Climate Risks to U.S. Housing: Estimates of Homes & Value at Risk

Realtor.com & First Street Foundation (2024) – *Nearly 48 Million Homes at Risk*

A recent **Realtor.com analysis (March 2024)**, using data from the nonprofit First Street Foundation, found that **almost 45% of all U.S. homes** are threatened by at least one form of severe climate-related hazard. This equates to roughly **48 million properties**, collectively valued around **$22 trillion**[1]. Key details include:

- **Hazards Covered:** *Flooding, high winds (hurricanes/tornadoes), wildfires, extreme heat, and poor air quality*. The study assessed "severe or extreme" risk levels for these perils on a property-by-property basis[2][1].
- **Scope:** First Street's climate risk data (with risk scores from 1–10) was applied to homes in the 100 largest U.S. cities and then extrapolated nationally. If a home had a top-tier risk in *any* one hazard, it was counted as "at risk"[2].
- **Findings: 44.8% of U.S. homes** (~48 million) face *"severe or extreme damage"* risk from at least one climate hazard[1]. In total these vulnerable homes are worth **nearly $22 trillion** (out of a ~$52 trillion total U.S. housing market)[1][3]. Homes with severe climate risk are found in every state, not just coastal areas, and this widespread exposure is already raising insurance costs and influencing home values[3][4].

Relevance: This analysis provides a broad, multi-hazard snapshot of U.S. housing risk. By counting any home with *at least one* severe climate risk, it highlights that nearly half of U.S. homeowners could face significant impacts (property damage, higher insurance, lower value) from **flood, fire, heat, wind, or smoke-related disasters**[1][5]. It underscores climate risk as a systemic issue for the housing market.

FEMA/CRS & CoreLogic (2021) – *Composite Hazard Risk Estimates*

Federal agencies and researchers have also quantified housing risk. A **Congressional Research Service report** (2021) cited data from CoreLogic (a property analytics firm) showing that about **35 million U.S. homes – nearly one-third of the housing stock – have "high risk" from natural disasters**[6]. Notable aspects of the **CoreLogic 2020 Climate Catastrophe Report** include:

- **Hazards Covered:** *Seven perils* – not only climate-related events (wildfire, inland flood, tornado/severe storms, winter storms, hurricane wind/coastal surge) but also geophysical ones (e.g. earthquake)[7]. CoreLogic combined these into a **composite risk score** for each property.
- **Methodology:** Using advanced catastrophe models, CoreLogic estimated the **average annual loss (AAL)** for each peril for ~105 million U.S. residential structures. These AALs were summed into a single risk index per home[7]. Homes above a certain threshold of annualized loss were classified as "high risk."
- **Findings: 35 million homes (~32% of homes)** received a "high risk" composite score – *"almost a third of the U.S. housing stock…exposed to high risk from natural hazards"*[6]. High-risk properties are concentrated in California, Texas, Oklahoma, Kansas, Nebraska, along the Mississippi, and coastal areas – reflecting areas with frequent multi-hazard threats[8]. Importantly, the analysis noted **"most homes in the U.S. have *some* risk"** from natural hazards or climate-induced events, even if not categorized as high-risk[9].

Relevance: The CoreLogic approach (used by FEMA's CRS) illustrates a **multi-hazard risk index** and yields a slightly lower estimate of at-risk homes (one-third vs. one-half of homes) by requiring a high composite loss potential. It underscores that **tens of millions of homes** face significant *cumulative* risk when considering all hazards together[6]. Unlike the Realtor.com/First Street study, this method included non-climate hazards like earthquakes and factored in **frequency and severity** of events, providing a holistic view of where risk to property is greatest.

First Street Foundation "Climate Insurance Bubble" (2023) – *39 Million Unpriced-Risk Properties*

In 2023, climate risk analytics firm **First Street Foundation** released its *9th National Risk Assessment* report (nicknamed the "Climate Insurance Bubble"). This study focused on properties whose **climate risks aren't reflected in insurance costs**. It found that **approximately 39 million U.S. properties** have **high risk of flood, wildfire, or hurricane wind damage** – risks that are currently *underpriced* by insurance markets[10]. Key points from this report:

- **Hazards & Scope:** Three major climate-exacerbated perils were analyzed – *fluvial and coastal flooding, wildfires, and severe wind (hurricane-strength gusts)*. First Street identified properties with substantial risk from at least one of these perils **today and over the next 30 years** (through 2053)[10][11].
- **Methodology:** First Street's peer-reviewed models (developed with engineers at Arup) simulate property-level hazard exposure and damage. They estimated each building's probability of being **destroyed or severely damaged** by flood, fire, or wind, and the expected economic losses, under current climate conditions and future warming scenarios[11][12]. Homes deemed **"high risk"** were those with

large annual loss potentials that are not yet reflected in homeowners' insurance premiums (due to legacy underwriting or regulatory caps).

- **Findings: 39 million properties** nationwide have major unpriced risk (i.e. facing substantial climate hazard damage that isn't fully accounted for in insurance rates)[10]. Within this group, **12 million** are outside FEMA-designated flood zones yet carry significant flood risk, **23.9 million** face severe wind exposure (e.g. inland areas prone to destructive gusts or tornadoes), and **4.4 million** are in areas with extreme wildfire likelihood (where on average 10+ structures could burn annually per ZIP code)[13]. An additional ~6.8 million properties already have such extreme risk that they've been pushed into state-run insurer-of-last-resort programs[14].

Relevance: This First Street analysis (a private/non-profit sector perspective) reinforces that **tens of millions of U.S. homes are at serious risk** from climate-related perils, even beyond recognized high-risk zones[13]. Its methodology highlights the *insurance implications*: as climate disasters worsen, many homes may become uninsurable or unaffordable to insure. The **39 million at-risk figure**, while slightly lower than Realtor.com's 48 million (due to focusing on fewer hazard types and a stricter "high risk" definition), is in the same order of magnitude – lending credence from another source to the notion that roughly one-third or more of U.S. homes face major climate disaster exposure[10].

U.S. Forest Service & Climate Central (2022–2024) – *Wildfire Risk to One-Third of Homes*

Looking at specific perils, **wildfire risk** has been mapped extensively by the *U.S. Forest Service (USFS)*. An analysis by Climate Central in 2024 (using USFS's *Wildfire Risk to Communities* data) reported that **about one-third of all U.S. homes** – roughly **48 million homes and residential buildings** – are located in counties with **"high" or "very high" wildfire risk** to properties[15]. Details:

- **Scope:** The USFS evaluated wildfire burn probabilities and intensity to rate each county's risk to residential properties (ranging from low to very high risk). Climate Central aggregated this data to national scale, focusing on the *geographic distribution* of wildfire exposure for homes[16][17].
- **Findings: One in three Americans (nearly 116 million people)** live in a county rated high or very high for wildfire hazard, and similarly about **48 million homes/structures** are in those high-risk counties[15]. Western states dominate these statistics: for example, **97% of California's population (38+ million people)** reside in wildfire-prone counties, and virtually all of California's 58 counties (56 of them) are classified as high-risk for fires[18]. Florida, Oklahoma, Texas, and several Mountain West states also have the majority of counties in high wildfire-risk categories[19][20]. Even states not commonly associated with wildfire have pockets of risk – underscoring that **all U.S. regions have some wildfire exposure**.

- **Impacts:** Homes in these zones face rising insurance premiums or policy non-renewals, mirroring the trends in wildfire-prone states like CA and FL. The Climate Central/USFS data doesn't directly monetize the exposure, but given that *nearly 20 million* of these homes are in California alone, the property value at stake easily reaches **trillions of dollars** for wildfire risk specifically. (For instance, separate insurance industry estimates put **11 major metro areas** as each having >$100 billion in real estate at high wildfire risk[21][22].)

Relevance: This government-sourced analysis focuses on **one disaster type (wildfire)** and shows a large slice of U.S. homes – ~48 million, coincidentally the same scale as the multi-hazard estimate – exposed to fire danger[15]. It adds context that **climate risks can be regionally concentrated** (e.g. wildfire in the West), but when aggregated still amount to tens of millions of homes. The **methodology (USFS risk model)** differs from First Street's property-level approach, instead classifying entire counties. This means it counts all homes in a high-risk county, which may overstate the count of individual properties directly adjacent to burnable land, but it's a useful **macro-level validation** that on the order of 30–50 million U.S. homes are in harm's way from *just one* climate-driven hazard (wildfire)[15].

Comparison of Estimates and Methodologies

The various sources – government, private sector, and academic – all converge on the conclusion that **tens of millions of U.S. homes, valued in the tens of trillions of dollars, are at risk from climate-related disasters**. However, each estimate's exact figures differ based on scope and methodology:

- **Overall Exposure vs. "High Risk":** Realtor.com/First Street's ~48 million figure cast a wide net (counting any severe/extreme hazard risk)[1], whereas CoreLogic's ~35 million and First Street's 39 million focused on the **highest-risk tier** of properties[6][10]. This explains why *nearly half* of homes (when including moderate-severe risk) might be exposed, but roughly *one-third* are at truly **extreme risk** of damage. All approaches demonstrate a massive scale of exposure – on the order of one-third to one-half of the housing market.

- **Hazard Coverage:** Estimates that encompass **multiple hazards** (Realtor.com and CoreLogic composite) yield the largest totals – unsurprisingly, since almost every U.S. home faces *something* (be it fire, flood, wind, or heat). By contrast, single-hazard analyses (e.g. ~48 million for wildfire risk[15], or ~14.6 million currently in 100-year floodplains[23]) show that no single peril threatens half the nation's homes – it's the **combined** risks that push the numbers so high. Multi-hazard models like FEMA's **National Risk Index** indeed confirm that **all states and territories have some level of natural hazard risk**, even if the type of peril varies by region. As one federal assessment put it, *"most homes in the United States have some risk of climate change-induced hazard events."*[9]

- **Methodological Differences:** Government and academic studies often use **expected annual loss or probabilistic modeling** (e.g. CoreLogic's AAL composite[7], or First Street's climate-adjusted loss simulations[11]) to define risk in economic terms. This ties risk to likely **financial impact** (important for insurers, lenders, regulators). In contrast, Realtor.com's analysis took a **categorical approach** – flagging any home in a severe hazard zone – which is intuitive for consumers but doesn't sum the risk (a home in an extreme flood zone counted the same as one in an extreme heat zone, despite different damage profiles). Despite these differences, both approaches show a consistent *order-of-magnitude* agreement on at-risk homes (tens of millions) and value (tens of trillions of dollars).

- **Value at Risk:** The **$22 trillion** figure from Realtor.com[1] represents roughly 40% of total U.S. residential real estate value, aligning with the ~45% of homes count. Other sources also highlight multi-trillion-dollar exposures: e.g. Zillow's 2025 report found **$33 trillion** in homes have "major" risk (split among $17T wind, $9T fire, $7T flood)[22][24]. Even just the **extreme segments** of risk carry huge value: homes at *extreme flood risk* are worth ~$2 trillion nationwide, and those at *extreme fire risk* nearly $450 billion[25]. These analyses underscore that **climate threats are putting a substantial fraction of the nation's wealth in jeopardy**. For broader context, global estimates suggest climate change could erode **~9% of world housing value by 2050** (~$25 trillion) if risks aren't mitigated[26] – a scenario that would reverberate through economies and financial systems.

In summary, **authoritative sources from multiple sectors corroborate the scale of U.S. housing at risk**: on the order of **40–50 million homes valued around $20+ trillion** are exposed to climate-related disasters in the present day[1][6]. The **methodologies differ** – from Realtor.com's real estate market lens to CoreLogic and First Street's insurance-focused loss modeling to USFS's hazard mapping – but they each illuminate a piece of the same big picture. Together, they paint a clear message: *climate change is a systemic threat to U.S. housing*. Virtually every region has significant exposure to natural disasters exacerbated by climate trends, and these risks are now quantifiable and visible in the data. This convergence of evidence from government, academia, and industry strengthens the credibility of the claim and highlights the urgent need for climate resilience measures in the housing sector[9][1].

Sources:

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