

First Street Foundation Releases Nationwide Resilience Report Finding 25% of All Critical Infrastructure and 23% of Roads Have Flood Risk Which Would Render Them Inoperable

FOR IMMEDIATE RELEASE

Brooklyn (NY) - [First Street Foundation](#), the science and technology nonprofit that developed the [First Street Foundation Flood Model](#) and created Flood Factor, has released the first ever nationwide community level flood resilience report titled [“The 3rd National Risk Assessment: Infrastructure on the Brink”](#), highlighting the flood risk over a 30 year period for every city and county across the conterminous United States. The report calculates the risk of five key dimensions of community risk: residential properties, roads, commercial properties, critical infrastructure, and social infrastructure. Using the operational flood threshold for each building or piece of infrastructure, the Foundation was able to calculate each dimension’s specific risk of failure and aggregate those findings for every neighborhood, zip code, city and county, making it the most thorough and far reaching publicly available report of its kind.

The new study evaluates flood risk to critical infrastructure, such as utilities, airports, ports, and emergency services like police, fire, and hospitals, in addition to residential properties, commercial properties, streets and local roads, and social infrastructure like schools and government buildings. The findings are also incorporated into Flood Factor, providing Americans with an expanded scope through which to understand their personal flood risk as well as the vulnerability of their broader community.

“Our work aims to determine the amount of flooding that would render infrastructure either inoperable or inaccessible,” said Dr. Jeremy Porter of First Street Foundation. “By applying research on depth thresholds and comparing them to flood data and probability metrics, we can determine roughly the extent of flooding that would cause a road to be impassable to cars, or a hospital to be shut down.”

Roughly 25%, or 1 in 4 of all critical infrastructure in the country are at risk of becoming inoperable today, which represents roughly 36,000 facilities. Further to this, 23% of all road segments in the country (nearly 2 million miles of road), are at risk of becoming impassable. Additionally, 20% of all commercial properties (919,000), 17% of all social infrastructure facilities (72,000), and 14% of all residential properties (12.4 million) also have operational risk.

Over the next 30 years, due to the impacts of climate change, an additional 1.2 million residential properties, 66,000 commercial properties, 63,000 miles of roads, 6,100 pieces of social infrastructure and 2,000 pieces of critical infrastructure will also have flood risk that would render them inoperable, inaccessible, or impassable.

The highest concentration of community risk exists in Louisiana, Florida, Kentucky, and West Virginia, with 17 of the top 20 most at risk counties in the U.S. (85%) residing in these 4 states. Louisiana alone accounts for 6 of the top 20 most at risk counties (30%) and is home to the most at risk county in the country, Cameron Parish.

“As we saw following the devastation of Hurricane Ida, our nation’s infrastructure is not built to a standard that protects against the level of flood risk we face today, let alone how those risks will grow over the next 30 years as the climate changes,” said Matthew Eby, Founder and Executive Director of First Street Foundation. “This report highlights the cities and counties whose vital infrastructure are most at risk today, and will help inform where investment dollars should flow in order to best mitigate against that risk.”

Individuals can learn about the risk to their community for free at [Flood Factor](#). Cities, counties, and states can also leverage this data for further use by accessing it in bulk from [First Street Foundation](#).



First Street Foundation is a nonprofit 501(c)(3) research and technology group working to define America’s growing climate risk. The Foundation uses transparent, peer-reviewed methodologies to calculate the past, present, and future climate risk and economic impact to individual homes and properties across the United States. The Foundation’s data addresses an asymmetry of information in the U.S., empowering Americans to protect themselves from increasing risk associated with climate change.