



# A Perfect Storm

## Extreme Weather as an Affordable Housing Crisis Multiplier

By Guillermo Ortiz, Heidi Schultheis, Valerie Novack, and Aleah Holt August 2019



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**Authors' note:** *The disability community is rapidly evolving to using identity-first language in place of person-first language. This is because it views disability as being a core component of identity, much like race and gender. Some members of the community, such as people with intellectual and developmental disabilities, prefer person-first language. In this report, the terms are used interchangeably.*

# Introduction and summary

Weeks after Hurricane Michael hit the Florida Panhandle last fall, leaders of the local recovery initiative estimated that as many as 20,000 residents of Bay County—more than 1 in 10 residents in the community of 185,000—were experiencing homelessness as a result of the storm.<sup>1</sup> Rental homes make up nearly three-fourths of the community’s damaged properties, and when residents scrambled to find new places to live, they discovered that rents had skyrocketed due to the sudden supply shortage.<sup>2</sup> The Federal Emergency Management Agency (FEMA) has been slow to provide temporary homes—which are only offered for up to six months—and is approving very few extension requests for the small number of residents lucky enough to receive temporary housing.<sup>3</sup> As a result, many residents are living in structures that are not fit for human habitation, including damaged homes and tents, while others wait and wonder what will happen when the clock runs out on their FEMA housing.<sup>4</sup>

The loss of housing in low-income communities due to extreme weather events such as Hurricane Michael, which killed 49 people and caused more than \$25 billion in damage, further compounds the nationwide affordable housing crisis.<sup>5</sup> Currently, there is a national shortage of 7 million affordable and available rental homes for extremely low-income renters.<sup>6</sup> This shortage disproportionately affects communities of color and disabled people; Native American, Black,<sup>7</sup> Hispanic, and disabled renters are all more likely to have extremely low incomes than renters who do not fall into these groups.<sup>8</sup> And with affordable homes increasingly unavailable to renters, homelessness is on the rise. Families living paycheck to paycheck, trying to manage growing housing prices with a shortage of housing assistance, are left doubling up with friends or family, living in shelters, or stuck in unsheltered homelessness.<sup>9</sup>

Efforts to address the devastating impacts of natural disasters, which are increasing in both severity and frequency as a result of climate change, have thus far failed to consider the threat multiplier effect that more extreme weather and scarce supply of affordable housing has on frontline communities—those most likely to experience the worst and first climate impacts.<sup>10</sup> Solutions that offer only temporary relief in

the wake of disasters and/or are directed to wealthier households and homeowners will perpetuate the loss of affordable housing stock that, when damaged, is often demolished rather than rebuilt.<sup>11</sup> Moreover, they will increase displacement, housing poverty, and homelessness.<sup>12</sup>

As people across America become more concerned about climate change,<sup>13</sup> local, state, and federal policymakers must be diligent in building more resilient and prepared communities. Equitable climate solutions must include investments in programs that reduce and prevent homelessness, increase housing affordability, and ensure that accessible, affordable homes are built to last using high-quality materials and innovative construction methods that can withstand both existing and future climate impacts.

These efforts must prioritize the areas that are most vulnerable to climate risks, including low-income neighborhoods and communities of color, which, due to historic housing discrimination and residential segregation, often are located in flood-prone areas; are exposed to disproportionately high heat, pollution, and other environmental risks; and have the fewest resources to prepare for and recover from extreme weather events. Specifically, policymakers must take the following actions to build strong, healthy, fair, accessible, and affordable communities that are resilient to future climate change impacts:

### **1. Support equitable evacuation and disaster recovery for all survivors**

Congress should direct FEMA and the U.S. Department of Housing and Urban Development (HUD) to coordinate to ensure equitable evacuation services and timely assistance that comply with all relevant necessary laws and standards, including the Fair Housing Act's disparate impact standard.

### **2. Expand investments in federal rental assistance and homeless assistance programs**

Congress should significantly expand funding for federal rental and homeless assistance programs to meet the needs of all low-income renters and prevent and end homelessness.

### **3. Prioritize equitable housing policies and just community development**

State and local leaders should invest in equitable and resilient community development without displacement, prioritizing low-income communities to improve public health, safety, and livability among all communities.

#### **4. Build resilient infrastructure**

Federal and local leaders should invest in infrastructure that is built to last, including by improving the design and resilience of new and existing infrastructure.

#### **5. Increase funding for disaster mitigation and climate change adaptation strategies**

Federal policymakers should substantially increase funding for mitigation and adaptation initiatives so that state and local leaders are equipped with the resources and knowledge they need to improve the resilience of their communities to the impacts of climate change.

This report provides background on the interrelated crises of homelessness and rising housing costs in the United States. It discusses how the increase in frequency and intensity of extreme weather events, coupled with inequities in the country's disaster response systems, has disproportionate, hard-hitting impacts on frontline communities—including low-income individuals and people experiencing homelessness. Finally, the report discusses the five recommendations listed above in greater detail, laying out steps for policymakers at the local, state, and federal levels.



# The dual crises of diminishing affordable housing and rising homelessness

Families who rent homes in the United States increasingly struggle to find and afford housing.<sup>14</sup> Rents have climbed steadily, outpacing wage growth for nearly 20 years.<sup>15</sup> Of the country's 43 million renter households in 2016, nearly half—or more than 20 million—spent more than 30 percent of their household income on rent; 11 million of these households were severely cost-burdened, spending more than half of their income on rent.<sup>16</sup> There is not a single county, metropolitan area, or state in the country where a full-time worker earning the prevailing minimum wage can afford to rent a two-bedroom apartment.<sup>17</sup> Workers of color and disabled workers are even less likely to be able to afford a home. Among full- and part-time workers, Black workers earn 25 percent less than their white colleagues and report higher instances of unfair hiring and promotion practices.<sup>18</sup> In some instances, workers with disabilities can even be paid a subminimum wage.<sup>19</sup>

Federal rental assistance programs, including the Housing Choice Voucher Program, public housing, and project-based rental assistance, help more than 10 million people in more than 5 million households rent modest, affordable homes.<sup>20</sup> However, due to insufficient funding, less than 1 in 4 eligible low-income renter households actually receive assistance.<sup>21</sup> These circumstances reflect the fact that there is a shortage of 7 million affordable and available rental homes for extremely low-income renters.<sup>22</sup> This shortage is even more acute for people with disabilities, as less than 1 percent of all housing stock nationwide is wheelchair-accessible, and less than 5 percent is livable for people with moderate mobility disabilities.<sup>23</sup>

The positive correlation between the share of income spent on rent and the rate of homelessness largely explains the recent nationwide increase in homelessness.<sup>24</sup> After decreasing steadily for six years thanks to federal coordination of programs by the U.S. Interagency Council on Homelessness and targeted investments in evidence-based strategies,<sup>25</sup> the population of people experiencing homelessness has grown for the past two years,<sup>26</sup> with people of color and disabled people both vastly overrepresented.<sup>27</sup> On a single night in January 2018, the population experiencing homelessness in the United States was more than half a million—comparable in size

to the population of Albuquerque, New Mexico.<sup>28</sup> What is more, half of this population lives in just five states: California, New York, Florida, Texas, and Washington.<sup>29</sup> It is not coincidental that these same states contain 8 of the 10 most expensive metropolitan areas in the country.<sup>30</sup> This combination of high living costs and a lack of affordable housing only exacerbates the impacts of extreme weather events for the frontline communities struggling to find shelter in a changing climate.



# Preparing for a changing climate: Finding shelter from the storm

Another contributor to homelessness is extreme weather; the five states listed above are also among the six most disaster-prone states in the United States and have experienced several billion-dollar weather and climate events since 2017.<sup>31</sup> In 2018, for the first time, HUD's Annual Homeless Assessment Report included the number of people experiencing homelessness who were sheltering in locations specifically for people displaced by presidentially declared natural disasters: 3,864.<sup>32</sup> While the report did not specify in which states these people were sheltering, it is likely that they were displaced by any number of the devastating natural disasters that occurred during 2017—from hurricanes Harvey, Irma, and Maria in the Gulf Coast to the wildfires in California.<sup>33</sup> In fact, from 2017 to 2018, homelessness in the greater Houston area grew by 15 percent, according to a report prepared for the Way Home Continuum of Care—a regional planning group that identifies community needs and coordinates housing and supportive services funding.<sup>34</sup> This increase occurred as Hurricane Harvey compounded the local affordable housing shortage by damaging almost 200,000 homes across Texas, nearly 2,000 of which were federally subsidized.<sup>35</sup> In Puerto Rico, where Hurricane Maria destroyed more than 70,000 homes,<sup>36</sup> it is hard to ascertain the total count of people who lost housing since nearly 130,000 residents left the island between July 2017 and July 2018, partly due to the storm.<sup>37</sup> Yet in one Puerto Rican town, Cataño, an astounding 60 percent of residents were experiencing homelessness following the storm.<sup>38</sup> These examples show how extreme weather is affecting low-income communities and people experiencing homelessness and signal a larger trend of worsening climate disasters across the United States.

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## Extreme weather events are growing in intensity and frequency

Since 1980, the United States has sustained 250 weather and climate disasters, with increasing frequency in recent years.<sup>39</sup> According to the National Oceanic and Atmospheric Administration (NOAA), the total cost of these events has exceeded \$1.7 trillion.<sup>40</sup> From 2016 through 2018, the United States experienced a total of 45

billion-dollar weather and climate disasters, or an average of 15 events per year.<sup>41</sup> This marks the highest annual average on record and more than double the annual average from 1980 through 2018—6.2 billion-dollar events per year, adjusted for inflation.

To put this into perspective, 2019 has already experienced six weather and climate disaster events with losses exceeding \$1 billion, including two flooding events and four severe storms. The first severe storm, occurring in late February, blasted three regions of the country over the course of a weekend.<sup>42</sup> In this same storm cycle, the South experienced tornadoes and flooding, while high-wind damage swept across the Ohio Valley region and the Northeast. Heavy rain followed, causing major flooding along parts of the Ohio, Mississippi, and Tennessee rivers. This first storm cycle was shortly followed by the “bomb cyclone” in March, which brought further blizzard conditions and extreme flooding to the Midwest.

These recent billion-dollar disasters hit specific regions of the United States; however, a wide range of possible disasters—such as wildfires, flooding, hurricanes, and polar vortexes—is increasing in frequency and severity as a result of climate change and is bound to reach nearly all states. Extreme weather events have and will continue to transform where and how people live, as well as their overall quality of life.<sup>43</sup>

The impacts of extreme weather on both natural and built systems have historically been considered in silos, with their needs often addressed by separate disaster response efforts.<sup>44</sup> In the past, disaster recovery planning has failed to acknowledge that the varied risks and compounding effects of extreme weather impacts are not homogenous across regions and populations. Of course, natural environments—plains, rivers, and wetlands—often experience intense damage from extreme weather events. But the built environment, which includes water and transportation systems, faces similar scales of destruction. For this reason, both worlds are inextricably linked and should not be viewed as separate entities.

The damage that extreme weather can inflict upon communities should be enough to spur action. In 2019, for example, flooding in the Midwest destroyed at least 2,000 homes in Nebraska alone,<sup>45</sup> with damage to homes and businesses estimated to be at least \$85 million.<sup>46</sup> The 155 mph winds of Hurricane Michael wreaked havoc in the Florida Panhandle and charged north through its neighboring states—Georgia, the Carolinas, and even Virginia. Mexico Beach, Florida, was one of the hardest-hit areas; the seaside city of about 1,200 people lost 80 percent of its homes.<sup>47</sup> Overall, NOAA estimates that Hurricane Michael caused more than \$25 billion in damages, leading to significant economic losses in the affected areas.<sup>48</sup>

Similarly, the wildfires of Paradise, California, destroyed roughly 15,000 homes, cost \$8 billion, and resulted in 50,000 people being displaced from their community.<sup>49</sup>

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## Low-income communities and people experiencing homelessness are particularly vulnerable to extreme weather events

Not only does extreme weather drive up homelessness by damaging and destroying housing stock; it also has devastating effects on people who are already experiencing homelessness—particularly for the nearly 200,000 unsheltered people nationwide.<sup>50</sup> This population could not heed officials’ warnings to retreat indoors from the life-threatening cold of the Midwestern polar vortex or to stay inside while the California wildfires filled the air with asthma-inducing smoke and ash;<sup>51</sup> nor could they retreat to their roofs to escape the unprecedented floods of Hurricane Harvey.<sup>52</sup> They are among those most likely to develop a variety of mental illnesses—including anxiety, depression, and post-traumatic stress disorder—as a result of weather-related disasters.<sup>53</sup> With climate change expected to increase the intensity and frequency of extreme weather events,<sup>54</sup> people experiencing homelessness will likely suffer worsening physical and mental health outcomes and increasingly die from heat waves, floods, and disaster-induced outbreaks of illness such as West Nile virus.<sup>55</sup>

Despite the urgent need to preserve and increase the number of affordable rental homes for low-income households, the stock of this precious resource is steadily dwindling. Analysis from the Hudson Institute shows that about 60 percent—or 8.7 million—of the 15 million low-cost rental units that existed in 1985 were no longer affordable by 2013.<sup>56</sup> Nearly half of these units—4.1 million—were lost permanently from the rental market. The inadequate supply of affordable rental homes is also driven in part by a lack of resilient design principles and by the fact that they are often built in isolated and underresourced neighborhoods with shoddy infrastructure and in poor environmental conditions, leaving these structures and their tenants more vulnerable to extreme weather events.<sup>57</sup> When these homes are damaged by natural disasters, they are more likely to be demolished than rebuilt.<sup>58</sup>

A 2013 Center for American Progress report, “A Disaster in the Making: Addressing the Vulnerability of Low-Income Communities to Extreme Weather,” discusses how many U.S. disaster recovery and resilience policies fail to address the ongoing vulnerabilities experienced by low-income households.<sup>59</sup> When extreme weather hits, families facing these conditions can be driven deeper into economic distress. Analysis shows that housing assistance after extreme weather events often favors

middle-class households, particularly homeowners.<sup>60</sup> Superstorm Sandy illustrated this trend: While much of New York City was able to regain a sense of normalcy following the storm, many low-income elderly and disabled residents in public housing buildings were stranded in their apartments for weeks.<sup>61</sup> It is critical for disaster recovery planning to go hand in hand with fair housing planning so that it considers the disproportionate impact of racism on low-income affordable housing residents and frontline communities that have been historically relegated to environmentally hazardous areas.

Furthermore, the increase in intensity and frequency of extreme weather events will expose many places to multiple climate-related impacts at the same time, prolonging recovery times and making it more difficult for communities with fewer resources to rebuild.<sup>62</sup> Two extreme weather events from 2018, the California wildfires and Hurricane Florence, serve as examples of such outcomes. While Paradise, California, fought the state's most devastating wildfire in history, heavy rain triggered warnings for flash floods, rockslides, and debris flows in areas near the fire—thus compounding the danger.<sup>63</sup> Similarly, the Carolinas endured extreme flooding more than two weeks after Hurricane Florence made landfall.<sup>64</sup> Large portions of southeastern North Carolina saw rainfall exceeding two feet, totals typically seen near the Gulf Coast.<sup>65</sup> Every year, communities across the United States are experiencing trauma due to extreme weather. More must be done to safeguard these communities.

As Hurricane Maria illustrated, extreme weather can easily cut off access to basic needs, including housing, running water, electricity, and food systems—effects that are felt more strongly in frontline communities with poor infrastructure.<sup>66</sup> Hurricane Maria, a powerful Category 4 hurricane with 150 mph winds, ravaged Puerto Rico and sent shockwaves through the island, cutting its residents off from the rest of the world and damaging more than just the available housing stock. The storm knocked out 80 percent of the island's power lines, affecting daily necessities such as clean water, food storage, transportation infrastructure, telecommunications, personal electric medical equipment, and a host of other needs.<sup>67</sup> Experts estimate that nearly 3,000 Puerto Ricans lost their lives in the four months following Hurricane Maria due to conditions on the island.<sup>68</sup> Without housing that is stable, fair, and affordable, the risks of climate displacement and homelessness increase.<sup>69</sup> Hurricane Maria is a painful reminder of how extreme weather can spark both humanitarian and housing crises.<sup>70</sup>

Furthermore, recent studies show that damage from extreme weather events has intense effects on housing stock. The costs associated with rebuilding housing have many economic implications on the market and ultimately affect the decisions

on where and how much affordable housing can be replenished. A study by the National Bureau of Economic Research found that the long-term effects of “severe disasters”—which it defines as causing 25 or more deaths—include an influx of lower-income residents since the severe damage causes housing to become more affordable, bringing more low-income residents into areas that may have previously been middle or higher class.<sup>71</sup> This sustains the disproportionate risks that low-income residents face, including poor health conditions, environmental hazards, and insufficient disaster preparedness and response.

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## Federal disaster assistance efforts must be better targeted to frontline communities

The Fourth National Climate Assessment notes that current U.S. infrastructure and building design standards do not take future climate trends into account.<sup>72</sup> However, recent findings on the wildfires that ravaged Paradise, California, provide some hope. A landmark 2008 building code requiring fire-resistant roofs, siding, and other safeguards appears to have protected 51 percent of the 350 single-family homes in the path of the Camp Fire, leaving them essentially undamaged. By contrast, only 18 percent of the 12,100 homes built prior to 2008 escaped wildfire damage.<sup>73</sup> Equitable and resilient housing development and mitigation strategies present the greatest opportunities for combating the housing crisis in the face of extreme weather. Local governments that want to build affordable, accessible housing should consider the interconnected sectors affected by extreme weather events, as seen after Hurricane Maria. Jurisdictions that fail to act will unfortunately pay a high price.<sup>74</sup> With 2019’s hurricane season well underway, federal, state, and local policymakers must acknowledge that forward-looking and equitable housing policies are essential to protect the supply of affordable housing and to safeguard public health, well-being, and prosperity in the face of expected extreme weather in a changing climate. Community development and housing initiatives that do not consider this approach will increase disaster rebuilding costs and put already vulnerable local businesses and communities further in harm’s way.

Currently, housing assistance and rebuilding efforts in the disaster recovery period are often targeted at homeowners and wealthier survivors,<sup>75</sup> deepening entrenched racial and socio-economic inequities and exacerbating the dual crises of homelessness and inadequate low-cost housing.<sup>76</sup> But even when funds are made available to rebuild affordable rental housing during recovery from extreme weather, progress is slow. Of the 33 New York City Housing Authority buildings damaged by

Superstorm Sandy in 2012, only one rebuild had been completed five years later.<sup>77</sup> Expected completion dates of other buildings stretch out until 2021, nearly a decade after the storm, and some are still in the design phase.

The Fair Housing Act (FHA) of 1968 requires that federal funds be used to remedy the harms of segregation, invest in marginalized communities, and build homes in high-opportunity areas.<sup>78</sup> Actions that do not comply with the FHA's terms and that have a disproportionate effect—or disparate impact—on communities protected by the FHA risk violating the law and should be closely scrutinized. Disparate impact violations refer to when a legal doctrine determines that a facially neutral policy is discriminatory because it has a disproportionate adverse impact on protected classes under the FHA. For example, several states—including Louisiana, Mississippi, Texas, and New Jersey—have been sued over their inequitable and discriminatory allocations of disaster recovery funds, which were found to be in violation of the FHA.<sup>79</sup> These lawsuits have resulted in monetary settlements of up to \$240 million to benefit low-income households and have required states to take a variety of other actions in order to comply with fair housing requirements.

Similarly, FEMA's role in disproportionately directing recovery funds in response to recent disasters to white, wealthy homeowners—thereby entrenching inequities—may have violated the disparate impact doctrine of the FHA.<sup>80</sup> If FEMA were found to violate the FHA, this would mark another example of the Trump administration taking steps to dismantle civil rights protections. For example, prior to his appointment as HUD secretary, Ben Carson derided the 2015 Affirmatively Furthering Fair Housing (AFFH) rule, which aims to prevent discrimination and segregation and to invest in historically marginalized communities, as “social engineering.”<sup>81</sup> Under Secretary Carson's watch, HUD sought to indefinitely delay implementation of the rule and later removed a key assessment tool from its website, despite evidence that AFFH was starting to drive localities to address segregation and housing disparities.<sup>82</sup> Most recently, HUD proposed changes to AFFH that would undermine its efficacy.<sup>83</sup> Congress should closely monitor the next actions that HUD takes regarding AFFH to ensure that federal civil rights protections are rigorously enforced.

The loss of affordable rental homes due to disasters can compound stress for people who are already disadvantaged by racist, classist, and ableist practices. Low-income communities and communities of color are hit hardest by extreme weather events because they are often located in or near flood-prone areas and heat islands, where concrete and asphalt surfaces absorb and radiate heat.<sup>84</sup> This is part of an ongoing legacy of discriminatory housing and infrastructure policies that continue to push

communities of color and low-income people into high-poverty, low-opportunity areas with poor infrastructure.<sup>85</sup> These same communities are also often overburdened by disproportionately high air and water pollution, an example of the environmental racism that has led to the concentration of industrial facilities and other pollution sources in these communities.<sup>86</sup> Together, these unjust policies create barriers to homeownership, good jobs, quality schools, and health care and have helped perpetuate the racial wealth gap.<sup>87</sup>

Specifically, the use of nonresilient materials and construction techniques for affordable homes, the neglect of low-income renters and people experiencing homelessness, and the lax enforcement of fair housing laws have coalesced to place an undue burden on frontline communities. If these patterns continue, climate change will further compound the devastating effects of extreme weather with systemic issues related to lack of housing, poverty, and discrimination.



# Policy recommendations: Steps to shield frontline communities from extreme weather

Though the effects of climate change have and will continue to contribute to housing shortages and homelessness, local, state, and federal entities have tools that can help mitigate these effects. Below are a series of recommendations—spanning policy, programs, investment opportunities, and building strategies—that will assist in reaching the goal of resilient communities for all.

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## Support equitable evacuation and disaster recovery for all survivors

Congress should require FEMA and HUD to coordinate to ensure that all survivors in need receive equitable, timely, safe, and appropriate evacuation services and that they have safe and accessible temporary housing until they are able to obtain permanent housing that meets their needs—hewing closely to the principles of the Disaster Housing Recovery Coalition.<sup>88</sup> Moreover, evacuation and temporary housing plans should accommodate all survivors, including people with disabilities, people with service or emotional support animals, and people living in nursing homes, hospitals, other long-term care facilities, and shelters, as well as transitional housing facilities, group homes, and carceral facilities.<sup>89</sup> FEMA should also restore the number of Disability Integration Advisors sent to each disaster site to a minimum of 60.<sup>90</sup> These staff advise critical decision-makers on disaster practices, provide technical assistance about FEMA programs, and train deployable emergency officials.

Moreover, Congress should direct FEMA and HUD to collaborate more effectively to ensure the timely activation and smooth operation of the Disaster Housing Assistance Program (DHAP) following disasters. This program is essential in providing low-income disaster survivors with affordable, fair, decent, and safe homes as they work to get back on their feet.<sup>91</sup> Congress should pass the Housing Survivors of Major Disasters Act of 2019, which would require FEMA and HUD to work together to implement the DHAP for survivors of Hurricane Maria and to consider activating the program in the event of future presidential disaster declarations.<sup>92</sup> FEMA and HUD should also ensure that the process of obtaining disaster-related

government housing assistance is timely and accessible and that all survivors receive the housing assistance they need to fully recover; this includes providing housing for people who were experiencing homelessness before the disaster. In their role providing disaster relief assistance, federal and state governments must comply with HUD's rule regarding implementation of the FHA's disparate impact standard.<sup>93</sup>

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## Invest in federal rental assistance and homeless assistance programs

Federal rental assistance programs, including the Housing Choice Voucher Program, public housing, and project-based rental assistance, are currently funded at levels that serve only about 1 in 4 households that are eligible for housing assistance. These critically important programs ensure that older adults, people with disabilities, and families with children can keep a safe and affordable roof over their heads. Years of HUD budget cuts and federal disinvestment in these programs have resulted in insurmountably long waitlists, ongoing assistance shortages, and increased housing poverty. Congress should fund these programs, as well as the National Housing Trust Fund, the HOME Investment Partnerships Program, and several housing tax credits, at levels that fully support their operation, rehabilitation of units as necessary, and expansion to meet the needs of the tens of millions of households spending more than 30 percent of their income on rent.

Similarly, Congress should fund the McKinney-Vento Homeless Assistance Grants program—the heart of the federal effort to end homelessness—at a rate that will prevent and end homelessness for all populations, including LGBTQ people, youth, single adults, and people experiencing chronic homelessness. Given the large overlap between the populations that stand to benefit from meaningful investments in affordable housing and homeless assistance programs, investments in the latter should be informed by the rate at which new rental homes are built and the total number constructed.

Part of the reason why spending on these programs has been so low in recent years is the austere budget caps that were established by the Budget Control Act of 2011.<sup>94</sup> These budget caps severely limit spending on mandatory and discretionary programs, including those that increase housing affordability, until fiscal year 2021.<sup>95</sup> Since 2011, Congress has reached short-term agreements to provide higher levels of spending than the budget caps would otherwise allow.<sup>96</sup> In April, the House Budget Committee approved the Investing for the People Act of 2019, which would raise the budget caps on affordable housing and other programs that help ensure basic liv-

ing standards.<sup>97</sup> Congress should pass this bill to increase funding for these programs to the highest possible levels.

New homes must also be built to account for an increase in federal rental assistance, which will cause an uptick in demand due to more people exiting homelessness and other precarious housing situations and moving into stable, safe, and affordable housing. As CAP's "Homes for All" report proposes, the federal government should take a direct, active role in the large-scale production of 1 million high-quality, affordable rental homes over the next five years for families across the income spectrum.<sup>98</sup> This approach would encourage long-term affordability and build mixed-income communities, which are associated with increased economic mobility.<sup>99</sup>

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## Prioritize equitable housing policies and just community development

Due to policies and practices—both past and present—that continue to disproportionately affect people of color, low-income families, and people with disabilities, these communities are at risk of experiencing higher incidents of human and financial loss in extreme weather events. Federal, state, and local governments should prioritize investment in both the physical infrastructure and the quality of resources in at-risk neighborhoods to create equitable communities. One way to achieve this goal is for HUD to fully restore and aggressively implement the AFFH rule to address the long-standing disparities in housing needs and access within these communities.<sup>100</sup> Local and federal governments must invest resources in areas such as public transportation, open spaces and parks, broadband internet, and access to information, food access, reliable and clean energy grids, and water and wastewater systems.

While not exhaustive, investment in these areas would help to mitigate the effects of extreme weather on communities, provide access to necessary emergency information, allow individuals easier access to come and go from their neighborhoods, and grant access to food, energy, and water during emergencies.

Current affordable housing stock is vulnerable to damage during natural disasters in part due to its siting in locations with unsafe and outdated infrastructure. Equitable housing and community policy should strive to reduce structural vulnerability and insufficient resources and increase usability, accessibility, and safety. These investments must be made without displacing people from their communities, despite the increased cost of living that often accompanies the addition of amenities and more resilient housing. Local governments in these areas must implement anti-displace-

ment measures such as “right to return” policies, meaningful community involvement in investment efforts, and tenant protections in order to keep people in their communities as they are made more resilient.

Successful equitable community development requires prioritizing communities with the greatest needs while supporting all communities. The targeted universalism framework for policy design and implementation provides a means to address disparities in communities while supporting overall goals that benefit everyone.<sup>101</sup> This framework, which is sensitive to cultural and structural dynamics, can serve as guidance for zoning and planning officials and local lawmakers in their efforts to implement these recommendations. For example, Seattle’s Race and Social Justice Initiative employs this approach and exemplifies how city departments can effectively center racial equity in departmental planning.<sup>102</sup> The city’s sidewalk repair project began by identifying the neighborhoods in which sidewalks were in greatest disrepair, understanding that these areas would be prioritized for more repair funding than areas in which sidewalks were in better condition. Rather than simply carrying out spending and repairs based on this information, the plan went a step further; the city created a weighted index that considered equity criteria such as income, disability, auto ownership, and disease. The use of this index prioritized not only neighborhoods with high community development needs, but also communities that tend to be overlooked by such planning processes.

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## Invest in resilient infrastructure

Much of the country’s infrastructure—including buildings of all types—and sectors of the built environment, such as energy and transportation systems, were not designed to withstand the current climate conditions and increased frequency of extreme weather.<sup>103</sup> Inconsistent building codes, a growing population, and the fact that many cities’ infrastructure is positioned along coasts and rivers all contribute to infrastructure not being prepared to withstand extreme weather events.<sup>104</sup> Failure to invest in resilient infrastructure carries significant environmental and economic costs.<sup>105</sup> The increasing costs of damage from extreme weather validate existing infrastructure vulnerabilities.

While HUD has a prominent role to play in increasing housing affordability, resilience, and equity, other federal agencies must be allies in achieving these goals. In particular, the government-sponsored enterprises (GSEs) Fannie Mae and Freddie Mac, which can effectively set standards for many other stakeholders in the housing

market, could use the levers at their disposal to strengthen resilience standards.<sup>106</sup> By elevating the importance of resilience, they could shape nationwide standards in single-family homes and multifamily housing.

Damage to infrastructure has impacts beyond the physical structure; basic needs and services are disrupted, affecting social and economic activity, health, and quality of life.<sup>107</sup> Damaged transportation systems can reduce mobility and possibly cause lost wages. Health care services can become restricted or lost for a period of time, and daily uses of electricity such as lighting, heating, or air conditioning can be lost due to damaged electric grids—which can have dangerous health effects.<sup>108</sup> Businesses with supply chains that require the delivery of products can face severe financial impacts in the face of infrastructure damage. Furthermore, although extreme weather can strike in any geographical location, it disproportionately harms families who struggle to make ends meet and have the fewest resources to prepare for and respond to disasters—for example, low- and middle-income households and households with members who are disabled.<sup>109</sup> Existing social and racial inequities around housing and access to services are often exacerbated by extreme weather events.

The Fourth National Climate Assessment concludes that the United States does not currently invest enough resources to sufficiently rehabilitate the nation's existing infrastructure.<sup>110</sup> Congress must provide states with the technical and financial resources they need to build resilient infrastructure that can withstand the most extreme weather events and provide a chance of minimal or no damage to homes and buildings.<sup>111</sup> By supporting resilient infrastructure, federal, state and local policymakers can increase the environmental and economic returns on investment by lowering the risks of physical damage as well as social harms, such as relocation.<sup>112</sup> Specifically, they should take the following steps to support resilient infrastructure.

#### Congress should create state future funds

Across the country, budget shortfalls are often the driving cause preventing state and local leaders from executing basic tasks—such as making road repairs—that facilitate the provision of social services. Now, coupled with more frequent and intense extreme weather, the urgency to support crucial infrastructure upgrades and build strong and safe communities has increased. One opportunity for Congress to support state and local leaders on the frontlines of climate change impacts is to create State Future Funds—federally supported loan funds that encourage innovative transportation systems, energy infrastructure, and flood protections in the areas that need them the most, including low-income areas and communities of color.<sup>113</sup>

Ideally, State Future Funds would combine federal resources with state, local, and private sector dollars to support resilient energy and transportation infrastructure and flood protections, including in marginalized communities. The potential benefits of these funds include improved air quality, reduction of climate change risks, and an increase in communities' access to employment and education opportunities.

City leaders should adopt or improve design guidelines to account for changing climate conditions and extreme weather risks

Stable infrastructure is the first line of defense for communities and businesses exposed to flood risks and in need of safe evacuation routes during wildfires and storms. Yet recent climate disasters, including the California wildfires and flooding during Hurricane Michael, reveal how infrastructure failures can leave people stranded and at risk of harm or even death. To help protect public health and safety, city leaders should develop climate resiliency design guidelines—step-by-step instructions on how to integrate forward-looking climate data into the design of city projects. For example, in March 2019, the New York City Mayor's Office of Recovery and Resiliency updated its climate resiliency design guidelines to ensure that resilient design is an integral part of project planning processes.<sup>114</sup> This approach allows New York City to include resilient design choices as a critical component of its risk management, project, and financial planning, culminating in a resilience strategy that is tailored to the region. For affordable and other federally funded housing, climate designs could make use of resilient, high-quality materials and innovative techniques, such as modular construction, in order to minimize the damage these homes sustain during extreme weather events. To enhance the approach's effectiveness, city leaders should avoid one-size-fits-all solutions and develop climate resiliency design guidelines that respond to region-specific climate risks.

Congress should reform the Community Development Block Grant-Disaster Relief (CDBG-DR) program

Today, HUD's CDBG program is the federal government's largest and most widely used community development funding tool for state and local governments.<sup>115</sup> In the wake of presidentially declared disasters, CDBG-DR funds are allocated to states, counties, and cities based on the availability of supplemental appropriations to help address unmet needs for long-term recovery.<sup>116</sup> These funds are often used to fund construction or rehabilitation projects, recovery planning and administration, and pre-disaster mitigation activities—among many other activities. Since CDBG-DR funds are appropriated on a case-by-case basis, disaster assistance may be delayed before it reaches the communities that need it most. To cut down on the time it takes for frontline communities to receive federal disaster assistance,

Congress should pass the Reforming Disaster Recovery Act of 2019, which would permanently authorize the CDBG-DR program and make several reforms that aim to enhance the administration of the program.<sup>117</sup> For example, the bill would require any CDBG-DR-funded construction, repair, or rehabilitation to meet federal standards for flood risk mitigation and stormwater protection—an important step in rethinking how communities are designed to withstand future climate threats. The bill would also require grantees to prioritize the one-to-one replacement of destroyed or damaged federally subsidized affordable housing for the lowest-income households, thus ensuring that affordable housing is not permanently lost after a disaster. Finally, the bill aims to ensure that CDBG-DR funds are allocated equitably among homeowners, renters, and people experiencing homelessness—an important goal since federal disaster assistance is so often focused mostly on homeowners. By passing the Reforming Disaster Recovery Act of 2019, Congress could take meaningful steps to enhancing resilience in frontline communities across the country and helping them recover when disaster strikes.

Congress should strengthen federal building requirements to reduce flood risks. Publicly funded infrastructure must be built to higher standards to withstand the effects of climate change and to ensure that taxpayer money is being spent wisely; as the adage goes, “an ounce of prevention is worth a pound of cure.” To ensure that federally funded infrastructure is built to last, Congress should reinstate the 2015 Federal Flood Risk Management Standard—a policy focused on ensuring that federally supported projects in flood-prone areas can withstand more frequent and severe flooding.<sup>118</sup> The standard would protect critical infrastructure such as hospitals and fire stations and reduce devastating property losses, lower rebuilding costs, and ensure a more responsible use of taxpayer dollars.

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### Increase funding for disaster mitigation and climate change adaptation strategies

When it comes to preparing for extreme weather, investing in disaster mitigation is a cost-effective approach to enhancing community resilience. According to the National Institute of Building Sciences, every \$1 invested in pre-disaster mitigation saves \$6 in recovery and rebuilding costs.<sup>119</sup> For this reason, Congress should significantly increase investments in established disaster mitigation and climate change adaptation strategies such as FEMA pre-disaster mitigation grants; moreover, it should update flood maps to ensure that they reflect up-to-date climate projections. If Congress invests in these programs, the potential risk of infrastructure damage



as a result of climate change would likely decline, while safety and resilience would increase. Given the rising severity and frequency of extreme weather events, and the increasing cost of disaster recovery from coast to coast, disaster mitigation and climate change adaptation strategies are crucial for not only saving money but also, and more importantly, for saving lives. The nation will always be vulnerable to the risks of extreme weather. Therefore, Congress should take the following steps to fund disaster mitigation and climate change adaptation strategies.

#### Congress should track the implementation of the Disaster Recovery Reform Act of 2018

In October 2018, after recognizing that federal disaster assistance programs were in dire need of reform, Congress passed and the president signed into law the Disaster Recovery Reform Act (DRRA).<sup>120</sup> The legislation amends several sections of the Robert T. Stafford Disaster Relief and Emergency Assistance Act to improve FEMA transparency and accountability, enhance pre-disaster planning and mitigation, and strengthen disaster response and recovery efforts. For example, the DRRA authorized the National Public Infrastructure Pre-Disaster Hazard Mitigation Grant Program, which funds resilience projects by setting aside up to 6 percent of the estimated aggregate amounts of certain federal grant assistance from the Disaster Relief Fund—the primary source of funding for domestic disaster relief programs in the United States. Given the frequency and intensity of disaster events, this provision alone could allow for billions of dollars in pre-disaster mitigation in a single year, especially since the allocation is no longer dependent on discretionary annual appropriations. However, how these funds will be implemented and managed by FEMA is still unclear.

Given that the DRRA includes more than 50 provisions that require FEMA policy or regulation changes for full implementation, Congress has a critical role in tracking the law's implementation.<sup>121</sup> In order to properly do so, Congress must:

1. Review FEMA's implementation of the DRRA and the effectiveness of DRRA-related regulations and policy guidance
2. Direct the Government Accountability Office to conduct a study detailing how DRRA-related changes to federal assistance affect past and future disaster events

Effective implementation of the DRRA will be key to breaking the cycle of extreme weather and climate disasters: damage, rebuilding, followed by repeated damage.

## Congress should increase funding for FEMA's Risk Mapping, Assessment, and Planning (MAP) program

Through its Risk MAP program, FEMA works with states, communities, and tribal nations to identify flood hazards, assess flood risks, and provide data to guide disaster and urban planning by key stakeholders.<sup>122</sup> However, many regions of the country not historically known for flooding are now facing significant flood risks for which they are ill-equipped. A study from Rice University and Texas A&M University concluded that some 75 percent of flood damage in the Houston area occurred outside of FEMA's 100-year flood plain.<sup>123</sup> FEMA flood maps have traditionally relied on historical data to determine the scope of flood plains—meaning that they do not account for the future climate risks communities are currently facing.<sup>124</sup> The combination of more extreme weather and upstream development can expand rather small flood plains to cover massive areas, even entire neighborhoods. Since updating flood maps is both time-sensitive and costly, Congress must increase funding for FEMA to ensure that flood maps both reflect the best available science and account for future climate risks. Given that nearly 35 percent of FEMA's flood maps are out of date,<sup>125</sup> FEMA's Risk MAP program is in desperate need of additional resources.<sup>126</sup> To address this, Congress should take ambitious actions to enhance community resilience, for example, by reauthorizing the National Flood Insurance Program, which would provide an avenue for legislators to advocate for additional resources to update flood maps to account for future climate risks. Equipped with this new knowledge, local planners and homeowners would be able to better understand flood risks and make more informed decisions, saving money for communities across the country year after year.

# Conclusion

Reducing the devastating impacts of extreme weather events on people experiencing homelessness and those with high housing cost burdens demands immediate action from state, local, and federal policymakers before, during, and after natural disasters. Policymakers must craft effective solutions that cut across policy areas and address region-specific climate change impacts. By investing in programs that reduce and prevent homelessness, increase housing affordability, enhance housing options, and ensure that homes are better built and more resilient, policymakers can help those that are unsheltered and keep people in their homes when extreme weather strikes.

To build equitable and resilient communities, leaders at all levels must tackle legacy issues—dilapidated infrastructure, exposure to deadly pollution, lack of access to transportation, limited economic opportunities, substandard housing, racism, and classism—in both low-income communities and communities of color. As this report highlights, simultaneously addressing climate change impacts and housing issues saves money and lives and improves the health and livelihoods of communities. By adopting the recommendations in this report, policymakers can support economic security, protect communities from the brunt of climate change impacts, and improve the availability, quality, and accessibility of affordable housing in front-line communities.

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The Center for American Progress is an independent, nonpartisan policy institute that is dedicated to improving the lives of all Americans, through bold, progressive ideas, as well as strong leadership and concerted action. Our aim is not just to change the conversation, but to change the country.

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As progressives, we believe America should be a land of boundless opportunity, where people can climb the ladder of economic mobility. We believe we owe it to future generations to protect the planet and promote peace and shared global prosperity.

And we believe an effective government can earn the trust of the American people, champion the common good over narrow self-interest, and harness the strength of our diversity.

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We develop new policy ideas, challenge the media to cover the issues that truly matter, and shape the national debate. With policy teams in major issue areas, American Progress can think creatively at the cross-section of traditional boundaries to develop ideas for policymakers that lead to real change. By employing an extensive communications and outreach effort that we adapt to a rapidly changing media landscape, we move our ideas aggressively in the national policy debate.

