Housing for havens: Smart growth strategies for climate resilience

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WHO WE ARE

Smart Growth America envisions a country where transportation, housing, and development choices create communities that are healthy, prosperous, and resilient—no matter where you live or who you are. We empower communities through technical assistance, advocacy, and thought leadership to realize our vision of livable places, healthy people, and shared prosperity.

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Executive summary

As extreme weather events, including floods, severe storms, wildfires, extreme heat, and droughts become more frequent and more intense, more Americans are likely to experience the devastating effects of climate disasters. These events can cause long-lasting damage to communities, destroying homes and businesses, impairing critical infrastructure, and, importantly, forcing or inspiring the relocation of residents.

Many Americans have already been displaced by climate hazards. The number of climate-displaced people will likely grow dramatically as climate impacts continue to wreak havoc on communities, including by increasing housing and insurance costs. Socially vulnerable groups, more exposed to climate hazards and with less capacity to recover, are particularly affected by these events. Those with greater economic mobility may also choose to relocate.

While nowhere is truly safe from climate-related events, areas with relatively low climate risk will likely see an influx of climate-displaced people as this population shift occurs. Some communities have already identified this trend and self-branded as climate havens in an effort to attract economic development, investment, and new community members. Climate haven communities must take immediate action to prepare their communities for this change, both to better accommodate climate-displaced people and to protect their own socially vulnerable residents from displacement as economic conditions change.

To do so, this report recommends that climate haven communities:

Prioritize pro-housing initiatives that connect housing, transportation, and amenities

Strengthen social infrastructure to support new and long-time community members

Recognize & prepare for climate hazards

Flooding in Montpelier's historic downtown. Source: SGA

Flooding in Vermont.
Source: Nicholas Erwin on Flickr.

By building from these recommendations, climate haven communities can alleviate local housing shortages, foster community building, and reduce the impacts of climate change on residents. This work should both support socially vulnerable current residents and facilitate the arrival of climate-displaced people, as both groups may struggle to contend with high housing costs, a lack of opportunities for community building, and ongoing exposure to climate hazards.

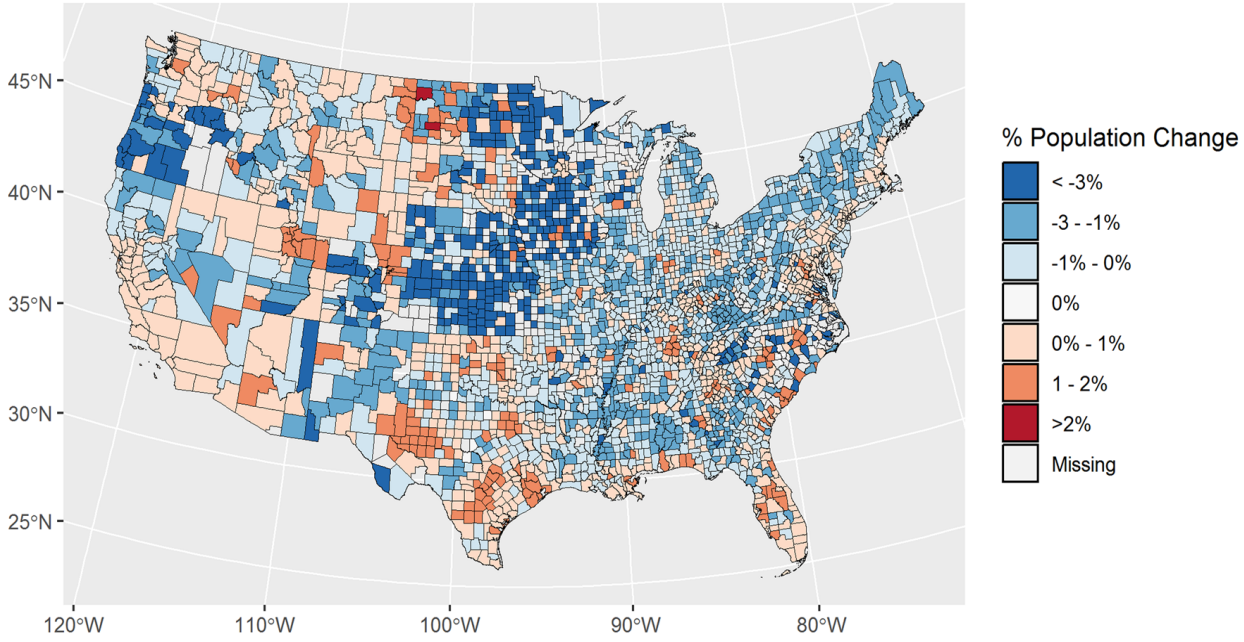
While addressing these challenges is especially important for climate haven communities, many communities across the country are already experiencing the effects of high housing costs, a lack of social cohesion, and increased exposure to climate-related events.

This report highlights relevant policies from around the U.S. to help guide climate haven communities as they implement these three recommendations, helping to build more prosperous and resilient communities for all.

Climate change is changing where we live

Each year, the U.S. incurs $150 billion in direct losses due to extreme weather-related events.[1] Damages to residential, commercial, and municipal buildings; to public infrastructure, such as roads, bridges, levees, and power lines; and to other assets, including crops and livestock, distrupt local economies and household finances. As global temperatures continue to rise and extreme weather events intensify and become more frequent,[2] and as development continues in high climate-risk areas,[3] these risks are only expected to grow.[4] **A growing number of Americans are taking note and are actively assessing vulnerability to extreme weather and climate change preparedness in their choice of where to live.**

Annualized projected population change with climate consequences, 2023-2053



Estimated annual population change 2023-2025 including climate-induced displacement. Source: First Street Research.

Nearly a third of Americans recently surveyed by Forbes cite climate change as a factor in their decision to move,[5] and more than 80 percent ofprospective homeowners recently surveyed by Zillow cite climate risks (such as floods, wildfires, extreme temperatures, hurricanes, and drought) as a consideration when looking for a new home.[6]

Today, information on climate risk is included in property listings from popular real estate search engines like Zillow and Redfin, complete with risk scores, interactive maps, and insurance requirements.[7] This parcel-level data considers a property's vulnerability to climate risks like flooding, fire, and extreme heat, and is especially critical for homebuyers, considering that significant exposure of homes to climate hazards is widespread across the U.S.

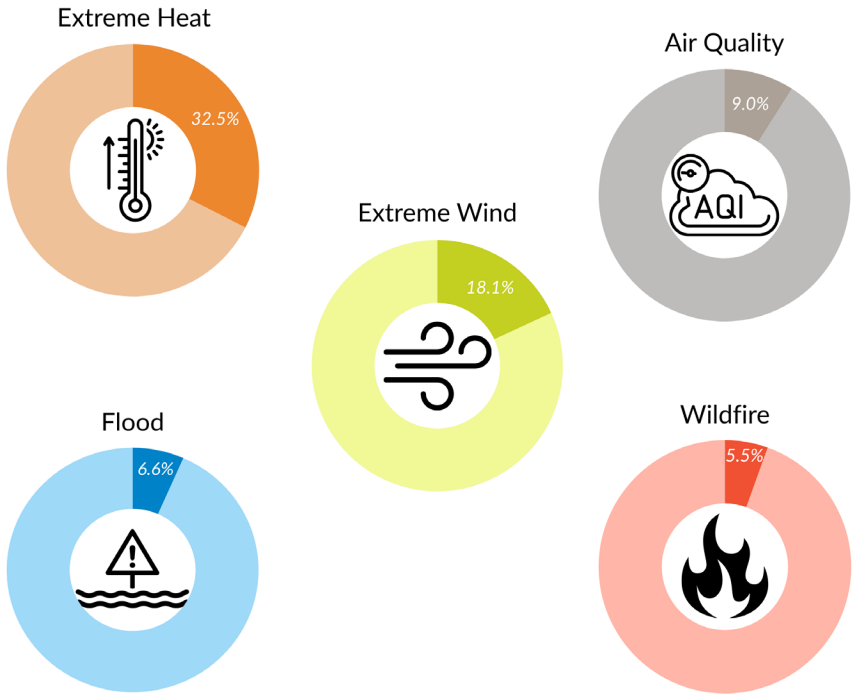
Climate-induced displacement has already become the norm in many parts of the country. No longer able to keep pace with rising rents and insurance premiums or lack of coverage or rebound from financial and personal losses associated with extreme weather, many are leaving their hazard-prone communities for homes with greater security and economic opportunity, experiencing losses to wealth-building, culture, and health in the process.[8] These relocations can occur nationally, regionally, or even within a metropolitan area between neighborhoods of different elevations or levels of coastal or riverine exposure.

While most disaster-related displacement is short-term, displacement related to slow-onset climate change may be more permanent and large-scale.[9]

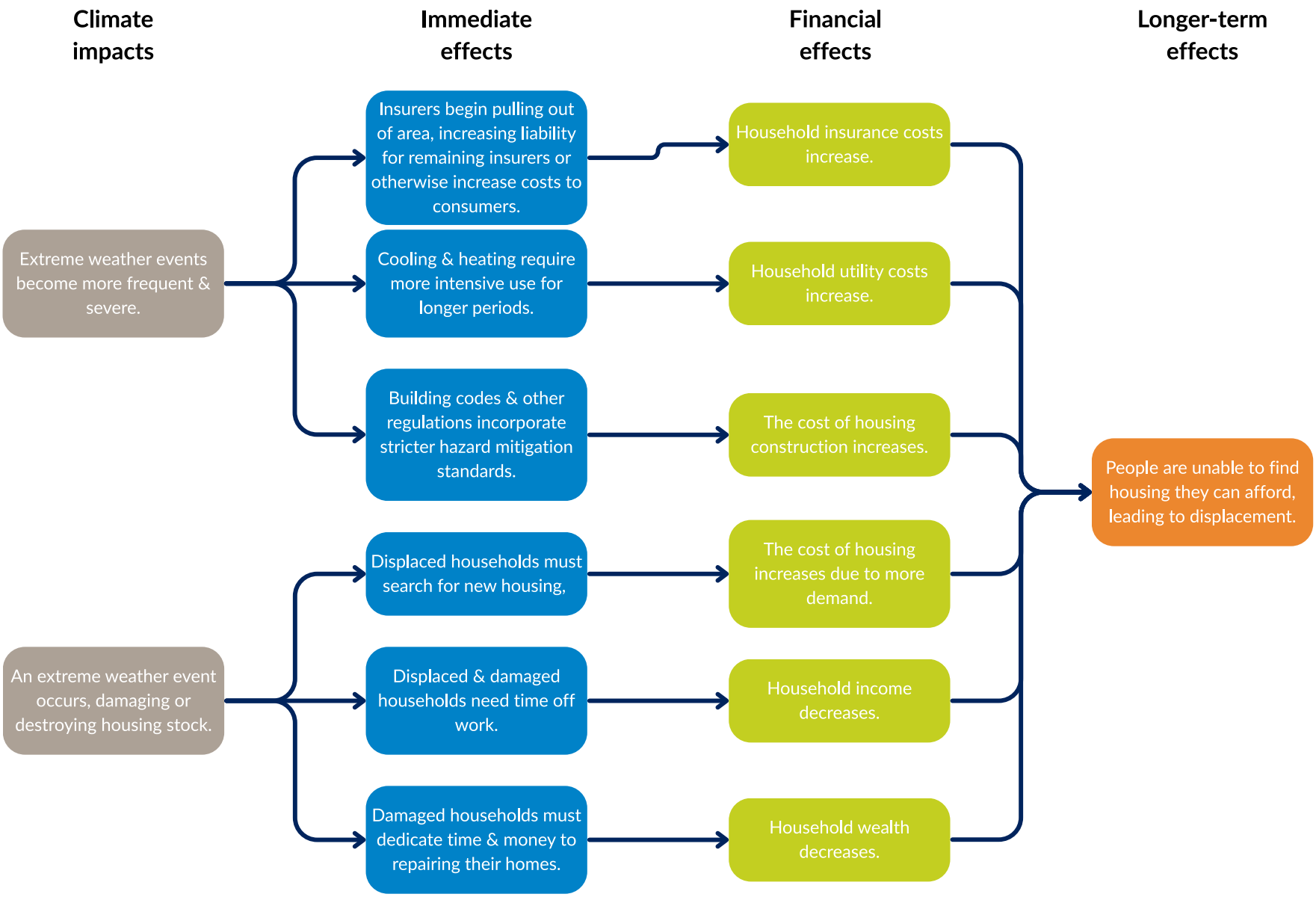
By 2055, 55 million Americans are predicted to voluntarily relocate within the U.S. to areas less vulnerable to climate risks.[10]

The coming population shift is predicted to be "the largest migration in North American history" and will place new demands on housing, infrastructure, and institutions. **Will climate-displaced people be able to find refuge in the communities they move to?**[11]

In 2024, 44.8 percent of homes in the U.S. had either a severe or extreme risk of experiencing a climate hazard.[12]



Climate events can have direct and indirect impacts on communities, including impacts to housing access and affordability



Who's at risk?

The impacts of climate change, including climate displacement, are not felt equally. People with lower incomes or less social standing are often more acutely impacted by environmental hazards. In 2023, for example, more than one-third of American households struggled to cover an emergency expense of $400[13]—these households and many more would be far more impacted by the likely damage or lost time at work they'd experience due to a flood, fire, or other weather event. As a result, the intersection between factors such as income, age, and health and relative climate risk can be valuable indicators for how people experience climate displacement and how policymakers should prepare.

To help stakeholders, including advocates, urban planners, municipal and state leaders, community-based organizations, and elected officials, better understand the challenges their communities may face as climate displacement becomes more common, Smart Growth America developed a climate mobility framework by overlaying social vulnerability and climate risk. Communities, based on their relative standing for these two measures, can be grouped into one of four categories.

A community's social vulnerability refers to how it experiences and recovers from disaster impacts. Characteristics like average income, senior population, racial/ethnic minority population, or living situation affect a community's ability to prepare for and recover from disasters. For example, communities with lower incomes often have fewer financial resources to enact mitigation strategies or to rebuild after a disaster; as a result, disasters are likely to be more impactful for this community than for one with a higher average income.

Climate risk refers to a community's likelihood of experiencing a climate hazard like a flood, wildfire, tornado, or drought. Communities located along coasts or riverbanks likely have higher flood risks than those further away from water, and those located along the wildland-urban interface are similarly more likely to experience a wildfire. Additionally, some communities have installed infrastructure that can mitigate the impact of climate hazards, like those with levees or seawalls that reduce the risk of flooding, and so may have lower climate risk. Individual households and buildings are also likely to face different levels of exposure depending on building design and location within a community.

Much of this report focuses on **vulnerable & lower-income** communities that are likely to experience climate displacement, as well as **safe & lower-income** communities that may face higher property costs and displacement pressures from a population influx. This report aims to inform policymakers on how to best prepare for the arrival of the **vulnerable & lower-income** group to their communities while also protecting the existing residents belonging to the **safe & lower-income** group.

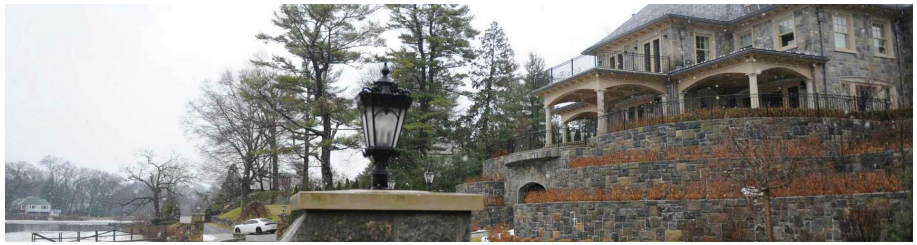
Vulnerable & higher-income communities experience high climate risk and low social vulnerability. They have the resources to remain in place, mitigating and adapting to changing environmental conditions. As they have more financial resources, they can relocate more easily, and, should they choose to relocate, may become responsible for displacing socially vulnerable groups in their new communities, also known as "climate gentrification."

Three multimillion dollar homes on a cliff appear at risk of falling into the ocean.
Source: Allen J. Schaben.

Vulnerable & lower-income communities experience high climate risk and high social vulnerability. These groups may not have the financial resources to implement mitigation or adaptation strategies, so are most likely to be displaced by environmental hazards. If they relocate, socioeconomic disparities in their new communities may pose barriers to locating a new home and/or community integration.

The growing threat of catastrophic flooding in rural Amerca.
Source: Federal Reserve Bank of Cleveland, OH.

Safe and higher-income communities experience low climate risk and low social vulnerability. They are unlikely to experience climate displacement, However, they may erect significant barriers to entry that make it difficult for climate-displaced people to become members of their community.



A private neighborhood in Greenwich, CT.
Source: Tyler Sizemore

Safe & lower-income communities experience lower climate risk, but higher social vulnerability. While they are also unlikely to experience displacement from climate events themselves, they may be susceptible to changing economic conditions, such as increased housing costs and displacement risk, spurred by the arrival of wealthier newcomers.

151 unit development in a neighborhood in Superior, WI.
Source: Superior Housing Authority.

Where will they go?

As climate events become increasingly frequent and intense, more and more communities are experiencing property damage along with health and human impacts. Some regions that may appear to be relatively insulated from threats like flooding or wildfires may still experience climate impacts to households in particular locations or see an effect on the regional economic base.

Meanwhile, "climate havens"—areas with relatively low climate risk, which could accommodate people fleeing climate impacts —have been widely discussed, but few have proven to be as secure as speculated.[14]

In many places, elected officials, economic development agencies, urban planners, and other leaders have declared their communities to be climate havens. U.S. cities like Duluth, Minnesota, Buffalo, New York, and Cincinnati, Ohio, promote their relatively mild climates, abundant freshwater access, and lower risk of wildfires, hurricanes, and extreme heat as advantages as communities fight to protect their residents from climate impacts.[15] By branding themselves as climate havens, they aim to attract new residents, boost economic development, and prepare for a future where more people will be forced to move due to extreme weather.

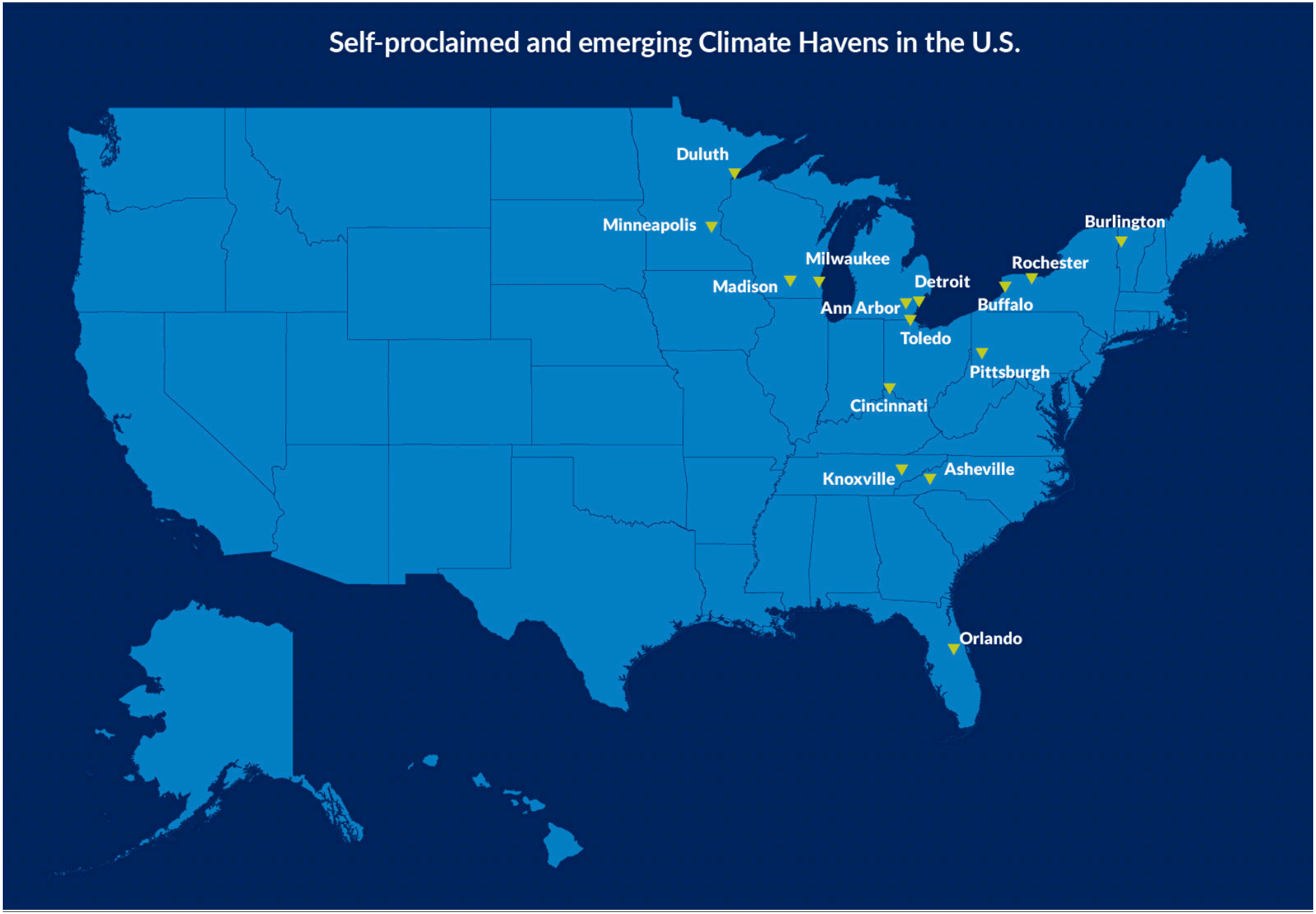
Vermont, a state heralded as a climate haven for its cooler temperatures, inland location, protection from tornadoes and earthquakes, and abundant access to natural resources, had its climate-haven moniker tested when extreme flooding impacted the state capital and other communities across the state in 2023. The particularly wet summer brought flash flooding and riverine flooding to the historic downtown area of Montpelier, the state capital, severely damaging infrastructure and small businesses, and leaving many homes uninhabitable.

The nearby town of Barre also saw damage to homes and businesses, mudslides, and damage to regional roads.[16] With even this unnamed rain event causing such damage, it's unclear how the region would fare in more extreme weather events or after repeated flooding.

In the following year, extreme flooding in Asheville, North Carolina, further illustrated that climate and weather-related threats are possible everywhere, even in places considered to be out of harm's way.

This Blue Ridge Mountain community, known for its progressive climate agenda, welcomed many Americans relocating from the North Carolina coast following significant damage during the 2017 hurricane season. But it, too, faced difficult-to-manage climate risks, particularly inland flooding and landslides.[17] When Hurricane Helene struck in 2024, 214 people lost their lives. Financially, the community experienced an estimated $50 billion in direct losses—but that's likely just a fraction of the actual losses for the community, where 95 percent of properties were uninsured.[18]

As recent examples like these demonstrate, no community is fully climate-proof.[19] However, some areas of the country do face fewer climate risks and may experience population growth due to an influx of people from more hazard-prone areas. While these climate havens still face climate risks themselves, they must pursue strategies to prepare for this population growth sustainably and resiliently.



Jacobson, L. (2022, April 21). Americans are fleeing climate change — here's where they can go. CNBC. https://www.cnbc.com/2022/04/21/climate-change-encourages-homeowners-to-reconsider-legacy-cities.html

Smart growth strategies for climate havens

Smart Growth America's work in this report responds to growing aspirations around climate havens, pulling from existing research on climate resilience and adaptation, land use planning, economic development, and urban design to create a framework for communities navigating population growth and development due to the arrival of climate-displaced people. In order to be ready for these new community members, climate havens need to proactively plan for growth and recognize the vulnerabilities they may face.

These are:

1. Prioritize pro-housing initiatives that connect housing, transportation, and amenities

2. Strengthen social infrastructure to support new and long-time community members

3. Recognize & prepare for climate hazards

This report intends to provide guidance and build local and regional capacity for aspirational climate havens—cities and states that wish to improve preparedness to receive climate-displaced people. Targeted to advocates, urban planners, municipal and state leaders, community-based organizations, and elected officials, we share three recommendations for aspirational climate havens.

While these recommendations are intended for aspirational climate havens planning for population growth, they are also relevant to other communities planning for future population growth.

The growing intensity, frequency, and costliness of extreme weather events, coupled together with the ongoing housing crisis and the upcoming climate displacement of millions of Americans, necessitates coordination across multiple levels of government and long-term investments in climate resilience, housing, and fair opportunity.

In the absence of this preparation, both climate-displaced people and the receiving communities will suffer, particularly socially vulnerable populations, who, on the basis of wealth, race, and age, face more significant challenges in preparing for, responding to, and recovering from disasters.

A new framework for aspiring climate havens

To help communities assess their progress as climate havens, Smart Growth America created the framework below. The framework highlights key strategies that communities can use to support people displaced by extreme weather and climate change. **This framework acts as a strategic guide to help support advocates, urban planners, municipal and state leaders, community-based organizations, and elected officials as they enact work to prepare their communities for population growth and the arrival of climate-displaced people.**

Prioritize pro-housing initiatives that connect housing, transportation, and amenities.

- Increases housing supply, helping alleviate rising costs and making more homes available for residents and newcomers.
- Reduces the costs of infrastructure construction and maintenance.
- Reduces the costs of providing services.
- Reduces household transportation costs.

Strengthen social infrastructure to support new and long-time community members.

- Supports community-building and the formation of strong social networks that residents can rely on.
- Improves residents' mental and physical health.

Recognize and prepare for climate hazards.

- Protects current and future residents from climate impacts.
- Reduces the damages wrought by climate hazards and the costs of rebuilding and recovery.
- Better positions community for investments and economic growth.

Framework for aspiring climate havens

RECOMMENDATION 1: **Prioritize pro-housing initiatives that connect housing, transportation, and amenities.**

What strategies has my community advanced?	Who are some important partners?	What additional support might my community need?
☐ **1.1** Zoning reform		
☐ **1.2** Infill development (considering policy, finance mechanisms, & potential sites)		
☐ **1.3** Connected transportation options		
☐ **1.4** Protecting long-time residents from displacement		

Framework for aspiring climate havens

RECOMMENDATION 2: Strengthen social infrastructure to support new and long-time community members.

What strategies has my community advanced?	Who are some important partners?	What additional support might my community need?
☐ **2.1** Workforce development		
☐ **2.2** Small business support		
☐ **2.3** Celebrating culture		
☐ **2.4** Green spaces		

What strategies has my community advanced?	Who are some important partners?	What additional support might my community need?
☐ **2.5** Community engagement		

Framework for aspiring climate havens

RECOMMENDATION 3: Recognize & prepare for climate hazards.

What strategies has my community advanced?	Who are some important partners?	What additional support might my community need?
☐ 3.1 Climate-informed zoning		
☐ 3.2 Transfer of development rights programs		
☐ 3.3 Voluntary buyout programs		
☐ 3.4 Green infrastructure		

What strategies has my community advanced?	Who are some important partners?	What additional support might my community need?
☐ **3.5** Resilience hubs		
☐ **3.6** Resilient building codes		
☐ **3.7** Weatherization programs		

Supporting vulnerable community members

The strategies explored in this report are important tools to support aspiring climate havens to better prepare for the future by bolstering housing production, strengthening social infrastructure, and, overall, protecting residents from climate hazards. Even locations that are relatively protected from climate hazards are likely to face risk in the future. To meet the needs of all community members, our recommendations include special consideration for socially vulnerable groups. A 2024 U.S. Census Bureau analysis, for example, found a relationship between income inequality and vulnerability to climate disasters.[20]

In counties with higher income inequality (purple in the chart above), a larger proportion of the population tends to be highly vulnerable to disasters like flooding and wildfires. In other words, socially vulnerable groups, already contending with social and economic pressures like high housing costs, tend to be most impacted by climate disasters.

As a result, when people are displaced by climate disasters, they are often those with the fewest resources to support relocation. In many cases, they do not have housing or employment waiting for them in their new communities. Barriers to entry, like high housing costs, a lack of social networks to rely on, and continued exposure to climate hazards, can be insurmountable.

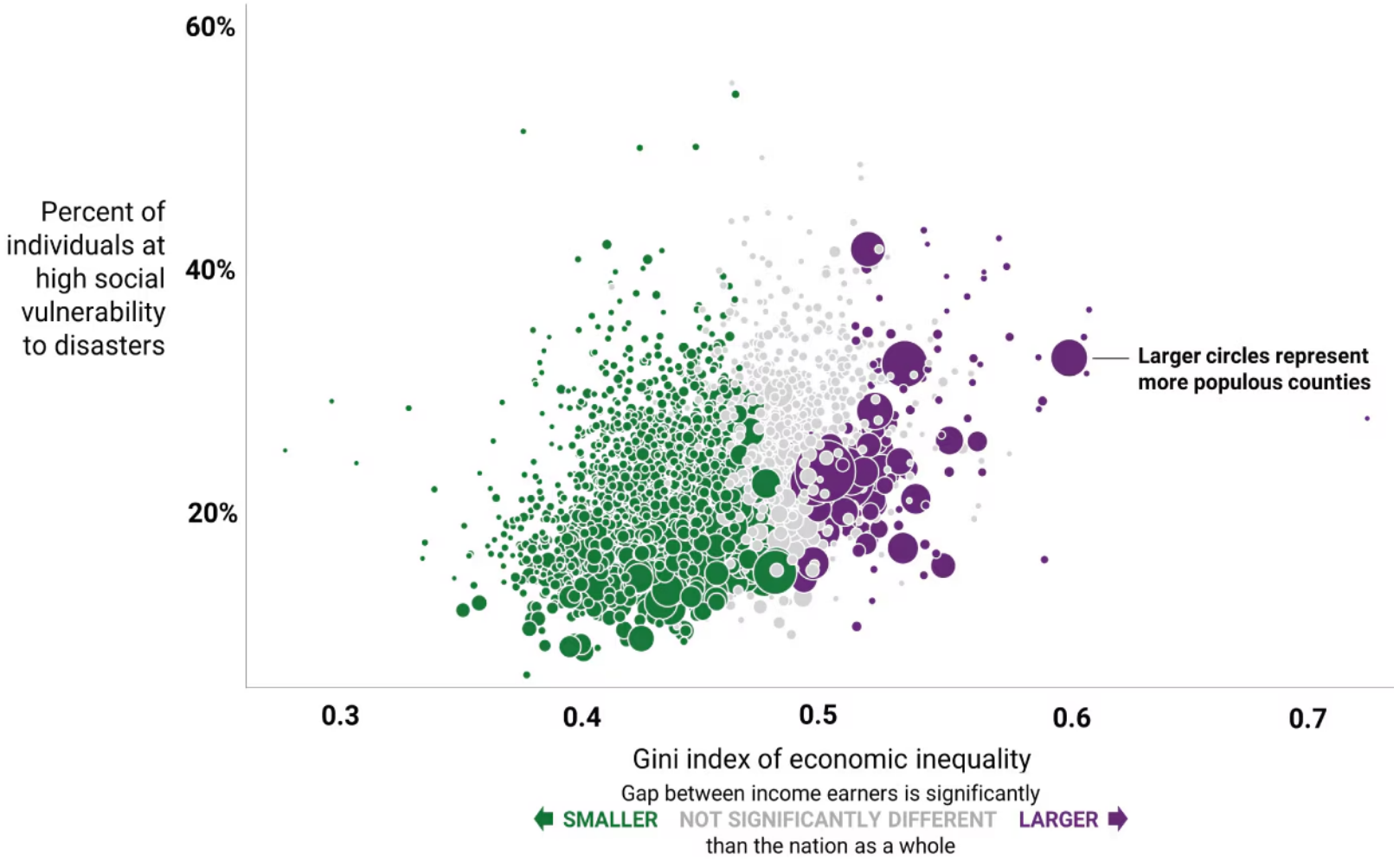
Additionally, as socially vulnerable groups are highly vulnerable to increases in the cost of housing, those in receiving communities may also be impacted by the arrival of climate-displaced people. The sudden rise in demand for limited housing stock may increase prices to the point of unaffordability, leaving many vulnerable to housing insecurity. Climate haven communities should also support these residents to remain in their communities, including by uplifting their voices when planning and implementing our recommendations.

Because the impacts of climate change can disrupt the fabric of communities in this way, it is critical for receiving communities to adopt policies that prepare them for the arrival of people displaced by climate-related hazards. Those forced to leave behind their neighborhoods, homes, and support networks often struggle to access affordable housing in new communities, especially when those places face the same climate risks or lack the infrastructure to absorb new growth.

At the same time, residents in receiving communities deserve to share the benefits from the economic development, not just bear the displacement pressures of increased demand and rising costs.

To protect both longtime residents and new arrivals, and to prevent more human suffering, climate haven communities must proactively plan for inclusive growth. When done right, these policies won't just respond to growth from people displaced by climate hazards; they can help build stronger, more prosperous communities for everyone.

U.S. Counties by Social Vultnerability to Disasters and Income Inequality: 2022



Economic inequality compared to disaster vulnerability.
Source: U.S. Census Bureau, 2022 CRE for Equity Supplement.

Prioritize pro-housing initiatives

Aspiring climate haven communities should advance strategies that increase housing supply to meet the needs of existing community members and prepare for those who will come as a result of extreme weather events and increasing climate pressures. To do so, local governments should reform land-use policies to promote development, especially within the existing community cores and development footprint, where existing infrastructure can better support population growth.

The U.S. is currently in the midst of a national housing crisis, with an estimated shortage of 3.85 million housing units[21] and 22.4 million renter households, or half of all U.S. renters, experiencing a housing cost-burden (spending more than 30 percent of their income on rent and utilities).[22]

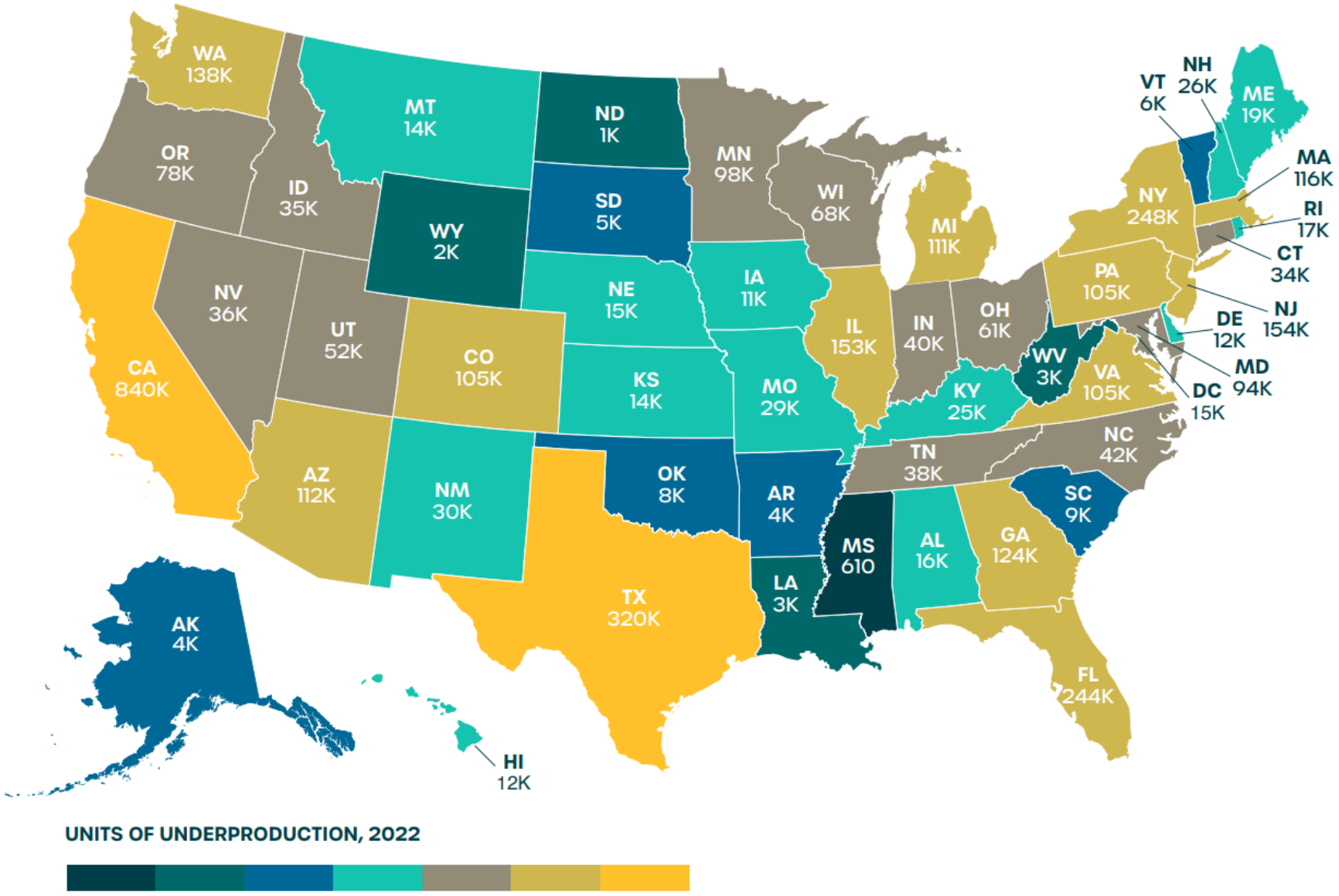
As climate-displaced people relocate to climate havens, increasing pressure on local housing stocks, housing crises in these communities could grow even worse. Communities should confront these housing issues head-on; if not, rising demand for limited housing supply could deepen affordability issues—not only for climate-displaced people, but also for long-time residents, new arrivals of all kinds, and local businesses struggling to attract and retain workers in increasingly expensive housing markets.

Many current land-use policies constrain development in locations with the highest potential for housing, making it easier to build on the outskirts of the community, often in undeveloped and more hazard-prone areas. Developing on the urban edge at a low density contributes to traffic congestion, can isolate households from access to daily needs and amenities, and increases household transportation costs due to reliance on cars.[23]

Reforming land use policies to allow and promote increased housing supply in compact, mixed-use locations—especially within existing communities where homes are close to jobs, services, and amenities—is essential for building inclusive, affordable, and resilient places. These changes support vulnerable groups most at risk of displacement, while also benefiting entire communities by lowering transportation costs, improving access to opportunity, and making more efficient use of infrastructure. Smart growth strategies such as these can also help support localities with constrained budgets, as public infrastructure and services, including emergency response, roads, sewer, and waste disposal, cost significantly less to maintain in a less geographically-sprawled service area—a 25 percent increase in population and job density in the U.S., for example, would save governments an estimated $3.63 to $6.56 billion per year.[24]

Strategies to implement this recommendation include zoning reform, infill development, connecting housing to transportation options, and tools to stabilize housing and prevent displacement.

Estimated housing units needed to overcome housing shortages in each U.S state



States haven't been building enough housing to accommodate population growth. This map shows how many housing units each one needs to build. Source: Up for Growth's 2024 Housing Production report.

Zoning reform

Zoning codes are often a significant barrier to increasing the housing supply and promoting mixed-use development. Zoning raises property values by constricting supply, lowers tax obligations, and, in many cases, restricts housing accessible to low-income and other disadvantaged communities.[25] Euclidean zoning, which separates uses and often dedicates large swaths of residential land only to detached single-family homes, must be reformed to alleviate the housing crisis. Other zoning tools, including parking minimums and minimum lot size requirements, must similarly be reformed to legalize compact, mixed-use development in more locations to meet housing needs.

More information on zoning reform can be found in the Smart growth resource guide attached to this report.

How prioritizing pro-housing initiatives may look on-the-ground

Unless these outdated zoning codes are updated, communities will continue to face housing supply challenges, which will be exacerbated further by population increases. New residents may drive costs up further and may lack choices of housing options, potentially facing barriers to social integration and pressure to expend much of their financial resources on housing and transportation. Worse, those who cannot access this limited housing stock may experience housing instability and homelessness. Meanwhile, vulnerable residents in climate havens may see high housing costs climb even further, putting their housing security at risk.

Policy highlight — Boise, Idaho: In 2023, Boise updated its zoning code to incorporate policies that are more pro-housing.[26] Boise's reform allowed for the construction of multiplexes in all residential land in the city, increased the allowable size of Accessory Dwelling Units (ADUs), commonly known as backyard cottages or granny flats, and reduced parking minimums and minimum lot size requirements. Just three months later, the city saw a notable increase in housing construction, particularly ADUs.[27]

Duplexes surrounding a central courtyard in Downtown Boise, ID. Source: Issuu.

Infill development

Infill development, which occurs in already developed areas, leverages vacant or underutilized lots to introduce new homes and businesses. This strategy maximizes the use of existing infrastructure, can bring investment to underserved areas of communities, and is an important component of efforts to expand housing supply. However, barriers to infill development include the higher cost of land acquisition and construction, frequently unsupportive policy, and the need for specialized knowledge and financing mechanisms.[28]

Climate haven communities should work to address these barriers to infill development so that housing and investments can center on existing neighborhoods and not be pushed further away to the urban fringe. By promoting investment in existing neighborhoods, communities can support economic development, reduce future infrastructure costs, and help support future residents by reducing their transportation costs. Additionally, because infill promotes housing development within existing developed areas, newcomers to these communities, including climate-displaced people, will have easier access to existing infrastructure, jobs, community, and amenities

Local jurisdictions can help promote infill by creating strategies for land acquisition for public sector-led development and by providing funding mechanisms for these projects. Land banks, for example, can take possession of vacant, abandoned, or dilapidated properties that are tax-foreclosed and then sell them to buyers seeking to develop projects that align with community goals.[29] Funding mechanisms, meanwhile, can include housing trust funds, which support long-term housing affordability in communities by financing affordable housing projects.

Policy highlight — Atlanta, Georgia: The Metro Atlanta Land Bank is a partnership between the City of Atlanta and Fulton County, authorized via an interlocal cooperation agreement and the Georgia Land Bank Act.[30] The Land Bank takes title to properties that are tax delinquent, vacant, abandoned, or dilapidated and transforms them into housing or community amenities. In 2023, properties in the Land Bank's portfolio created 250 new housing units, with all maintaining specific affordability requirements.[31]

Senior affordable housing developed in southwest Atlanta from land acquired by the Metro Atlanta Land Bank. Source: National Church Residencies.

Policy highlight — Duluth, Minnesota: The Duluth Housing Trust Fund (HTF), established via a partnership between the City and the Local Initiatives Support Corporation, provides funding for housing developments that include dedicated affordable housing.[32] The HTF's Infill Development Sub-Program aims to increase the city's housing stock, invest in Duluth neighborhoods, and deliver affordable housing in all city neighborhoods. Up to $700,000 in funding is available for housing projects that take place on infill lots in the city.

Connected transportation options

Access to affordable, stable housing is essential for welcoming people displaced by climate change and for helping to prevent longtime residents from being pushed out by new community members and development. But adding more housing alone isn't enough. Without reliable, affordable transportation options, people may struggle to get to the places they need to go, adding financial pressure and social isolation on top of housing instability. When homes are connected to jobs and services by walking, biking, or public transit, it reduces household transportation costs, often the second-largest expense after rent or mortgage,[33] and allows people to more easily participate in community life.

To support both incoming and existing residents, aspiring climate haven communities should prioritize building homes near existing transit, improving pedestrian and bike infrastructure, and planning for a range of transportation options that reduce dependence on personal vehicles. This includes adopting **Complete Streets** designs that make roads safer and more welcoming for everyone, not just drivers, by incorporating features like wider sidewalks, safe bike lanes, and better lighting. Communities can also guide new housing development toward areas served by frequent public transit through **transit-oriented development,** helping more people live in locations where they don't need to rely on a car. Strategic infrastructure investments like these support responsible growth while strengthening connections within neighborhoods.

Together, these strategies don't just reduce financial burdens—they help build communities where more people can thrive, regardless of whether they've lived there for decades or are just starting over.

Policy highlight — Hoboken, New Jersey: Located just across the Hudson from New York, Hoboken is a national leader in Complete Streets design. The city's Street Design Guide guides the city's efforts to make walking, biking, and taking transit safer for residents, including by building dedicated spaces for pedestrians, bicyclists, and transit users along roads.[34] As a result of these efforts, the city has not experienced a traffic death since 2017, even as pedestrian fatalities nationally have reached all-time highs.[35] This infrastructure, together with the city's public transit systems, has helped Hoboken become one of the U.S.'s most densely populated cities.[36] Meanwhile, Hoboken has also made significant investments in infrastructure to prepare for flooding and sea level rise, in order to prepare for future environmental conditions.[37]

A section of Observer Highway, designed as a Complete Street in Hoboken. Source: Hoboken.gov.

Policy highlight — Greater Boston region, Massachusetts: In 2021, the Massachusetts legislature passed the Massachusetts Bay Transportation Authority (MBTA) Communities Act, which identified cities and towns in the state served by the MBTA's subway and commuter rail lines, centered around Boston, and required them to update their zoning codes to allow for denser housing development, ideally near to the transit station. As a result of this legislation, 177 Massachusetts communities are required to direct denser housing development to areas served by high-capacity transportation infrastructure. Altogether, zoning changes in MBTA Communities could allow up to 344,000 housing units to be built, although the actual number built will likely be much lower.[38] The state's housing shortage is estimated to be 222,000 units.[39]

Transit-oritented development adjacent to Worcester Union Station in Greater Boston. Source: Zillow.

Protecting long-time residents from displacement

In addition to broadly spurring housing development to increase housing supply, climate haven communities should also ensure that quality housing remains accessible and affordable to existing residents, especially those of socially vulnerable groups, like older persons, disabled persons, and low-income households. New development, while critical for addressing housing shortages and creating economically prosperous communities, has the potential to increase area real estate value, which can lead to displacement of long-time residents due to increased housing costs and related taxes.

Because the arrival of climate-displaced people can occur rapidly, significantly increasing demand in local housing markets and driving up housing costs, climate haven communities, while welcoming those displaced from climate hazards, must work to protect their vulnerable residents from this instability. In unprepared housing markets, this sudden rise in housing costs can price out low- and middle-income households, economically displacing them.

To combat this, climate haven communities can utilize tools to stabilize housing and prevent displacement, such as inclusionary zoning, community land trusts, and tax abatements.

Inclusionary zoning establishes requirements for affordable units in new developments of a certain size, often requiring that 10 to 30 percent of new housing units be set aside as dedicated affordable housing for low- and middle-income households.[40]

Community land trusts are non-profit organizations that purchase land, often with public and philanthropic funding, and build housing on it that is affordably leased or rented to residents.[41] This housing can also be sold to homebuyers more affordably since the cost of land acquisition is removed from the housing's price point, allowing community members to build generational wealth via homeownership.

Tax abatement policies reduce property taxes for homeowners or developers over a certain number of years, alleviating some of the effects of property values increasing due to new developments.[42]

Transit-oriented development adjacent to Worcester Union Station in Portland, OR. Source: Tiller Terrace.

Policy highlight — Portland, Oregon: Portland's inclusionary zoning ordinance, almost unique in the U.S., is combined with a tax abatement policy.[43] This ordinance requires multi-family housing developments to set aside ten to twenty percent of housing units to become dedicated affordable housing. However, because inclusionary zoning requirements can sometimes reduce housing construction (as fewer housing developments are able to acquire enough financing) or result in higher rents for those not in dedicated affordable units, Portland's policy combines inclusionary zoning with tax abatements. This 10-year reduction in property taxes provided to these developments alleviates some of the financial ripple effects of inclusionary zoning, helping ensure that housing is still built and that costs are not passed on to residents.

Strengthening social infrastructure

Climate haven communities should advance initiatives that foster a sense of community, helping both longtime residents and newcomers, like climate-displaced people, form critical social networks that can provide support during times of need. Those who relocate due to climate impacts must often part with significant social capital, including established relationships with friends, family, neighbors, and others, and, in many cases, generational, cultural, and familial ties to their communities. For climate haven communities, helping ease the newcomers' transition to their new home is paramount. Furthermore, investing in social infrastructure will likely support the broader communities' needs, including long-term residents and residents relocating to the area for other reasons.

In providing ample opportunities for social interaction and cohesion, communities can help ease the turmoil that many people displaced by climate hazards experience, which includes PTSD, anxiety, or other mental illnesses.[44] And by creating time and space for meaningful connections, they can combat the loneliness epidemic that has swept much of the U.S. since the COVID-19 pandemic.[45]

Strategies to implement this recommendation include workforce development, support for small businesses, celebrating culture, green spaces, and community engagement.

Workforce development

Finding stable employment is one of the biggest hurdles climate-displaced people face after relocating, especially in unfamiliar communities where they may lack personal and professional networks. Unemployment among recently climate-displaced people is often two or three times the national average, due in part to mismatches between previous job experience and the kinds of employment available in their new communities.[46] For many, additional barriers such as lost identification, difficulties securing a permanent address, and the need for childcare may also make finding employment even more difficult. Without access to stable employment, newcomers can struggle to integrate socially and economically, limiting both individual opportunity and community vitality.

Climate haven communities can help by investing in workforce development initiatives. Local governments, on their own or in partnership with community-based organizations, can expand programs that provide skills training, job fairs, certification support, and more. By aligning workforce development with housing and economic strategies, communities can strengthen their labor force, improve social integration, and build a stronger local economy.

Policy highlight — Chicago, Illinois: The Chicago Cook Workforce Partnership, which oversees workforce development for the City of Chicago and Cook County, provides skills training, networking opportunities, job fairs, and other services to job seekers in the Chicago region. In 2023 alone, it invested $70 million into services for 8,900 people, with 76 percent of those participating in the Partnership's skills training programs securing employment upon completion of the program.[47]

Small business support

Climate haven communities should support the development and establishment of small and local businesses, which can help stabilize communities, diversify the local economy, and support a sense of community. Small businesses are often significantly enmeshed in their communities, as they provide local employment, contribute to community culture and character, and often reinvest into their community.[48] These businesses can serve as important nexuses for social interaction, fostering community cohesion and the building of social networks in the process. New residents also may contribute to the community and its economy by establishing small businesses.

By supporting small businesses, climate haven communities can advance wealth-building opportunities for both existing residents and newcomers while also facilitating a sense of place. This support can include financial assistance, business management training, or assistance in finding and navigating the leasing process for commercial space.

Policy highlight — Baltimore, Maryland: The Baltimore Development Corporation, which leads economic development efforts in the city, leads a network of entrepreneurial support organizations through its Business Assistance & Support for Equity (BASE) Network.[49] The BASE Network, formed in 2020, has since supported 4,000 local small businesses, primarily owned by members of socially vulnerable groups, with grants, technical assistance, and networking opportunities.[50] In 2023 alone, the BASE Network provided nearly $5 million in grants to over 200 small businesses.[51]

Celebrating culture

Cultural pride and expression are pivotal for placemaking and helping foster social connection, healing, and celebration.[52] For climate-displaced people who left behind valued cultural ties and experiences in their former homes, celebrations of cultural work and traditions in community events, museums, galleries, theaters, or festivals can help them feel welcome in their new communities while also providing opportunities for them to create and deepen relationships with other community members.

Climate haven communities can celebrate culture via creative placemaking (such as by partnering with local artists and supporting cultural events), cultural education programs, and investments in the local creative economy (such as through land use policy changes that support small businesses and artists).

Facade decorations in the Calle 24 Latino Cultural District in San Francisco, CA. Source: Scott Strazzante.

Policy highlight — San Francisco, California: Beginning in 2018, through the Cultural Districts program, San Francisco established several cultural districts focusing on specific communities in the city.[53] Each district partners with city departments and agencies to create a Cultural History, Housing, and Economic Sustainability Strategies (CHHESS) plan to stabilize and strengthen the community. Some strategies employed by cultural districts include small business assistance, culturally significant artwork like sculptures, murals, and gardens, housing assistance, and cultural festivals.[54]

La Jalisciense mural Detroit artist Freddy Diaz. Source: City of Detroit.

Policy highlight — Detroit, Michigan: Detroit Arts, Culture, & Entrepreneurship, a city agency, collaborated with local community-based organizations to launch a $1.5 million fund supporting arts administrators, artists, arts organizers, curators, or other culture workers in the Detroit region.[55] This program offered funding, professional development, and social networking opportunities to 74 different culture workers from disadvantaged communities.

Green Spaces

Climate haven communities should expand public access to green spaces, particularly in socially vulnerable neighborhoods. Green spaces, including parks, urban forests, and gardens, have a positive effect on physical and mental health. They promote physical activity, enhance cognition, and reduce stress and rates of mental illnesses like anxiety or depression.[56] They also serve as public spaces, enhancing neighborhood connectivity and providing opportunities for social connections.[57]These benefits are critical for supporting climate-displaced people but can also significantly improve quality of life and self-reported happiness for all residents.[58]

Piatt Park, Cincinatti's oldest urban park. Source: Wholtone on WikiCommons.

Policy highlight — Cincinatti, Ohio: Cincinnati's 109 public parks already cover 17 percent of the city's land area, providing access to green space within a 10-minute walk for 88 percent of the city's residents.[59] However, with the Green Cincinnati Plan, the city is going even further to create new green spaces, increase access to green spaces through infrastructure improvements, and provide green space workforce training.[60] Through the Spaces to Places initiative, Cincinnati converts vacant lots, particularly in areas that have historically been underinvested in, into green spaces through partnerships with community members.[61] Additionally, the city provides grant funding to urban agriculture systems and community gardens to help support the continued operation of these green spaces.[62]

Community Engagement

Robust community engagement, which can include public hearings, workshops, targeted outreach, and other efforts to hear from community members, helps foster a sense of place. These efforts can help community members guide local planning processes and initiatives, giving them a voice in shaping their neighborhoods' futures. When community members are not included in these processes, they can feel unwelcome or out of place in their communities, which may result in a misalignment between residents' wants and needs and the programs and processes actually delivered.

Community engagement is particularly important in climate haven communities planning for population growth, both for existing residents as well as for newcomers, and for socially vulnerable groups, who often have little say in shaping their communities.

Community engagement efforts should focus on building trust with the public, via consistent, long-term relationships with community members, ample opportunities to provide input, and a willingness to tailor community engagement processes themselves to resident needs (such as those unable to attend community meetings during working hours or those with childcare needs).

The pedestrian overpass at the University Metrorail Station in Miami. Source: Miami-Dade County Transportation Trust.

Policy highlight — Miami-Dade County, Florida: To guide implementation of the People's Transportation Plan, which was developed through feedback from nearly 100,000 community members, Miami-Dade County created the Citizens' Independent Transportation Trust (CITT).[63] This body, approved by voters in a ballot initiative, oversees implementation of the $17 billion transportation plan, which outlines the county's efforts to expand public transportation. The CITT is entirely composed of county citizens with no ties to county government and is responsible for allocating the transportation plan's funds and monitoring progress toward its goals.[64]

Preparing for climate hazards

Although some areas of the country may experience less climate risk than others, nowhere is truly climate-proof. As climate haven communities will still feel the effects of climate change, including, potentially, climate hazards like floods, droughts, wildfires, and extreme heat, they must prioritize efforts to boost local resilience. This is especially critical for socially vulnerable groups, who are often disproportionately exposed to climate hazards and have less capacity to respond and recover, as well as climate-displaced people arriving as new residents, who likely similarly do not have the resources to recover from climate hazards.

To reduce the impacts of climate hazards, climate haven communities must boost the resilience of both new development and existing built-up areas. These localities can use climate-informed zoning, transfer of development rights programs, and voluntary buyout programs to guide development towards areas with less climate risk; green infrastructure to strengthen community-wide resilience; and resilient building codes and weatherization programs to ensure new and existing development can withstand climate hazards.

Meanwhile, continued commitment to reducing emissions, through climate action planning, should complement this work on climate adaptation.

Charleston's Upper Peninsula zoning district promotes development where there's less flooding risk
Source: The City of Charleston.

Climate-informed zoning

Climate haven communities can incorporate climate considerations into their zoning codes to guide development away from at-risk locations and strengthen project standards to boost resilience to hazards. Disincentivizing development in areas known to be hazard-prone helps ensure that growth is directed out of harm's way so that residents are less exposed to climate impacts. While the specifics vary, many localities have begun adopting climate-informed zoning codes, from Corpus Christi, Texas, to Nantucket, Massachusetts.

Policy highlight — Charleston, South Carolina: Located on the coast of South Carolina's low-lying plains, Charleston is extremely vulnerable to inundation, with sea level rise predicted to leave much of the city underwater by 2050.[65] In recognition of this, Charleston created an Upper Peninsula Zoning District in its zoning code, centered on the higher-lying upper peninsula where flooding is less of a concern.[66] In this zoning district, developments can receive density and height bonuses, which incentivize developers to focus on larger projects where flood risk is lower.

Transfer of development rights programs

Transfer of development rights (TDR) programs, like climate-informed zoning, incentivize development in less hazard-prone areas. Through these programs, landowners in areas where development is more exposed to hazards can sell their development rights to landowners in safer areas, who will be able to use these development rights to build at higher densities.[67] As a result, development that otherwise may have occurred in areas where hazards are more pronounced will occur in safer areas.

Policy highlight — Routt County, Colorado: In Rural Routt County, the Purchase of Development Rights program allows property owners of parcels in rural and natural areas to sell their development rights.[68] Once development rights are sold, development on the rural or natural area is prohibited in the parcel's deed, regardless of changes in ownership, preserving the rural or natural use of the land. This program has conserved over 45,000 acres of rural and natural lands, including many riparian areas and all the resilience benefits they provide.

A conservation easement established through Routt County's Purchase of Development Rights program.Source: Colorado Cattleman's Agricultural Land Trust.

Voluntary buyout programs

Hazard mitigation voluntary buyout programs are key tools for incentivising those who live in hazard-prone areas to move to safer areas, with their previous home preserved as a buffer to climate and environmental hazards. Buyout programs target parcels as individual properties or in clusters of properties in climate-risky areas, allowing owners to sell their homes at fair market value to the county and state government. As part of these buyouts, state and county governments may transfer management or ownership of these newly acquired lands to land conservancies, park systems, land banks, or tribal governments. An important aspect of a buy-out program is wrap-around services: supporting residents in their moves, especially given the challenges of a demanding housing market.

As part of these programs, facilitating agencies may offer flexible arrangements for residents not yet ready to relocate. Leasebacks, for example, are when local governments purchase a climate-vulnerable property and lease it to the original owner until their eventual relocation. Leases could be set to expire after a set amount of time or following a triggering event, such as a substantial flood.[69]

Life estates provide similar flexibility. Homeowners maintain possession of their property and continue to live in their homes until their passing, after which the property reverts to government ownership.[70]

Policy highlight — Charlotte, North Carolina: Charlotte-Mecklenburg Storm Water Services, the utility centered on Charlotte and Mecklenburg County, has operated a voluntary buyout program, including options for leasebacks, since 1999.[71] This program has bought 500 homes from flood-prone areas and used the land for stream and floodplain restoration, avoiding more than $50 million in losses due to flooding damages.

Westfield Road in Charlotte, during a 2011 flood (top) & after floodplain buyouts and a conversion to greenspace (bottom). Source: Charlotte-Mecklenburg Storm Water Services

Green infrastructure

Climate haven communities should expand green infrastructure, like the urban tree canopy, rain gardens, bioswales, permeable pavement, and other nature-based solutions that can alleviate the impacts of threats like flooding or extreme heat.[72] These infrastructure interventions can significantly reduce noise and air pollution, stormwater runoff, and the urban heat island effect, often while requiring less investment in installation and maintenance than gray infrastructure like drainage canals.[73]

Climate haven communities should pursue inclusive, community-led green infrastructure planning processes, wherein community members have the opportunity to provide input into how these efforts are designed and implemented.[74] When planning for green infrastructure, climate haven communities should include community members in the process, including socially vulnerable groups, and involve members of these communities early in and throughout the planning process. Green infrastructure and its benefits have often not been distributed equitably, and many socially vulnerable groups have limited access to these amenities. However, because green infrastructure can significantly mitigate the impacts of climate hazards, making nearby neighborhoods more attractive for newcomers, installing it without community involvement may result in displacement, underscoring the importance of implementing complementary policies to safeguard affordability and increase housing supply.

Policy highlight — Tucson, Arizona: Through efforts like the Green Streets policy, the Storm to Shade program, and the Million-Trees Initiative, Tucson has invested in increasing green infrastructure city-wide. The Green Streets policy requires the city's Department of Transportation to incorporate green infrastructure into roadway design, with the aim of reducing flooding, extreme heat, and the need for irrigation in an area that often experiences water shortages.[75] The Storm to Shade program similarly leverages public park projects to install green infrastructure.[76] Tucson has also initiated an ambitious goal to plant one million trees in the city by 2030, guided by its Community Forest Action Plan.[77]

Rain gardens in an extended curb in Tucson.
Source: Alisha Goldstein/U.S. Environmental Protection Agency

Resilience hubs

Resilience hubs are community centers and other community-serving facilities that help boost local resilience to climate hazards by providing residents with education and resources on preparedness and recovery in local community settings.[78] Resilience hubs can operate before, during, and after disaster strikes, providing a wide array of services to support communities experiencing climate impacts; importantly, they serve as central spaces for residents to come together to discuss their resilience needs to chart actions they may be able to take to help mitigate climate impacts.

As many climate-displaced people have directly experienced climate hazards, resilience hubs provide spaces for them to build connections with other stakeholders in their new community who are interested in mitigating the impacts of these hazards. The hubs promote knowledge-sharing, supporting climate-displaced people to have a role in shaping and elevating their new community's response to climate impacts, potentially helping the community as a whole be more prepared when these challenges arrive.

Policy highlight — Hawaii County, Hawaii: In the Big Island of the Hawaiian archipelago, non-profit organization Vibrant Hawai'i has worked with the county's Civil Defense agency (the local emergency management agency) to establish a network of 20 resilience hubs across the island.[79] These hubs support local resilience by facilitating social cohesion and peer-to-peer learning, advancing community-designed resilience strategies, and supporting implementation of place-based and culturally-informed strategies to increase resilience.[80]

Resilient building codes

Climate havens can utilize building codes to ensure that newly constructed buildings are more prepared for extreme weather events like high winds, flooding, and wildfires. Building codes may institute higher wind load requirements in areas prone to hurricanes, may establish a set of flood-resistant design standards for elevation, materials, or construction methods, and may require fire-resistant materials or flame-resistant plantings or the addition of defensible perimeters around properties.[81]

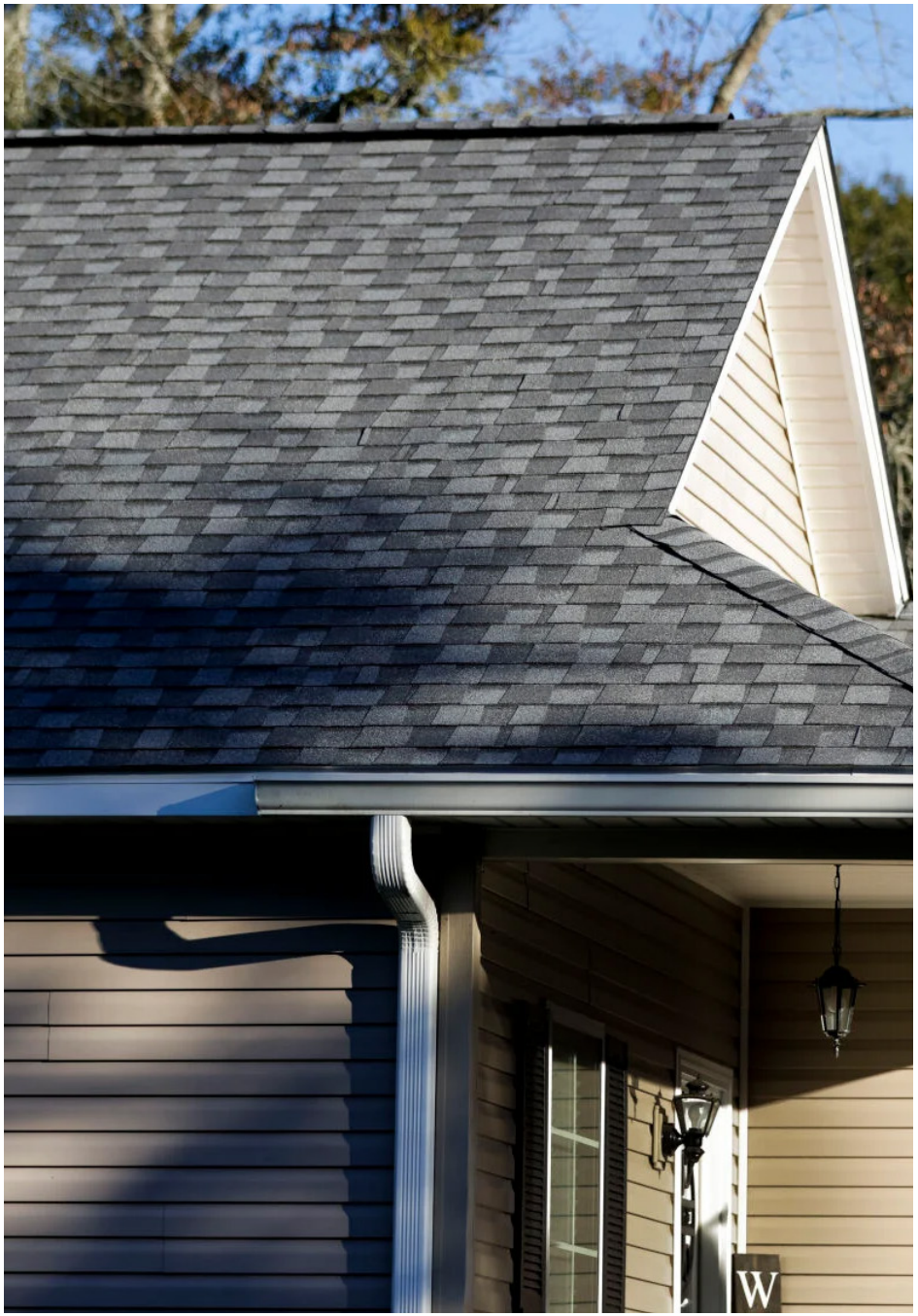
Policy highlight — California: California's state building fire codes are among the most stringent in the U.S., requiring construction with fire-resistant materials and roofs, vents, windows, and walls to be built to fire-resistant standards.[82] This building code applies to housing constructed in high-risk fire zones since 2008. Although much of the state's housing was built before these codes went into effect (and is thus not constructed to be as fire-resistant), housing that is built to these standards is almost four times more likely to survive wildfires like those that afflicted Los Angeles in 2025.[83]

A home built post-2008 survived the 2018 Camp Fire, while nearby homes did not. Source: Hector America

Weatherization programs

Climate haven communities can utilize weatherization programs to reduce the vulnerability of existing buildings and to reduce energy costs for residents. These programs are especially useful for socially vulnerable groups, who often live in housing that is unprepared for climate hazards but may not have the resources necessary for potentially costly home upgrades.[84]

Policy highlight — New Orleans, Louisiana: New Orleans's Fortified Roof Program uses Community Development Block Grant funds to provide up to $35,000 in financial assistance to households that earn at or below 80 percent of the Area Median Income. With these funds, households can install a new fortified roof capable of withstanding damage caused by high winds, heavy rain, hurricanes, and hailstorms.[85]



A fortified roof in New Orleans, which meets Insurance Institute for Business & Home Safety standards. Source: Scott Threkeld

Building prosperous and resilient communities for all

Climate hazards like flooding, wildfires, and droughts are already occurring, causing damage across the U.S. Since 1980, the U.S. has experienced 403 billion-dollar disasters, totaling nearly $3 trillion in damages and losses.[86] In 2023 alone, an estimated 2.5 million Americans were displaced by climate hazards.[87] According to a recent U.S. Census Bureau survey of nearly a million respondents, 10–20 percent of those who were displaced by a disaster never returned home, having been forced to permanently relocate to new communities.[88]

In response, some communities have self-branded as climate havens—safe, livable destinations for people escaping climate risk. But becoming a climate haven should be more than just a marketing pitch to draw economic development. Communities that anticipate climate migration, or have already experienced it, should implement policies that both prepare for new arrivals and support existing residents who may face added housing affordability pressures.

As this report outlines, aspiring climate haven communities can lay the groundwork for more inclusive, climate-ready growth by prioritizing pro-housing initiatives, strengthening social infrastructure and services, and planning for their own climate risks. Many communities have already begun taking steps to lay the groundwork for a better future.

By implementing these strategies within a broader climate mobility framework, communities can better support both long-time residents and climate-displaced newcomers, building more prosperous and resilient communities for everyone.

Smart Growth AMERICA

Appendix

SMART GROWTH RESOURCE GUIDE

Smart Growth America empowers communities through direct technical assistance, powerful advocacy, and thought leadership to realize our vision of livable places, healthy people, and shared prosperity. This work requires an interdisciplinary approach across a span of interrelated areas: housing, zoning, planning, land use, economic development, transportation, and others. Our coalitions and programs advance our work and serve as the resource hubs for these subject areas.

The Center for Zoning Solutions (CZS) is SGA's home for the zoning reform movement. It shares research and reports, leads federal advocacy efforts, and supports communities across the country to tackle barriers to smart growth and advance policies to encourage mixed-use development, location efficiency, and diverse housing options. CZS advocates for zoning solutions that advance missing middle housing, infill, and affordable housing typologies, facilitate mixed-use and small-scale commercial development, and facilitate investment in civic and public benefits. For more information, see CZS's resources for zoning reform.

Transportation for America (T4A) is an SGA program working to create a transportation system that safely, affordably, and accessibly connects everyone to jobs, services, and opportunities through diverse travel options. T4A advocates for a strong, modern transportation system that supports prosperous cities, towns, and suburbs where businesses thrive and people of all incomes and ages can live healthy and productive lives. For more information, see T4A's resources.

The National Complete Streets Coalition is an alliance of public interest organizations and transportation professionals committed to the development and implementation of Complete Streets policies and practices. Complete Streets is an approach to planning, designing, building, operating, and maintaining streets that enables safe access for all people who need to use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. While Complete Streets are unique to their community context, they may include sidewalks, bike lanes, frequent and safe crosswalks, accessible pedestrian signals, and more. For more information, see the Coalition's resources for Complete Streets.

CASE STUDY

Climate mobility framework in New York State

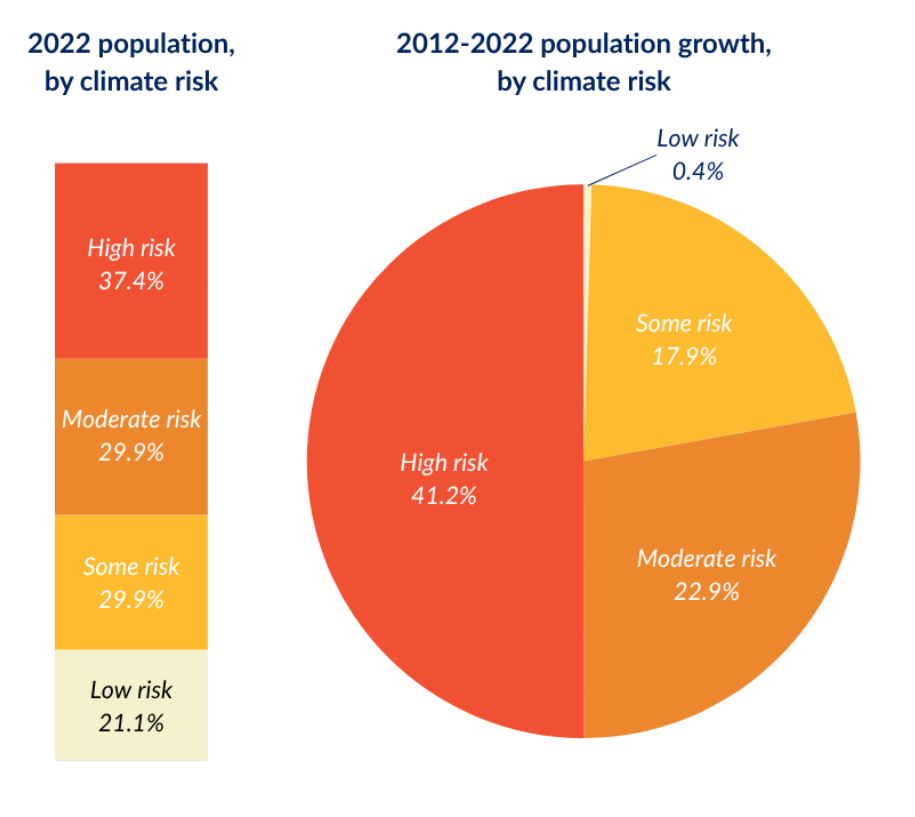
To provide an example for policymakers and planners of how Smart Growth America's climate mobility framework can be applied to their community, SGA conducted a data-based analysis of New York State. The analysis focuses on New York State in part because the state hosts a wide variety of climate-related risks, ranging from flooding to extreme weather, while also being home to several climate havens, including Buffalo and Rochester. As a result, the analysis of New York State can help show how climate impacts and population trends can vary across a region.

Determining climate risk

For this analysis, we used FEMA's National Risk Index (NRI) to determine climate risk. The NRI combines data on 18 different natural hazards, including earthquakes, floods, wildfires, and tornadoes, for every county and census tract in the U.S. It integrates three primary components: expected annual losses, social vulnerability, and community resilience. This combination offers a detailed picture of where risks are greatest, not only due to the physical threats of climate hazards but also because of socioeconomic factors that could hinder recovery.

We adjusted the NRI data by excluding certain climate risk factors that are less pertinent to New York State (avalanches, earthquakes, hurricanes, tornadoes, tsunamis, and volcanic activity). We also rescaled the NRI to the within-state percentile to highlight local risks, as the original NRI data scales risk relative to the U.S. as a whole. Finally, this data for New York State was aggregated into quartiles, with census tracts in the top quartile having the highest climate risk. The NRI data is based on vulnerability to climate hazards and does not incorporate the extent of built and natural environment infrastructure investments can enhance resilience.

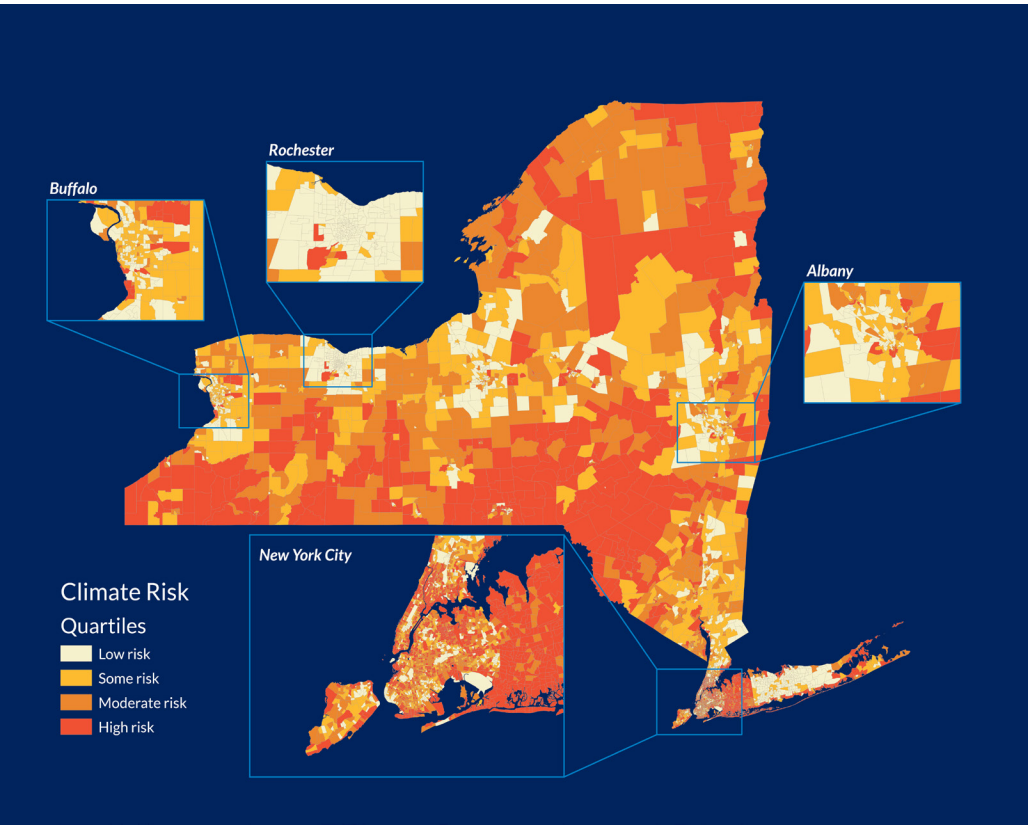
Through this analysis, we found that coastal areas like those along Manhattan and Long Island generally have higher climate risk, as well as near the Thousand Islands area, the Southern Tier and central New York regions, and along the Adirondacks. The analysis affirmed many common sense assumptions about level of risk, including vulnerability of coastal areas. Almost all of the New York City area is considered a climate risk hot spot, as well as near coastal Westhampton Beach, Rockland County, along the SR17 corridor between Middletown and Binghamton, along the Susquehanna River, along the Chenango River near Norwich, around I-81 near Cortland, near Olean, and near Jamestown.

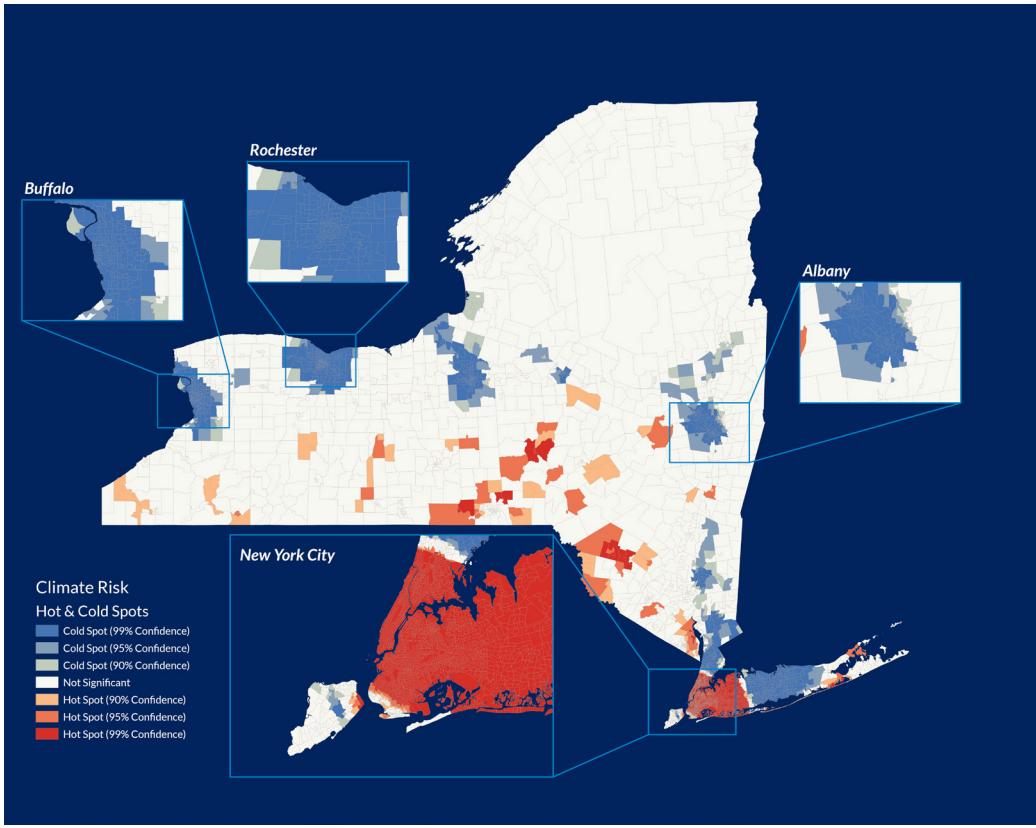


Lower risk cold spots are along most of Suffolk and Nassau Counties, Westchester County in areas East of the Hudson, near Albany, greater Syracuse, greater Rochester, greater Buffalo, and Schenectady.

Over two-thirds (67.3 percent) of New York State's population lives in areas in the top half of climate risk, and the plurality (37.4 percent) live in the top quartile of climate risk. The state's population is also growing more in areas with higher climate risk.

Only 0.4 percent of the state's population growth between 2012 and 2022 occurred in areas in the lowest quartile of risk, while almost two-thirds (64.1 percent) of population growth occurred in areas in the top half of climate risk and the plurality (41.2 percent) in the riskiest quartile.





Determining social vulnerability

The U.S. Center for Disease Control's (CDC) Social Vulnerability Index (SVI) is reported in the same NRI dataset. This measure is designed to assess how different communities are affected by and recover from disasters. It considers a range of social factors, including socioeconomic status, household composition, minority status, language proficiency, housing, and access to transportation.

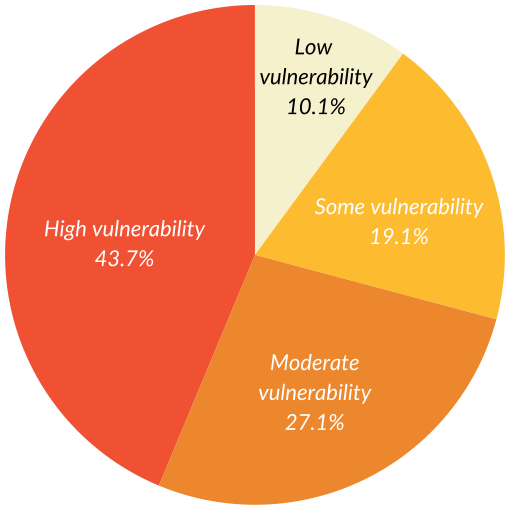
These variables are grouped into four key themes that collectively determine a community's ability to prepare for, respond to, and recover from natural and human-made disasters. Communities with higher levels of social vulnerability are less able to cope with emergencies due to limited resources, communication barriers, or physical constraints. In New York State, the areas with the highest social vulnerability are in upper Manhattan, including Harlem and Spanish Harlem, several areas in Brooklyn near Sunset Park, Bensonhurst, and Gravesend, and various points in Queens, including the Rockaways, Jamaica estates, and Flushing. Around the rest of the state, pockets of high social vulnerability exist near Fort Drum/Watertown and Monticello. Almost all of New York City and lower Westchester County are hot spots of high social vulnerability, with additional hot spots near Monticello, Binghamton, Syracuse, Rochester, and Buffalo. Notably, Syracuse, Rochester and Buffalo include many "cold spots" of low SVI, indicating a dynamic of well-to-do suburbs and more vulnerable central cities. Other cold spots exist outside of Albany and Saratoga Springs along the upper Hudson River.

For this analysis, we aggregated social vulnerability data into quartiles, with census tracts in the top quartile having the highest social vulnerability In New York State, the areas with the highest social vulnerability are in upper Manhattan, including Harlem and Spanish Harlem, several areas in Brooklyn near Sunset Park, Bensonhurst, and Gravesend, and various points in Queens, including the Rockaways, Jamaica estates, and Flushing. Around the rest of the state, pockets of high social vulnerability exist near Fort Drum/Watertown and Monticello. Almost all of New York City and lower Westchester County are hot spots of high social vulnerability, with additional hot spots near Monticello, Binghamton, Syracuse, Rochester, and Buffalo. Notably, Syracuse, Rochester and Buffalo include many "cold spots" of low SVI, indicating a dynamic of well-to-do suburbs and more vulnerable central cities. Other cold spots exist outside of Albany and Saratoga Springs along the upper Hudson River.

The majority (51.3 percent of New York State's population lives in areas in the top half of social vulnerability, and the plurality (27.3 percent) live in the top quartile of social vulnerability. The state's population is also growing more in areas with higher social vulnerability, with 70.8 percent of the state's population growth between 2012 and 2022 happening in areas in the two top quartiles of social vulnerability.

2022 population, by social vulnerability

2012-2022 population growth, by social vulnerability



These population trends indicate substantial displacement risk, as areas home to socially vulnerable groups experience a population influx, and existing residents face increasing displacement risk due to rising housing costs.

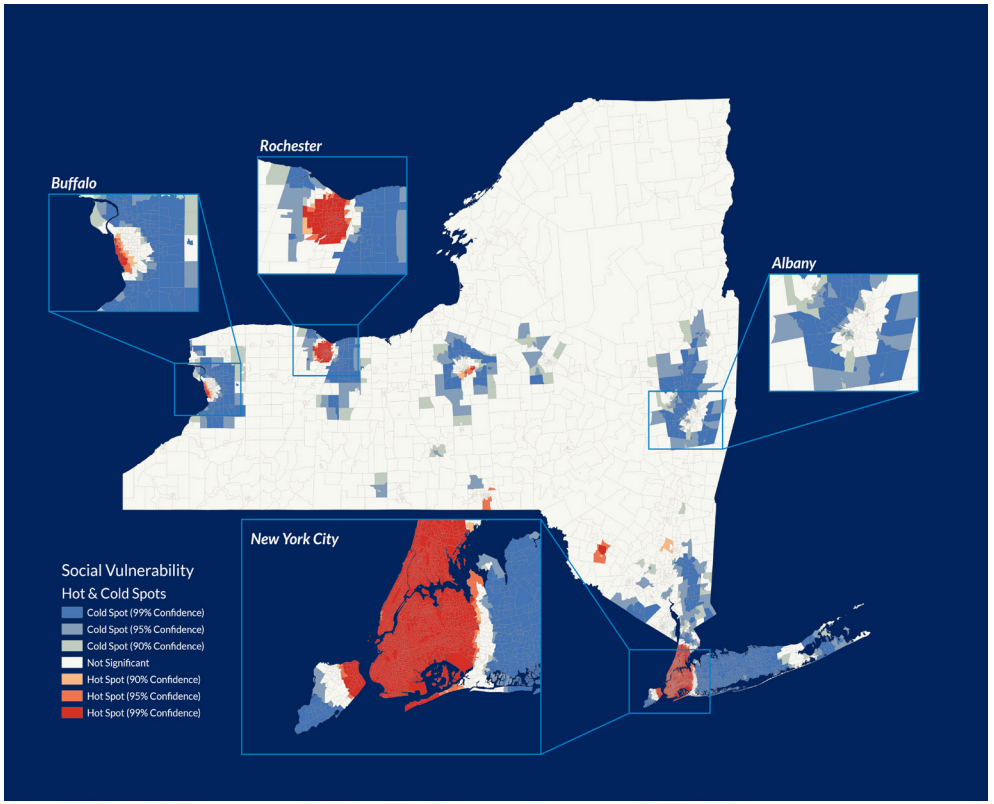
Overlaying climate risk and social vulnerability

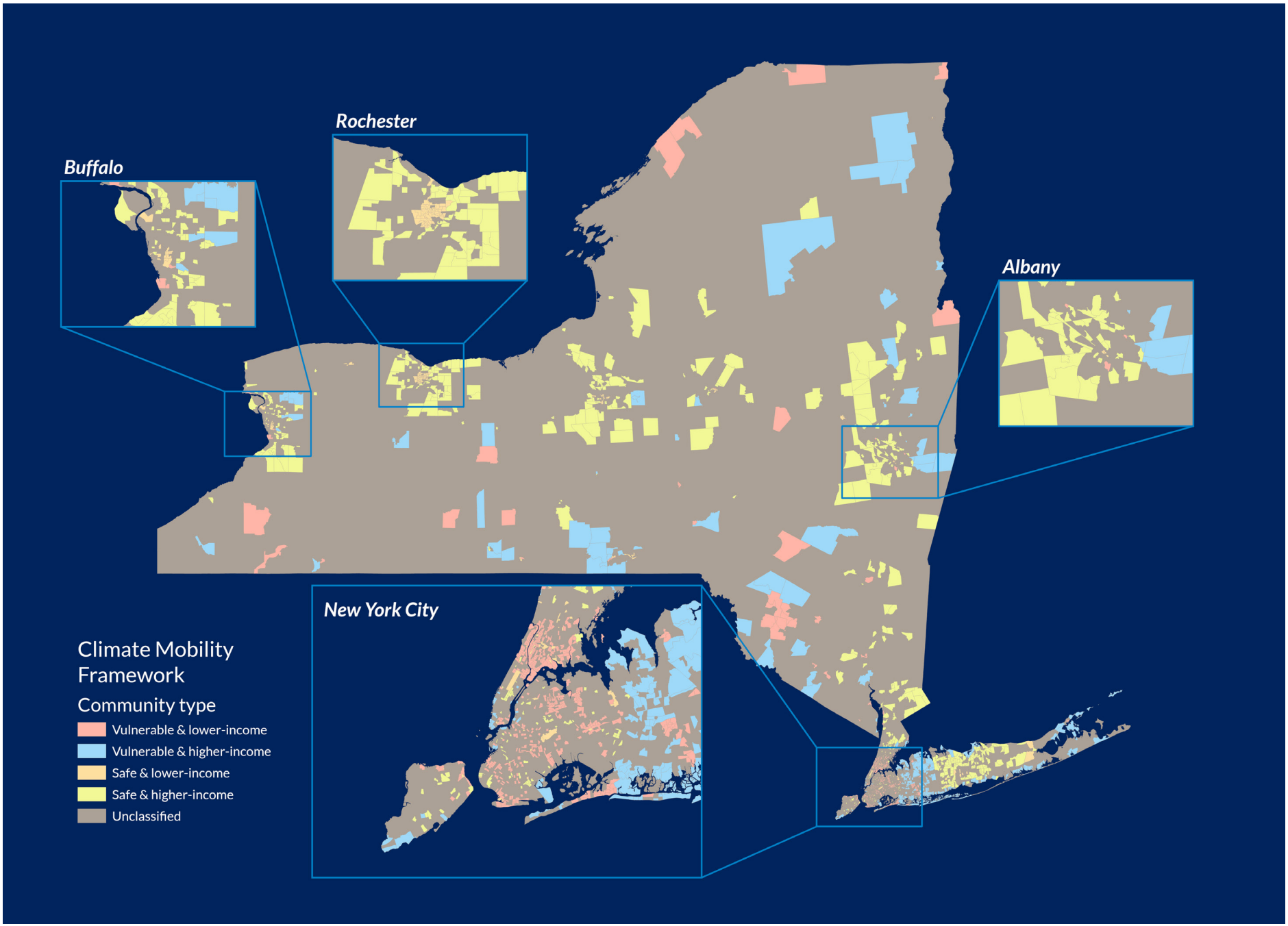
As in SGA's climate mobility framework, vulnerable & lower-income communities (with high climate risk and high social vulnerability) and safe & lower-income communities (with low climate risk and high social vulnerability) are most likely to face significant displacement pressures.

Most of New York State's vulnerable & lower-income communities are located in New York City and Westchester County, with smaller pockets near Watertown/Fort Drum, Monticello, and a few other isolated pockets throughout the state. These communities are most likely to directly experience climate hazards and become displaced as a result.

New York State contains very few safe & lower-income communities, with small areas of Brooklyn, Queens, and Westchester County falling into this category. There are also notable pockets in the Buffalo area, Rochester, Syracuse, and Utica—in these locations, residents are most vulnerable to displacement from an influx of climate-displaced people.

While there is relatively newfound recognition of the potential for climate havens in upstate New York, such as Buffalo and Rochester, they are receiving comparatively little population growth when considered in the context of state-wide trends.




Buffalo
Rochester
Albany
New York City
Climate Mobility Framework
Community type
Vulnerable & lower-income
Vulnerable & higher-income
Safe & lower-income
Safe & higher-income
Unclassified

CASE STUDY

Climate haven strategies in Buffalo, NY

Located on the shores of Lake Erie, Buffalo is well-positioned to receive climate-displaced people, thanks to its easy access to abundant freshwater, large expanses of nearby agricultural land, moderate weather, diverse job pool, relatively affordable housing, well-performing school system, and more than 16,000 lots of underutilized or unoccupied urban space that can be used to accommodate an increased population.[89]

Buffalo community leaders stepped in to provide assistance to some of the 130,000 people who fled Puerto Rico after Hurricane Maria and settled elsewhere in the U.S.[90] Thanks to the support of the existing Puerto Rican community, particularly organizations like the Hispanic Heritage Council of Western New York (WNY), nearly 5,000 Puerto Ricans permanently relocated to Buffalo.[91] They've become parishioners at the city's bilingual churches, enrolled in the Buffalo City School District, become regulars at local restaurants and bakeries, and started jobs in trades, sales, manufacturing, and other sectors.[92]

Dianiz Román, one such climate-displaced person who now works in the Buffalo school system, noted that Puerto Ricans have integrated well into the community, saying, "When you go into a store, you hear people speaking in Spanish, saying 'hola'. It's nice."[93] Casimiro Rodriguez, Sr., president emeritus and founder of the Hispanic Heritage Council of WNY, agreed, saying that the climate-displaced people are "part of the fabric of western New York now."[94]

Three years after the arrival of people displaced by Hurricane Maria, Buffalo recorded its first population gain in 70 years.[95]

Buffalo leaders have recognized that the city is likely to continue receiving climate-displaced people, with former mayor Byron Brown, in his 2019 State of the City address, even calling Buffalo a "Climate Refuge City."[96] The regional economic development organization Invest Buffalo Niagara has even used the claim to attract new residents, and has highlighted Buffalo's moderate climate, fresh water, and access to hydropower in its "Be in Buffalo" relocation campaign.[97]

Prioritizing pro-housing initiatives

Zoning reform: Buffalo's Green Code, developed by the Office of Strategic Planning, focuses on the city's land use, guiding development to, among other goals, help create walkable neighborhoods and boost waterfront resilience.[98] Through the Green Code, Buffalo became the first U.S. city to eliminate arbitrary parking requirements, allowing developers to instead estimate parking needs based on demand, and, as a result, development activity has increased, particularly mixed-use and walkable developments.[99] This development ordinance was partially funded through Governor Cuomo's $100 million Cleaner, Greener Communities Grant Program, which helps communities in New York State create comprehensive plans and implementation strategies in pursuit of a more sustainable future.

Housing-supportive transportation: The Department of Public Works, Parks, & Streets' Bicycle Master Plan Update, funded by the city, the New York State Department of Transportation, and the New York State Energy Research & Development Authority (NYSERDA), outlines the city's goals for its bicycle infrastructure.[100] The plan, according to NYSERDA President & CEO John B. Rhodes, "will not only help current cyclists to better move around the city but makes room for hundreds more to enjoy this activity," creating safer, more accessible transportation infrastructure for all.[101]

Preparing for climate hazards

Green infrastructure: As part of the Rain Check Initiative, which implements green stormwater infrastructure, like rain gardens and bioswales, the Buffalo Sewer Authority released its Rain Check 2.0 Opportunity Report.[102] In this report, the Sewer Authority identified areas of the city with insufficient stormwater infrastructure, taking into account both traditional and green infrastructure, and further used socioeconomic and environmental indicators to highlight equity priority areas most in need of public investment.

Additionally, thanks to funding from the U.S. Forest Service's Urban and Community Forestry Program, the Buffalo Department of Public Works, Parks, & Streets established the Buffalo Equity in Street Trees Planting Program to support the city's urban tree canopy, especially in marginalized neighborhoods that have historically seen fewer investments into this critical part of green infrastructure.[103] Congressional Rep. Brian Higgins, who advocated for Buffalo's receipt of this grant, highlighted this program's potential to spur "neighborhood revitalization through projects delivering greener, healthier communities."[104]

Looking forward

Because of these and other efforts, Buffalo received a bronze certification from New York State's Climate Smart Communities initiative, indicating substantial commitment to climate mitigation and resilience.[105]

As the city continues to bolster its position as a climate haven, it needs to ensure that current residents are not displaced by an influx of climate-displaced people. Buffalo has topped Zillow's list of the hottest housing markets in that nation for two consecutive years, with housing costs rapidly rising as the city adds more jobs than housing.[106] These cost increases particularly harm socially vulnerable communities in Buffalo, who are most at-risk of displacement, and as demand for housing increases, so will prices. To combat this, Buffalo should utilize anti-displacement tools, such as inclusionary zoning, support for community land trusts, or tax abatement programs. To support both existing and new residents, Buffalo must also strengthen its social infrastructure, such as by supporting small businesses, celebrating community cultures, expanding green spaces, or by creating resilience hubs.

Importantly, the city must continue partnering with community-based organizations to ensure community needs are met during this transition period. People United for Sustainable Housing (PUSH) Buffalo, for example, is well-known in the city for its conversion of vacant lots into affordable housing and retail space for small businesses, green jobs training center, tenant advocacy and political advocacy, and commitment to an equitable green transition.[107]

CASE STUDY

Climate haven strategies in Minneapolis, MN

Minneapolis, nicknamed the "City of Lakes," has often been cited as a climate haven community.[108] It has a cool climate, thanks to its northern latitude, and its waterfront along the Mississippi River and the nearby Great Lakes provide ample freshwater.[109] Minneapolis, compared to other areas of the country, is also relatively insulated from climate-related disasters; only 3 percent of Minnesotans live within the 500-year floodplain, and few properties are expected to see a significant increase in flood risk over the next 30 years.[110] As a result, Minneapolis is well-positioned to receive people fleeing areas that experience more severe impacts from climate change, like sea level rise or environmental disasters. Low cost of living (due in part to the city's many efforts to reduce housing costs),[111] combined with growing industries, supported by federal and state investments,[112] also make Minneapolis an attractive destination for climate-displaced people.

Minneapolis, due to the many policies passed by local leadership to transform the city's built environment, has earned national renown for its pursuit of smart growth goals.[113] Many of these policies have been developed with the understanding that they will be necessary to prepare Minneapolis's built environment for people fleeing climate disasters.

Heather Worthington, the former Director of Long Range Planning at the city's Department of Community & Economic Planning, made clear that the city's climate change policy is centered on the fact that Minneapolis "will be a place for climate refugees" and "will have a lot of development pressure as a result of climate change."[114]

Prioritizing pro-housing initiatives

Zoning reform: In 2019, the Minneapolis City Council passed the Minneapolis 2040 Comprehensive Plan, capping off a yearslong process that began in 2016.[115] The plan outlines the city's implementation strategies to, among other things, spur housing construction, create more public spaces, increase the urban tree canopy, implement multi-modal transportation infrastructure, invest in historically disinvested communities, support artists and creative workers, minimize displacement, and support small businesses.

Notably, this plan updated single-family zoning regulations—which are largely the result of efforts to maintain racial segregation—to allow duplexes and triplexes citywide, making Minneapolis the first major U.S. city to end single-family-only zoning.[116] State Senator (and mayoral candidate) Omar Fateh touted that, through the Minneapolis 2040 Plan, "Minneapolis has led the way on housing affordability, climate action, and reversing the racist legacy of exclusionary zoning."[117]

Infill development: Minneapolis has participated in the U.S. Department of Housing & Urban Development's Neighborhood Stabilization Program since 2008, having been granted (in partnership with Hennepin County, the neighboring City of Brooklyn Park, and the Minnesota Housing Finance Agency) nearly $20 million in funding to purchase and redevelop foreclosed and abandoned homes in the city.[118] Minneapolis CPED also applies on property owners' behalf for grants to remediate and redevelop brownfields, through programs offered by Hennepin County, the Metropolitan Council (the regional planning organization for the Twin Cities area), and the State of Minnesota.[119]

Housing-supportive transportation: The Transportation Action Plan, enacted in 2020, describes the city's efforts to expand walking, biking, and public transit infrastructure, outlining ongoing and future projects by city agencies to increase access to safe multimodal transportation infrastructure.[120]

Anti-displacement tools: The Unified Housing Policy, established in 2023 to align relevant city programs with Minneapolis 2040, establishes inclusionary zoning requirements and affordability requirements for housing development projects receiving city financial assistance.[121] Through CPED's $18 million Affordable Housing Trust Fund, the city further works to maintain access to affordable housing in the city by financing multifamily rental projects where at least 20 percent of housing units meet affordability requirements.[122]

Preparing for climate hazards

Green infrastructure & weatherization programs: In 2023, the Minneapolis City Council passed the Climate Equity Plan, an update to the prior Climate Action Plan with a greater focus on addressing environmental injustices and achieving an equitable green transition.[123] It set out the city's goals to advance, support community health, reduce wealth inequality, and boost climate resilience. To implement the strategies outlined in the plan, the city established the Climate Legacy Initiative, with at least $10 million in annual funding raised from franchise fees on utilities.[124] The initiative, implemented by several city agencies including the Office of Public Service and the Departments of CPED, Health, Intergovernmental Relations, and Public Works, includes programs to measure localized air quality, support tree planting, track building water & energy use, improve the energy efficiency of homes, provide green career training to youth, and fund rooftop solar installation.[125] In particular, the city focuses this work on "green zones," where most effort is needed to address environmental injustices.[126]

Looking forward

Minneapolis' various efforts to reform its land use and transportation systems, support affordable housing, and prepare its built environment for the impacts of climate change make it especially well-equipped to receive climate-displaced people. However, the city may also benefit from efforts to guide development away from areas exposed to climate hazards, such as through climate-informed zoning, transfer of development rights programs, or voluntary buyout programs. Minneapolis is considered to have a major flood risk, primarily along the Mississippi riverfront; facilities like hospitals, fire stations, and wastewater treatment facilities, are particularly exposed, having a severe flood risk rating.[127] Additionally, advocates and policymakers should invest in social infrastructure, such as by supporting small businesses, celebrating community cultures, expanding green spaces, or by creating resilience hubs.

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