooding event.⁴

Few hazards impact such a significant proportion of the population. And yet, flooding happens to be a peril that most Americans are ill-equipped for. By one estimate, only 5 percent of U.S. homeowners have flood insurance.⁵ According to the 2020 Triple-I Consumer Poll, 27 percent of homeowners with homeowners insurance said they had flood insurance, higher than credible estimates of the percentage insured made by the National Flood Insurance Program.⁶

As we’ll examine, there are several reasons why take-up rates for flood insurance are low. One of these is the proclivity to misunderstand the odds of a 50- or 100-year event, two popular measures for gauging the risk of a catastrophic storm. A 1 percent chance of a 100-year event occurring in a single year can create a false sense of security. The odds may seem low, but that doesn’t mean it won’t happen soon – or repeatedly. Consider the case of Southeast Texas that has seen multiple 500-year events in the last six years.⁷ It’s highly unlikely that Southeast Texas is an anomaly.
WITH EXTREME WEATHER, THE RISK ESCALATES

If it seems there have been more hurricanes in recent years, it’s because it’s true. The 2020 Atlantic hurricane season broke records, with 30 named storms and 12 that made landfall. It was only the second time that the list of storm names was completely exhausted since the inception of naming storms in the 1950s.\(^8\)

Something else curious is also happening – some storms appear to be moving more slowly. A 2018 study reported that tropical cyclone speed has decreased by 10 percent since 1949. In 2020, Hurricane Sally made its approach to the Alabama coastline at just 2 mph.\(^9\)

Slower storms mean more rain dumped on a smaller geographic area. Much of the extensive flooding that the greater Houston area experienced through Hurricane Harvey in 2017 was caused by days of heavy rain, as the storm lingered over southern Texas.

Changing weather patterns also increase the risk of flooding beyond coastal areas. In 2019, catastrophic floods along various rivers in the Midwest accounted for billions of dollars in damage and impacted 14 million people.\(^10\) Flooding from the Mississippi River lasted from spring through July, making it the longest flood event on record.

The catalysts behind these 2019 floods aren’t unusual: a particularly wet winter, heavy snow melt from Canada, a “bomb cyclone” in March, and a subsequent series of heavy rains from April through August.

It’s telling that, according to the National Oceanic and Atmospheric Administration, six of the 14 multi-billion-dollar weather events and disasters to hit the U.S. in 2019 were either floods or severe inland storms. Of those six events, there was only one hurricane and one tropical storm.\(^10\) As weather patterns change, the nature of flood risk will also shift away from the coast and spread across the country.

THE THREAT TO A COMMUNITY’S ECONOMIC WELL-BEING

In the event of a catastrophic storm, individual losses may mount in a way that threatens the continuity and economic health of communities.

For uninsured homeowners, the financial ramifications can extend beyond physical damage. Evacuation and displacement, along with the loss of reliable transportation and school/business closures, can mean the loss of a job, something few can go without.

At its most extreme, property damage may prompt people to abandon their homes altogether.

From there, the cascading effects of disruption to the community range from depressed economic growth in commercial zones to lower property values and a diminished tax base. In the case of the Lower Ninth Ward neighborhood of New Orleans, which suffered extensive damage from Hurricane Katrina in 2005, housing prices remain far lower than the cost to build them.\(^11\)

While national disaster aid may be available to cities, counties, and states, it’s often not substantial enough to cover the full cost of recovery or to prevent longer-term economic losses caused by factors like prolonged business closures and reduced tax revenues.
WHY AREN’T PEOPLE PURCHASING FLOOD INSURANCE?

It’s clear that the national flood insurance take-up rate of 5 percent to 27 percent does not reflect the number of households that will be at risk of a flood event in the years to come. The importance of flood insurance to the future well-being of homeowners and their communities is also clear. So why, then, does the flood insurance gap persist?

There are a multitude of reasons, but three stand out:

1. As noted earlier, people tend to misunderstand the risk. This can be illustrated by how people tend to engage with the Federal Emergency Management Agency’s (FEMA) flood maps. Those homeowners living in the highest-risk areas, as determined by these maps, generally are required to have flood insurance if they have a federally backed mortgage. This may lead to a binary treatment of the maps, where people living outside the designated highest-risk areas may believe that flood insurance is unnecessary, even though they may still be living in a highly vulnerable zone.

2. Some homeowners may not understand how flood insurance works. Flood insurance is not the same as typical homeowners’ insurance. While in most cases, floods are excluded from the catastrophes these policies generally cover, a homeowner can get separate coverage designed for flood risk.

   Better education helps – and yet, opportunities to inform homebuyers about flood risk may be missed. The topic of flood insurance may not come up in conversations with real estate agents. Insurance brokers may first prioritize traditional homeowners coverage, rather than simultaneously prompting discussion of flood policies. Lenders may not push for a level of coverage beyond their interest in the property. Or, if the property is outside a designated high-risk zone, they may not be obligated to convey that information.

3. The market for flood insurance is arguably not dynamic enough to serve a greater proportion of the population. There is a case to be made that more flexibility and variety with regard to cost, coverage, and limits would improve take-up rates. To better understand this, it’s worth looking at what is available through the government and how the private insurance market sits alongside it.

THE NEED FOR A MULTIFACETED APPROACH TO ADDRESSING FLOOD RISK

The value of insurance is recognized as a powerful tool for helping secure well-being after a flooding event. The divide between homeowners who would benefit from insurance and those who actually possess it presents an opportunity for residents and their communities.

Yet, insurance is only part of the solution. Educating individuals and communities about the prevalence of flooding, broadening the options for insurance in the marketplace, and taking steps to help better protect homes and communities from flood-related harm are additional components of an integrated solution for addressing this risk.

Closing the flood insurance gap is a formidable foundational step. It by no means is mutually exclusive to other efforts to bolster resilience – indeed, it stands to benefit as much from changes to public policy, such as more mitigative measures and rethinking land use and building codes. There are various nuances that must be addressed, requiring various stakeholders to play more direct and active parts.
THE NATIONAL FLOOD INSURANCE PROGRAM

The federal government’s NFIP helps secure the well-being of homeowners in the highest-risk areas, as designated by FEMA. Historically, the NFIP has subsidized policies to provide flood insurance at below-market rates for those in the highest-risk areas.

And while the NFIP serves an incredibly important purpose in protecting millions of policyholders, the Program’s high subsidies (offered in the absence of Risk Rating 2.0, discussed below) do not reflect the actual costs or risk-based pricing for providing that insurance coverage. In other words, the purchasers of these policies may be unaware of the actual risks of flooding because the artificially lower price of the policy hides some of that risk.

Without full risk-based pricing signals, homeowners may not be prompted to learn more about mitigation actions they could take to enhance their ability to protect their homes from damage. This includes elevating their homes or otherwise making improvements in line with the most recent building codes. Evaluating these preemptive measures is important because each property is unique in its vulnerability in a way that’s currently too granular to be captured on FEMA maps today.

Two houses on the same block may experience two different outcomes in a flooding event – perhaps one was a few inches below the flood line or had less natural drainage. Relying solely on the maps without examining specifics about the home, the local environment, or any previous flood or claims history may add to a false sense of security.

Additionally, misunderstanding of risk might promote lapses in coverage. Houses with federally backed mortgages must have flood insurance; homeowners who’ve paid off those mortgages don’t have the same requirement. It is possible these individuals and families won’t renew their policies without the requirement in place.

Further, policymakers in high-risk areas, such as in vulnerable areas along the coast, often face intense pressure to keep rates low, rather than accurate. This pressure, combined with the fact that development in such vulnerable areas is extremely attractive and largely not being discouraged, results with lower-risk people paying for those with a higher risk.

FEMA’s release of Risk Rating 2.0 slated for October 2021 is the most major change to the NFIP since the program was created in 1968. It aims to address many of these problems by seeking to align NFIP rates with actual risk. This will be accomplished via shifting to an entirely new rating system that looks at each property’s flood risk on an individual basis rather than relying on whether a property is within a high-risk flood zone, which may be inaccurate and outdated. While the implementation of the new rating system is expected to lower rates for some homeowners, it is expected to raise rates over time for homeowners with the greatest risk for flooding.¹²
MORE INSURANCE OPTIONS MEAN MORE PROPERTIES COVERED

The NFIP has been – and will continue to be – an important source of flood insurance. But the federal government is not the only source. Indeed, premiums from federal policies only cover a small portion of the $18.8 billion in flood damage that U.S. homeowners face, according to First Street.¹³

Historically, NFIP’s high subsidies for the highest risk areas have limited opportunity for private insurers to compete. Yet, alternative policies and prices may offer more choice and may better align with the needs and risk profile of an individual home.

NFIP policies are available outside the highest-risk areas. However, these policies are currently relatively limited in what they offer. As we noted at the start of this paper, the first few inches of water penetration are the most damaging. Additionally, most houses won’t experience total losses. Thus, a home may only need to be covered for a portion of the NFIP’s $250,000 coverage limit.

Private insurers can be well positioned to design new and innovative policy alternatives. Interesting concepts might include “basement” or “low-lying” policies that cover water damage only up to a certain number of inches in exchange for lower premiums. Giving consumers a wider range of policies to choose from based on their desired level, accurate risk profile, and type of coverage may help improve insurance take-up rates.

WHAT’S NEEDED TO PROMOTE A VIBRANT PRIVATE FLOOD INSURANCE MARKET?

Commitment to supportive public policy, alongside phasing in the use of actuarial, risk-based rates, is needed to facilitate the expansion of a private flood insurance market.

Existing regulation can make the creation and approval of new private insurance products an arduous process. Product innovation, such as the development of policies that are better aligned to a buyer’s true risk and interest, can be stymied.

Insurers need a broad range of policyholders from a variety of areas to spread risk, reduce policy costs, and ensure coverage for the widest range of markets possible. Legislative inflexibility can impact policy flexibility, which could threaten to reduce accessibility of flood insurance for individuals and communities.
This is where policymakers can play a crucial role, effecting changes that encourage competition and removing barriers to entry for product innovation.

One example of more meaningful and supportive public policy is through enabling greater flexibility in insurance policy forms and structures, especially in their qualification for certain federal definitions.

Flexibility enables insurers to develop products that best align with consumer needs. Streamlined filing approaches and timelines would help signal the importance of moving these products through the process, helping to accelerate their delivery to consumers.

The 2019 “final rule” changes to the Biggert-Waters Flood Insurance Reform Act of 2011 enable private lenders to accept certain flood policies from private insurers in lieu of NFIP policies. Additionally, the Department of Housing and Urban Development recently proposed rule changes that would allow homeowners in high-risk areas with federally backed loans to obtain private insurance, a deviation from the existing policy. Explicitly incorporating private policies that meet the federal “Discretionary Acceptance” definition underlying these rules would help accelerate the introduction of NFIP alternatives to the market.

For flexibility to exist in the market, insurers must also have flexibility with how they can rate and underwrite policies. A variety of rating approaches may support the development of products at different price points. Of course, these would need to be consistent with the fundamentals of insurance, safeguarding solvency and emphasizing rate adequacy consistent with risk-based pricing.

Finally, legislators can make major strides toward awareness by improving transparency about flood risk. One way to do this is through disclosure, making it easier to see whether a home has experienced flooding. Beyond this, insurers would benefit from greater access to federal data. The NFIP is one of the largest repositories of flood claims data in the nation; more data will help insurers offer better risk-adequate pricing on policies.

THE ROLE OF MITIGATION – AND HOW CAN PEOPLE AND POLICYMAKERS ACT?

Alongside insurance, mitigative action that enhances a community’s ability to withstand peril can pay dividends well into the future.

From the individual’s perspective, this means embracing the true nature of flood risk and making the choice to build more resiliently. This also means more consideration as to whether to live in a high-risk zone.

Construction methods and materials as well as location make an enormous difference in the ability of physical structures like homes and brick-and-mortar businesses to withstand perils. Addressing this reality touches on the lives of every person in the community. It means less disruption for families and more stability for communities.

For policymakers, additional work lies in addressing potential vulnerabilities that have arisen through past urban development and land use policies.
Land use policies have allowed for development in flood plains. The removal of vegetation and soil, as well as changes to how water is diverted, heightens the frequency of floods and increases a stream’s peak water levels. Analysis of multiple communities from the U.S. Geological Survey found that urban development exponentially increased the risk of flooding.17

Building codes in many inland areas are not reflecting flood risk. Structures that should be above flood level may be sitting well below it. This may especially be true in areas that haven’t previously experienced flooding but are newly at risk due to the changing climate (or increased frequency and severity of extreme weather).

Updating building codes and changing land use or zoning laws/regulations can help ensure that properties are being built in ways that more accurately align with evolving climate and flood risks.

Policymakers may want to look closely at the extent and impact of repetitive loss properties, finding a way to end the cycle of loss and reconstruction that has left many still vulnerable to repeat flooding.

Much-needed improvements to infrastructure will also reduce the risk of flooding over time.

**WORKING TOGETHER TO SAFEGUARD COMMUNITIES**

For policymakers and communities to succeed in closing the flood insurance gap and promoting resilience, dialogue, and collaborative action are in order.

Individuals within local governments who are tasked with disaster recovery or mitigation may be siloed from those in charge of financial and risk management or insurance. Opportunities to demonstrate the economic value and imperative of mitigation may therefore not be as strongly prioritized without coordination.

Given the long-term damage flooding can cause to a community’s well-being, all stakeholders – from individuals and local leaders to insurers, bankers, and government officials – must take an active role in resilience.

Federal aid takes time to distribute and isn’t always available to the individual homeowner. Yet even a modest flood policy may help make a difference between a path to recovery and prolonged turmoil.

Public policy decisions – from land use to urban development and from building codes to incentives for mitigation measures – are choices that may alter a community’s vulnerability to flooding. And when flooding occurs, having economic protection may benefit homeowners and their communities.

Flood insurance is one of the valuable tools individuals and communities must have to create a more resilient future. Together with careful planning and updated building codes, education and risk awareness, and robust mitigative activities, these policies go a long way toward building a stronger sense of security amid an unprecedented shift in how and where peril strikes. Now is an important time for all stakeholders to actively take steps to guard against the disruptive threat of floods.
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