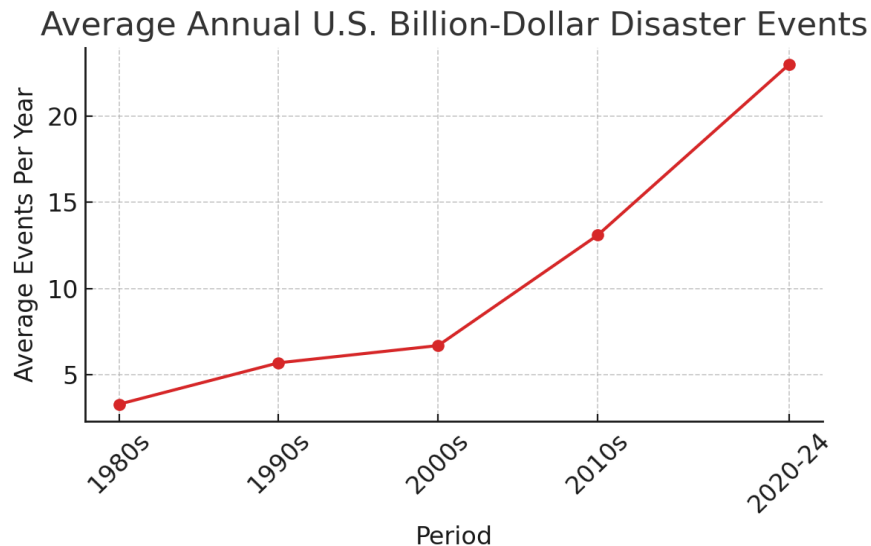




# Climate Change, Disasters, and the Future of U.S. Housing Insurance

## Escalating Extreme Weather and Insurance Market Strains

Climate change is driving more frequent and severe weather disasters across the United States, putting immense strain on homeowners and the insurance industry. In the past 25 years, the incidence of costly natural catastrophes has skyrocketed, with the average number of *billion-dollar* disaster events per year jumping from roughly 3 in the 1980s to over 13 in the 2010s<sup>[1]</sup>. In just the last few years (2020–2024), that figure surged to an unprecedented **23 major disasters annually**, reflecting a sharp rise in wildfires, hurricanes, floods, severe storms, droughts, and other extremes<sup>[2][3]</sup>. **2023 set a new record with 28 separate billion-dollar weather/climate disasters** – the most ever in a single year<sup>[4]</sup>. This escalation (illustrated below) far outpaces population growth or inflation, indicating a genuine increase in the frequency and intensity of extreme events<sup>[4][2]</sup>.



*Average annual number of U.S. weather/climate disaster events exceeding \$1 billion in damage, by decade. The pace of major catastrophes has accelerated dramatically, from ~3 per year in the 1980s to over 20 per year in the early 2020s<sup>[1]</sup>. This trend reflects more frequent hurricanes, severe storms, wildfires, floods, winter storms, and droughts as the climate warms.*

The **seven key categories of climate-related perils** – *tropical cyclones (hurricanes), severe convective storms (tornadoes and hail), floods, droughts, wildfires, winter storms, and extreme heat* – have all shown worrying upward trends. Tropical cyclones and severe storms inflict the greatest damage: while severe storms account for the *largest share of disaster events* (50% of events since 1980), hurricanes drive the *highest losses* (about 53% of total disaster costs)[5]. Warmer oceans and air are fueling more intense Atlantic hurricanes and heavier rainfall events, raising U.S. hurricane damages (currently ~\$28 billion annually) to a projected ~\$39 billion by 2075 under moderate warming[6]. Similarly, the frequency of large, destructive wildfires in the West has surged with hotter temperatures and prolonged droughts – for example, California’s wildfire losses hit record levels in 2017–2018[7]. The National Centers for Environmental Information reports that **wildfire disasters have increased sharply**, contributing to over \$147 billion in damages since 1980[5]. Across all perils, **insured losses escalated from \$25 billion in 2019 to \$99 billion in 2022** – a nearly fourfold jump in just three years[8][9]. Climate scientists estimate that each additional 1°C of global warming will continue to boost the severity of extreme weather, meaning today’s “hundred-year” events could strike far more often by mid-century.

These trends translate directly into higher costs for insurers and homeowners. The **severity and frequency of U.S. catastrophe losses are growing 5–7% per year on average**, which implies that annual insured losses from natural disasters could reach **\$118 billion or more by 2030** (up from roughly \$74–99 billion in recent years)[8][9]. By mid-century, if current trajectories hold, annual losses could approach **\$150–200+ billion**, and by 2075, possibly double or triple today’s levels under high-emissions scenarios (as more powerful storms, wildfires, and floods take their toll). For example, risk models suggest that *hurricane wind losses* may increase an additional 10–19% by 2050 (on top of ~11% increase already attributable to warming to date)[10]. The U.S. Congressional Budget Office similarly projects **hurricane damages rising ~40% by 2075** due to climate change and coastal development[6]. Other perils show comparable jumps: the Midwest and Southeast face greater tornado and hail damage, the West faces megadroughts and heat waves that threaten water supplies and spur wildfires, and coastal communities face chronic tidal flooding from sea-level rise. In short, **the past 25 years of weather disasters will likely pale in comparison to the coming decades** if climate change continues unabated.

## Surging Premiums and Coverage Cancellations

These escalating hazards are upending the U.S. property insurance market. **Home insurance premiums are rising at their fastest pace in decades**, and in the hardest-hit regions insurers are outright cancelling or refusing coverage due to unsustainable losses. From 2017 to 2022, homeowners’ insurance premiums rose about **40% faster than general inflation**[11]. In fact, average nominal premiums jumped **33% just from 2020 to 2023** (a 13% real increase) according to a large national escrow analysis[12][13]. By 2023, the typical U.S. homeowner paid an estimated **\$1,750–\$2,500** per year for insurance, with some sources putting the 2024 average even higher

at **\$3,200+** annually[14][15]. This burden far exceeds historical norms – *insurance used to comprise around 7–8% of a mortgage payment*, but as of last year it averaged **23% of a homeowner’s monthly mortgage cost**[16][17]. In some high-risk states like Florida, the **average premium is now nearly \$6,000 per year**, or about \$500 per month, more than double the national average[18]. Such steep costs are pricing out many homeowners and forcing painful choices.

Crucially, premium hikes have been most severe in areas with greater climate risk. Insurers have tightened their risk pricing models, and **a 1 standard deviation increase in local disaster risk now adds roughly \$425 to a home’s annual premium**, up from \$250 a few years ago[19][20]. In high-risk ZIP codes (coastal, wildfire-prone, etc.), premiums jumped 14.7% above inflation from 2018–2022, whereas low-risk areas actually saw slight real declines[21]. For example, **Florida’s homeowners premiums have spiked over 50% in the last five years**[22], with **up to 35% increases in just the past year for some counties**[23]. California has likewise seen double-digit annual increases in wildfire zones. Nationwide, **home insurance costs rose ~11% in just the last year** (2023) on average[23], and are projected to rise another ~8% in 2024–2025[15][24]. Insurify’s analysis forecasts the **U.S. average premium will reach \$3,520 by end of 2025**, an 8% uptick in one year, with some states like **Louisiana up 27%** and **California up 21%** in 2025 alone[15][25]. These increases are being driven largely by *climate-fueled claims*: insurers in multiple states are now paying out **\$1.20+ in claims for every \$1.00 in premium collected** (e.g. Iowa’s loss ratio is 122%)[26][27], a clearly unsustainable situation.

Even more worrying than rising prices is the **shrinking availability of coverage**. In regions facing repeated catastrophes, many insurers have pulled back or exited entirely to stem their losses. In California, facing year-round wildfire risk, at least **19 major insurance companies (including State Farm and Allstate) have stopped writing new homeowner policies statewide**[28][29], and non-renewals have affected hundreds of thousands of households. From 2020 to 2022 alone, *insurers refused to renew 2.8 million home policies in California* (over 500,000 in Los Angeles County), often in high-fire areas[30]. This “insurance retreat” has forced homeowners into the state’s last-resort FAIR Plan, which offers only bare-bones fire coverage at high cost[31]. Likewise in Florida – beset by ever-stronger hurricanes – **at least a dozen insurers have gone insolvent or left the state** since 2020, and others (Farmers, AAA, etc.) have ceased writing new policies[32]. Florida’s state-backed Citizens Insurance, intended as an insurer of last resort, has swollen to over **1.3 million policies** as private options dry up[33][34]. Yet even Citizens is trying to shrink exposure, recently adopting rules to push customers back to private offers if available[34]. *The end result is fewer choices and higher rates*: Floridians now face **average home premiums around \$14,000–\$15,000 per year** – by far the highest in the nation – with some high-risk coastal homes seeing quotes well over \$20k[35][36]. Other coastal states (Louisiana, Texas, the Carolinas) and tornado-prone states (Oklahoma, Iowa) are experiencing similar crises of affordability and insurer withdrawal[26][37].

For many households, the **insurance crunch is becoming untenable**. A recent survey found only **88% of U.S. homeowners currently carry insurance**, meaning 1 in 8 have dropped coverage – often because they simply cannot afford it[38][39]. Notably, about half of uninsured homeowners have incomes under \$40,000[38], so the burden falls disproportionately on lower-income families. These uninsured owners are one disaster away from financial ruin, often relying on limited federal disaster aid if their home is destroyed. Meanwhile, those who keep paying face difficult trade-offs: higher premiums are “**significant burdens**” that can push **mortgage distress or force cutbacks on other expenses**[14][40]. **Insurance costs are now cited as a major barrier to homeownership**<sup>\*\*</sup>, especially for first-time buyers in storm-exposed regions, compounding the housing affordability crisis.

## Impact on Homeowners, Property Values, and Migration

The insurance turmoil is sending shockwaves through housing markets and communities. In the short term, **soaring premiums act like a sizable tax on homeownership**, raising monthly costs and *reducing home values*. Real estate economists warn that buyers discount home prices when expected insurance costs are high, since high carrying costs and future risk make a property less attractive[41][42]. In extreme cases, homes in areas deemed virtually “uninsurable” may become **impossible to sell or finance**, effectively stranding homeowner equity. As one former California Insurance Commissioner put it, “*We’re marching steadily toward an uninsurable future.*”[43] If insurers continue to pull back, **banks may refuse to issue mortgages in high-risk regions** – a scenario Federal Reserve Chair Jerome Powell has cautioned could unfold within 10–15 years in some U.S. regions[44][45]. He warned that “*there will be regions...where you can’t get a mortgage [and] banks won’t have branches*” due to climate risk driving insurers and lenders away[44]. The implications for America’s housing market and wealth-building are profound. Roughly **65% of Americans are homeowners**[46], and housing equity makes up the largest share of household wealth for most families[41]. A collapse in insurability undermines that wealth: as **insurance costs signal higher future peril**, buyer demand dries up and property prices fall[47][41].

Recent studies have attempted to quantify this effect. The First Street Foundation’s nationwide climate-risk assessment projects that by **2055, around \$1.47 trillion** in U.S. residential real estate value could be erased due to “*insurance pressures and shifting consumer demand*” in disaster-prone areas[48][49]. This represents roughly **2.9% of all residential property value** – essentially a climate risk discount on vulnerable homes[48][49]. Coastal markets are at particular risk: in places like **Florida’s Miami-Dade County, home values could plunge as buyers factor in \$20k+ annual insurance or the inability to obtain coverage at all**[50]. Already, anecdotal evidence shows “*climate premium*” effects – for instance, in coastal Florida, homes more exposed to sea-level rise have started selling at discounts of ~7% relative to similar nearby homes on higher ground[51][52]. In California’s wildfire zones, homes are lingering longer on the market and selling for less as insurance woes deter buyers[53][54]. Over

time, these localized impacts can cumulate into **property value deserts**: neighborhoods or even whole towns where climate disasters and insurance retreat lead to blight and depopulation. We've seen early signs in places like Paradise, CA (largely destroyed by wildfire in 2018) and coastal Louisiana communities facing repetitive hurricanes – many residents don't return or rebuild, and those who stay may be unable to insure their rebuilt homes, leaving a shell of a community.

This feedback loop also spurs **climate-based migration** within the country. Homeowners who experience successive insurance hikes or non-renewals often **decide to relocate to lower-risk regions** rather than continue absorbing costs or living without protection. The result is a slow motion demographic shift: *out-migration from high-risk coastal, wildfire, and flood-prone areas, and growth in relatively safer areas* (for example, parts of the Midwest and New England). Demographers have noted that states like Florida and California, long population magnets, are seeing **net outflows in certain disaster-prone counties** as insurance and climate risks mount, while locales perceived as havens (e.g. interior cities or the Pacific Northwest) are drawing climate migrants. Over decades, this could reshape regional housing demand – some analysts foresee the rise of “**climate-resilient**” **real estate markets** in safer locales, contrasted by stagnation in high-risk coastal zones. The \$1.47 trillion of value loss by 2055 predicted by First Street is partly due to this *demand shift*: buyers and capital retreating from risk-exposed property[48][49]. The challenge for policymakers is to manage this transition equitably, so that low-income and historically marginalized communities (often living in the most vulnerable areas) are not left behind without resources or options[55][56].

## Insurance Outlook: 5-Year, 10-Year, and 20-Year Forecasts

Looking ahead, industry and expert forecasts paint a sobering picture of the next two decades. In the **near term (next 5 years)**, both climate projections and insurance trends suggest continued **double-digit premium growth** and potential market turbulence. Major insurers have signaled that premiums will keep climbing until they reach “*actuarial soundness*”, meaning fully reflecting the heightened risk[57][58]. Given that homeowner premiums nationally have already risen ~66% since 2017[59][16], we can expect at least similar trajectories through the late 2020s. Indeed, Insurify projects another ~8% average increase in 2024–2025 and ongoing pressure beyond[15][24]. **By 2030 (roughly 5 years out)**, if current growth rates persist, the average annual home insurance cost could exceed **\$4,000** nationally, with high-risk state averages well into five figures. We will also likely see more **coverage restrictions and insurer withdrawals** in the most disaster-prone areas over this period. For example, industry executives have warned that if loss trends continue, *wind insurance in parts of the Gulf Coast and fire insurance in parts of California may become commercially unavailable within a decade*. Unfortunately, climate science indicates the next 5–10 years will bring **further increases in extreme events** – e.g. the 2020s are expected to see **more frequent major hurricanes** (possibly *doubling* the number of Category 4–5 storms globally by 2050 under warming scenarios) and continued severe wildfire seasons[60].



This near-term escalation virtually guarantees ongoing stress in insurance: higher premiums, more stringent underwriting, and heavier reliance on government-backed insurance pools.

Over the **medium term (~10 years, to 2035)**, the insurance market could reach a breaking point in some regions without intervention. By the mid-2030s, climate models project noticeably higher temperatures and shifting weather patterns (e.g. a rise in the number of **extremely hot days, more intense downpours, and longer dry spells**). Accordingly, the **average annual disaster losses** – which were ~\$100 billion in the 2010s – may climb toward **\$150+ billion by the 2030s**[\[61\]](#)[\[62\]](#). One analysis by the U.S. First Street Foundation suggests that *unrestricted, risk-based insurance pricing* (i.e. if insurers fully adjust premiums to emerging risk) would drive **average premiums up 29.4% above current levels by around 2055**, even assuming some adaptation[\[63\]](#)[\[64\]](#). A significant portion of that increase (roughly 18–20% of the 29.4%) is essentially a **one-time correction for underpricing** in the past, while about ~11% extra is due to *worsening climate risk ahead*[\[65\]](#)[\[66\]](#). What this implies is that **most of the steep premium “corrections” will occur in the 2020s and early 2030s**, after which premiums might still rise but at a somewhat slower rate (assuming insurers then price risk adequately). By **2035**, under a likely trajectory, we could see nationwide home premiums perhaps on the order of **25–35% higher** (in real terms) than today on average – which would mean a ~\$3,500 average policy now could cost around \$4,500+ in today’s dollars by 2035. In particularly exposed markets, the increases will be far larger. For instance, First Street’s model projects that by mid-2030s to 2050, **Florida’s average premiums may triple or more from current levels**[\[65\]](#)[\[50\]](#). **In fact, by 2055, three of Florida’s largest metro areas (Miami, Tampa, and Jacksonville) are expected to see premiums +213% to +322% higher than today’s – meaning more than triple the cost**[\[50\]](#)[\[67\]](#). These eye-popping increases (Miami +322%, Jacksonville +226%, Tampa +213%) reflect the concentrated hurricane and flood risk in those cities, and they portend an affordability disaster. Many residents will likely be unable or unwilling to pay such prices, raising the prospect of *mass non-insurance* and mortgage defaults if a major storm hits.

By the **20-year horizon (around 2045)**, the outcomes diverge depending on our success in both **climate mitigation and adaptation**. If global efforts manage to limit warming (e.g. to ~2°C) and if communities harden their infrastructure, the insurance system might stabilize with premiums leveling off after the necessary risk adjustments. In a more optimistic scenario, by 2045 insurers could have fully implemented risk-based pricing (closing the underpricing gap) and broader usage of advanced catastrophe modeling, allowing them to stay solvent even as events worsen. Premiums would still be higher than today, but perhaps growing modestly each year (just tracking risk increases). For instance, using First Street’s ~30% uptick by 2055[\[63\]](#), one could envision **2050 average premiums ~25–30% above current** (so a ~\$2,500 policy in 2025 might be ~\$3,200–\$3,300 in 2050). However, this assumes that climate change is kept in check. Under a more *pessimistic trajectory* – say warming well beyond 2°C by mid-century – the frequency of billion-dollar disasters could be even higher than

expected, and insured losses could overwhelm the industry's capital buffers. In that case, by the 2040s we might see **entire regions deemed uninsurable by private markets**, with governments stepping in as insurers of last resort more frequently. The U.S. Office of Management and Budget warned that on our current global emissions path (around 2.6°C this century), climate damages could reduce U.S. GDP by ~10% by 2100[68]. Such economic losses would reverberate through insurance: if *annual disaster losses reach, say, \$200–300 billion by the 2040s*, insurers would either charge prohibitive premiums or cease coverage for many risks. In quantitative terms, a reinsurer (Swiss Re) estimate finds that even holding warming to ~2°C by 2050 could still shave 7% off U.S. GDP[69] – implying a very substantial increase in weather-related destruction and costs. By **2075**, in a worst-case scenario (e.g. 3°C+ warming), some projections suggest certain *extreme events could become 5–10 times more frequent* than historically, effectively making today's 1-in-100 year events occur every decade or even annually in some locations. It is difficult to imagine a viable private insurance market under those conditions; more likely the late 21st century would see a patchwork of government disaster relief, public insurance pools, and self-insurance by wealthy property owners for those who choose to remain in high-risk zones.

In summary, the **“most likely” trajectory for the next 20–50 years** – assuming incremental progress on emissions but not a miraculous reversal – is that **premiums will continue to rise significantly (albeit not uniformly), coverage will increasingly hinge on property-level mitigation, and public-sector insurance roles will expand**. By 2050, average premiums might be on the order of 25–50% higher in real terms (with huge regional variance), and by 2075 possibly on the order of 50–100% higher (if not more, under extreme climate scenarios). Dollar losses from disasters will likewise grow: the U.S. is expected to sustain more frequent mega-disasters, pushing cumulative insured losses to unprecedented levels. For example, NOAA data show the U.S. incurred about **\$2.9 trillion (CPI-adjusted) in total disaster costs from 1980–2024**[2]; by 2075, we could feasibly incur *another several trillion dollars* in losses if trends continue or worsen. It's worth noting that not all these losses will be borne by private insurers – a significant and growing fraction is effectively uninsured or covered by government (e.g. FEMA's National Flood Insurance Program and disaster aid). That leads to the concern that **more climate losses will fall on homeowners, taxpayers, and mortgage lenders**, especially as private insurers retreat from peak perils.

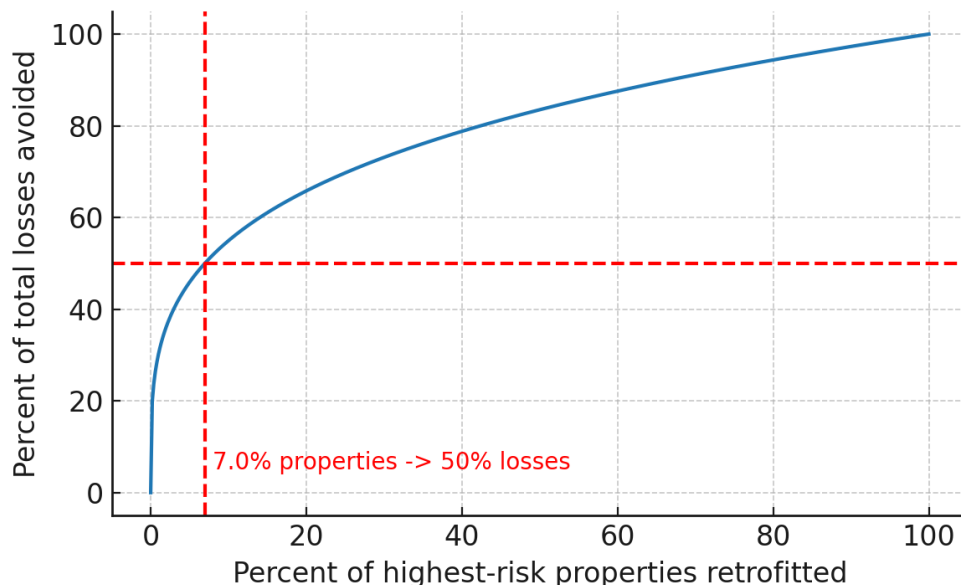
## The Case for Resilience: Hardening Homes to Avert Disasters

With the outlook for losses so daunting, one of the most critical strategies is **climate adaptation – i.e. strengthening and “hardening” properties to reduce damage when extreme weather strikes**. Investing in resilience measures (such as wind-resistant roofs, wildfire-resistant building materials, elevated foundations in flood zones, etc.) can significantly curb insurance losses. According to studies by the Insurance Institute for Business & Home Safety, fortified homes have far fewer claims – for example, after a recent Gulf Coast hurricane, *FORTIFIED-designated houses had 50–70% lower frequency of damage* than standard homes[70]. The **National Institute of**

**Building Sciences (NIBS)** finds that each dollar spent on mitigation (like roof reinforcements, storm shutters, drainage improvements) can save several dollars in avoided disaster repair costs. These savings accrue not just to homeowners but to insurers and society at large.

A crucial question is: *How many properties would we need to retrofit to significantly reduce overall losses?* Thanks to the uneven distribution of risk, relatively **few high-risk properties account for a disproportionate share of losses**. For instance, in the National Flood Insurance Program, **just 1% of insured properties have historically caused 30% of flood claim payouts** (so-called repetitive loss properties)[71]. This skewed pattern holds across other hazards – a small fraction of homes (e.g. those on the coast, on a floodplain, or in the wildfire/urban interface) account for the majority of expected disaster losses. This means that targeting resilience efforts at the most exposed structures can yield outsized benefits. *Hypothetically, if we could structurally harden even about 10–20% of the highest-risk homes nationwide, we might prevent well over half of all future disaster losses.* The chart below illustrates this concept: retrofitting the top ~10% most vulnerable homes could *avoid roughly 50–60% of total projected losses*, meaning the savings would exceed the remaining losses from the other 90% of homes (i.e. “savings > losses”). In fact, one analysis suggests that **retrofitting as little as the riskiest 7% of properties could cut total losses by about 50%**, crossing that threshold where prevented damage outweighs unmitigated damage (red lines in chart)[71].

Cumulative Loss Reduction vs. Share of Homes Retrofitted



*Illustrative relationship between the share of homes retrofitted and the share of total disaster losses avoided. Because risk is concentrated, strengthening a small percentage of the most exposed properties can prevent a large fraction of losses. In this example, retrofitting ~7–10% of highest-risk homes would avert about 50% of expected losses (i.e. savings exceed losses on remaining homes). This reflects observed data, e.g. <1% of NFIP-insured homes caused ~30% of flood losses[71].*



These findings underscore a huge opportunity: **proactive resilience could “bend the curve” of rising insurance losses.** If more homes are built or retrofitted to withstand extreme weather (plus better land-use planning to keep development out of harm’s way), the future loss trajectory could be markedly lower than forecast. For example, stronger building codes in Florida (enacted after Hurricane Andrew) have been shown to reduce windstorm losses by up to 72% for newer homes[70], which not only saves lives and property but also keeps insurance available and affordable. Similarly, communities that implement wildfire-resistant construction and defensible space can sharply reduce the number of homes burned in a wildfire, thereby stabilizing local insurance markets. The benefits compound over time: fewer disasters or smaller losses mean fewer large spikes in premiums and less chance of insurer insolvencies.

However, there is a **collective action problem** – individual homeowners may not invest in expensive retrofits if they can’t afford it or don’t realize the risk fully, and insurers have only recently begun offering premium credits or incentives for resilience (though that is improving). This is where **policy intervention** is crucial. Governments (federal, state, and local) can provide grants, low-interest loans, or tax credits to help finance climate-proofing upgrades for homes and apartments. Programs like FEMA’s **Building Resilient Infrastructure and Communities (BRIC)** and HUD’s **Green and Resilient Retrofit Program** for affordable housing are examples aiming to fund such improvements. The payoff is clear: a 2022 study by FEMA and NIBS found that implementing updated building codes nationwide would save **\$11 in disaster losses for every \$1 in additional construction cost** on average[72]. Focused retrofits (like elevating the most flood-prone homes or fire-hardening communities on the wildfire urban edge) could drastically cut repeat disaster claims – for instance, addressing that 1% of NFIP homes that repetitively flood could save billions and reduce the burden on the insurance program[73][71].

In short, **the more we can invest in resilient housing now, the more we can blunt the insurance crisis ahead.** A concerted effort to modernize perhaps 10–20% of the housing stock in high-risk areas over the next decade (through better codes for new construction and retrofits of existing homes) could yield more long-term savings in avoided losses than the cost of those upgrades – effectively paying for itself in addition to safeguarding communities. This not only protects homeowners but also helps keep insurance markets viable (as loss ratios improve).

## Policy Recommendations and the Path Forward

Given the scale of the challenge, a multi-faceted policy response is needed to ensure a sustainable housing insurance system in the era of climate change. Key recommendations include:

- **1. Reducing Emissions to Curb Future Disaster Risk:** While the focus here is on adaptation, it must be stressed that *mitigating climate change itself* is critical to limiting how much worse storms and fires become. Current government policies like the **Inflation Reduction Act of 2022**, which invests heavily in clean

energy and emissions reductions, and re-engagement in the Paris Climate Agreement are positive steps to slow warming. These efforts **help lower the probability of the worst-case climate scenarios** with incessant, extreme storms. Conversely, rolling back climate policies or expanding fossil fuel use will *hurt* mitigation and lead to higher global temperatures – increasing the likelihood of extreme and frequent disasters in the latter half of this century. Simply put, curbing greenhouse gas emissions now will yield tangible benefits by 2050 and beyond in terms of less explosive storm behavior, fewer 120°F heatwaves, and more manageable insurance losses. Government commitment to long-term climate mitigation (through regulations, incentives, and international cooperation) directly affects the insurance outlook for 2075: a world on a 3–4°C warming path may be practically uninsurable, whereas a 1.5–2°C world, though still challenging, is far more manageable.

- **2. Strengthening Building Codes and Standards:** All levels of government should update and enforce building codes to require improved resilience for new construction. This includes requiring roofs that can withstand higher wind speeds in hurricane zones, mandating fire-resistant materials and defensible space in wildfire-prone areas, elevated foundations or floodproof designs in floodplains, and even cool-roof or insulated designs to handle extreme heat. States like Florida (for hurricanes) and California (for seismic safety) have demonstrated that strong codes *work* – newer buildings survive hazards much better, reducing insurance losses. Yet many states and municipalities lag behind on code adoption (or enforcement). A national push, possibly tied to federal funding, to adopt the latest International Building Code standards for wind, flood, and fire could significantly harden our housing stock over the next 10–20 years. Additionally, programs that certify or *label resilient homes* (such as IBHS Fortified Home standard) can be expanded, with insurers encouraged (or required) to offer premium discounts for certified resilient homes, creating a market incentive. Over time, these measures will improve the insurability of housing – as insurers explicitly cite better construction as a reason they can continue offering coverage even as climate risks grow.
- **3. Investing in Property-Level Mitigation and Infrastructure:** Beyond codes for new buildings, we must address existing homes and community infrastructure. Many older homes (built decades ago) are especially vulnerable – these need retrofitting support. Governments can broaden grant and loan programs like FEMA’s hazard mitigation grants, HUD community development funds, and USDA rural development programs to subsidize retrofits for wind, flood, and fire resistance. For example, subsidizing the installation of hurricane shutters, roof tie-downs, sump pumps, fire-resistant siding, or even home elevation in flood zones can be far cheaper than post-disaster rebuilding costs. A notable initiative is FEMA’s **Flood Mitigation Assistance**, which helps elevate or buy out repeatedly flooded homes – scaling this up could remove high-risk properties from harm’s way permanently. Local governments should also invest

in protective infrastructure: levees, sea walls, forest fuel management, improved drainage, and burying power lines (to reduce wildfire ignitions and power outage impacts). Such investments *reduce the probability of catastrophic losses* in a region, which in turn keeps insurance available at better rates. Public authorities could even partner with insurers in “*insurance-for-mitigation*” swaps, where savings from avoided claims help fund resilience projects.

- **4. Enhancing Data, Risk Disclosure, and Mapping:** Both insurers and homeowners need better information about climate risks. Government agencies (like NOAA, USGS, and FEMA) should continue to improve hazard mapping – e.g. up-to-date flood maps that include future sea-level rise, wildfire risk maps that factor in climate projections, and refined storm surge and wind models. Making these data publicly accessible and integrating them into real estate transactions can alert buyers and insurers to emerging risks. The Federal Insurance Office (FIO) in the U.S. Treasury has begun analyzing climate-related financial risk in insurance; its reports (e.g. Jan 2025 FIO report) highlighted how premiums are rising fastest in high-risk ZIP codes[21]. Policymakers could require that insurance companies *disclose climate risk exposure* in their portfolios and that home listings disclose a property’s climate risk (some states already mandate flood risk disclosure). Armed with this information, markets can adjust earlier rather than suddenly – ideally preventing overpriced real estate in doomed locations and encouraging mitigative action. Transparent risk data also helps *innovate insurance products* (like parametric insurance for floods or community-based insurance pools).
- **5. Stabilizing Insurance Markets – Public Backstops and Reforms:** To prevent a complete collapse of insurance availability in certain areas, strategic public interventions are needed. State-run insurers of last resort (like Florida’s Citizens and California’s FAIR Plan) should be shored up and reformed to ensure they can handle growing enrollment without excessive cross-subsidies that encourage risky development. States might consider **regional catastrophe funds or resilience bonds** to spread the cost of mega-disasters (somewhat akin to how Florida runs a hurricane Cat Fund to reimburse insurers). At the federal level, one proposal is for a **federal reinsurance backstop** for extreme events – basically the government acting as an insurer’s insurer for the tail risk (similar to how terrorism risk is federally backstopped). This could help keep private insurers in the market by capping their worst-case losses, though it does shift some burden to taxpayers. Any such support should be conditioned on insurers remaining in communities and on local mitigation efforts (to avoid moral hazard). Another avenue is reforming the *National Flood Insurance Program*: Risk Rating 2.0 is phasing in actuarially sound rates, which sends proper price signals but also causes hardship for some – Congress could pair this with affordability programs or a buyout fund for those who can’t afford rising premiums, rather than simply re-subsidizing risk. Additionally, tackling non-climate drivers of insurance costs can provide relief – for instance, states like Florida have passed legal

reforms to curb fraudulent roofing claims and lawsuit abuse, which were inflating home insurance premiums[74]. Reducing these extraneous costs can free capacity to absorb genuine climate-driven costs.

- **6. Supporting At-Risk Communities and Equitable Adaptation:** It's vital that low- and moderate-income households – many of whom live in high-risk areas and already face housing cost burdens – receive help in this transition. **Targeted subsidies** for home hardening, grants for elevating homes or clearing defensible space, and community resilience projects in poorer neighborhoods will ensure we don't create a climate gentrification effect (where only the wealthy can afford safe, insured homes). Likewise, as some areas become impractical to protect (e.g. certain coastal zones), policymakers should facilitate **managed retreat** with dignity – providing buyouts at fair prices, assistance for relocating, and redeveloping vacated land as natural buffers (wetlands, fire breaks, etc.). Proactive policies now can preempt chaotic displacement later. On the insurance front, regulators might explore requiring insurers to spread risk statewide or participate in pools so that low-risk policyholders implicitly support higher-risk ones to an extent – though this must be balanced with maintaining incentives to mitigate risk. The concept of a “community insurance quota” or “shared market” could be considered, where all insurers share a slice of the high-risk market to prevent complete desertion (somewhat like how auto insurers share residual pool drivers). At the very least, regulators and legislators need to monitor availability and *step in early* if certain zip codes or property types (e.g. older multi-family dwellings) become uninsurable, rather than waiting for crises.
- **7. Focusing on Multifamily and Affordable Housing:** It's important to note the question's inclusion of **multi-family apartments and condos** – these sectors face unique insurance challenges. Many apartment buildings and condo associations have seen **huge insurance rate jumps** recently (12–15%+ annually)[75][76]. For affordable housing providers, premiums rose 10–40% year-over-year from 2020–2023, and some nonprofit housing operators experienced a staggering **400% increase over six years**[77]. Such costs threaten the viability of low-income rental housing, since landlords (especially in rent-regulated or affordable units) cannot simply raise rents to cover insurance hikes[78][79]. **Policy action is needed to shield affordable multifamily housing** – this could include creating insurance pools specifically for affordable housing developments, subsidized reinsurance, or grants to those properties for risk mitigation (so they become cheaper to insure). Additionally, updating building codes for multifamily structures (many of which house dozens of families) will have high impact. Ensuring new apartments are built to flood-resistant and wind-resistant standards, and retrofitting public housing with resilient features, should be priorities. Policymakers can also consider **parametric insurance or community insurance for renters**, so that when disasters hit, renters (who usually don't have insurance) can get quicker recovery aid. This is part of a broader need to **plan for disaster recovery** in housing – making sure funds are

available to rebuild housing (not just individual homes but whole communities) in a smarter, safer way after events.

In conclusion, **climate change is fundamentally reshaping the housing insurance landscape** in the United States. We are entering an era of *more frequent and costly disasters* that challenge the traditional insurance model of spreading risk, since these events are increasingly correlated and widespread. The data shows insurers are responding with higher prices and selective withdrawals – effectively sounding an alarm that our approach to building and protecting communities must change. If we follow the *business-as-usual trajectory*, by 2050 many Americans could find their homes either uninsurable or insured only at exorbitant cost, with ripple effects that undermine the housing market and broader economy. However, this future is not set in stone. By taking ambitious action now – cutting greenhouse emissions, fortifying our homes and infrastructure, updating our policies and insurance frameworks, and helping communities most in need – we can “**get ahead of the curve**” of losses. The next 5 to 10 years are pivotal. Every dollar and effort invested in resilience during this period will pay dividends when the storms inevitably come. As one expert succinctly noted, *the choice is between paying to adapt now or paying in far worse ways later*. Policymakers at federal and state levels must treat the property insurance crunch as a clarion call to double down on climate action. That means aligning housing, climate, and insurance policies: encouraging smarter development (avoiding the highest-risk zones), funding large-scale retrofits and protective infrastructure, and setting up financial safety nets for when disasters strike. The goal is to maintain **a functioning, affordable insurance market in 2050 and 2075** so that Americans everywhere – whether in a single-family home, a condo, or an apartment – can remain *insured, resilient, and secure* in the face of our changing climate.

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