



A Disaster in the Making

Addressing the Vulnerability of Low-Income Communities to Extreme Weather

By Tracey Ross

August 2013

Center for American Progress



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Introduction and summary

On October 29, 2012, Superstorm Sandy hit the northeastern United States and became the deadliest and largest Atlantic hurricane of the year and the second costliest in U.S. history after Hurricane Katrina.¹ Heeding the lessons that emerged from the blundered response to Katrina in New Orleans in 2005, the federal government was quick to react to Sandy with Federal Emergency Management Agency, or FEMA, officials arriving throughout the region and President Barack Obama surveying the damage from the ground.

Despite the quick response, however, many low-income residents of the region continued to face dire circumstances. Many low-income elderly and disabled residents of New York City's public housing complexes were stranded in their apartments for weeks after the storm due to elevator outages. Other residents remained in the high rises, despite having no heat or power, because they had nowhere else to go or no means of getting out of their neighborhood.² In other parts of the region, low-income people were unable to make it to food stamp centers for assistance.³ The estimated cost of the destruction wrought by Sandy was \$65 billion,⁴ with low-income households greatly impacted.⁵

Extreme weather is on the rise, and so-called “storms of the century” are part of the new normal. According to the National Climate Assessment draft, authored by 250 of the nation's top scientists, academics, and business leaders:

*Climate change is already affecting the American people. Certain types of weather events have become more frequent and/or intense, including heat waves, heavy downpours, and, in some regions, floods and droughts.*⁶

According to a recent Center for American Progress column titled “Going to Extremes: The \$188 Billion Price Tag from Climate-Related Extreme Weather” the most damaging extreme weather of 2011 and 2012 took approximately 1,107 lives and caused up to \$188 billion worth of damage.⁷ While many describe storms and other extreme weather as “social equalizers” that do not differentiate based on ethnicity, race, or class, the truth is that these events exacerbate our

underlying economic inequities. In fact, a CAP report titled “Heavy Weather: How Climate Destruction Harms Middle- and Lower-Income Americans” explains that “most of these types of events disproportionately harmed middle- and lower-income Americans. These households have fewer resources to prepare for and recover from such disasters.”⁸

Poverty and extreme weather have collided in many recent weather-related events. Extreme weather—such as last year’s record-breaking temperatures across the country and widespread flooding from Iowa to Mississippi in 2011—exposes the neglect and underinvestment that low-income communities experience year round from substandard housing to fewer economic opportunities, to poor infrastructure, to exposure to hazardous waste. It is not until after the dust settles from a disaster that we begin to discuss how to better serve these vulnerable communities. As the particular weather-related event begins to recede in the headlines, however, the conversation unfortunately often tapers off as well.

Policymakers are beginning to recognize that resilience to extreme weather and climate change helps keep communities safe and is a more cost-effective strategy to addressing these disasters than strategies that solely focus on recovery. The president’s recent Climate Action Plan details efforts to prepare the nation for the impacts of climate change and more frequent extreme weather and presents an opportunity to consider how to best serve low-income communities. As University of San Francisco Professor Alice Kaswan stated in her recent article titled “Seven Principles for Equitable Adaptation:”

*Vulnerable populations will be at much greater risk from climate change unless climate change adaptation policies grapple with the underlying socioeconomic inequities that exacerbate their vulnerability. Decreasing social vulnerability requires adaptation measures that both reduce the underlying sensitivity to harm and enhance impacted communities’ resilience to harm after it has occurred.*⁹

While it is impossible to predict all the ways an extreme weather event can disrupt a community, many of our disaster-resilience and recovery policies do not even account for the ongoing vulnerabilities that low-income households experience. Studies show that low-income people are particularly vulnerable to extreme weather events due to their poor housing quality, poor environmental conditions, and economic instability.¹⁰ In order to address their underlying vulnerability, the following recommendations, which are detailed at the end of this report, can help the federal government strengthen the local response before and after extreme weather events strike.

- Strengthen and increase affordable housing
 - Foster social infrastructure by building relationships between public- and affordable-housing residents and community leaders by supporting disaster-relief plans and providing technical assistance to community-based organizations to increase response capacity.
 - Strengthen the quality of affordable housing by increasing pre-disaster affordable-housing investments and increasing the Low Income Housing Tax Credit, or LIHTC, to disaster areas with a significant loss of such housing.
 - Strengthen the Community Development Block Grants Disaster Recovery, or CDBG-DR, program by ensuring fair distribution of support to low-income communities.

- Address environmental factors
 - Protect households against extreme temperatures by fully funding the Low-Income Home Energy Assistance Program, or LIHEAP, and promoting green space in low-income neighborhoods.
 - Rehabilitate flood-control infrastructure by investing \$1 billion annually to repair crumbling dams and levees and ensure the affordability of flood insurance.
 - Develop fair plans for post-disaster debris removal.

- Enhance economic stability
 - Protect the Supplemental Nutrition Assistance Program, or SNAP, to ensure the availability of Disaster SNAP, or D-SNAP, food assistance.
 - Increase unemployment insurance and disaster unemployment assistance and extend the benefit periods.

Let's take a closer look at how poverty exacerbates the consequences of extreme weather events.

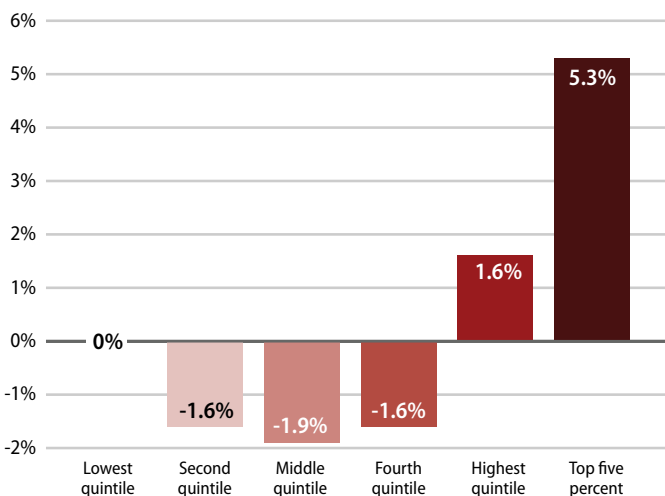
Underlying effects of poverty

By 2011, 46.2 million Americans—nearly one in six people—were living in poverty. Today, millions of households are affected as people cycle in and out of poverty. Longitudinal data from a recent CAP report titled “The Right Choices to Cut Poverty and Restore Shared Prosperity” shows that over a four-year period, one in three Americans will experience a spell of poverty.¹¹ Poverty rates are even higher among different demographic groups. In 2011 more than one-quarter of young children—25.1 percent—were living in poverty, including more than 40 percent of young African American children and more than one-third of young Hispanic children.¹²

This rise in poverty can be attributed in large part to the proliferation of low-wage jobs that do not pay enough to support a family,¹³ as well as a rise in the combined cost of housing and transportation.¹⁴ Furthermore, those living in poverty are more likely to live in neighborhoods with poor housing quality and failing infrastructure, to have poor health outcomes, to lack homeowner or renter insurance, and to face food and housing insecurity.¹⁵ When families lack economic security, an unforeseen crisis that causes financial hardship can jeopardize the ability of parents to pay the bills, put food on the table, and afford necessities such as child care or medical expenses.¹⁶ When that crisis is a natural disaster, families on the brink can be driven deeper into poverty as everything they worked for is lost, and their hopes of entering the middle

Rising inequality

Top 20 percent sees income gains in 2011 while incomes fall or stagnate for low- and middle-income families



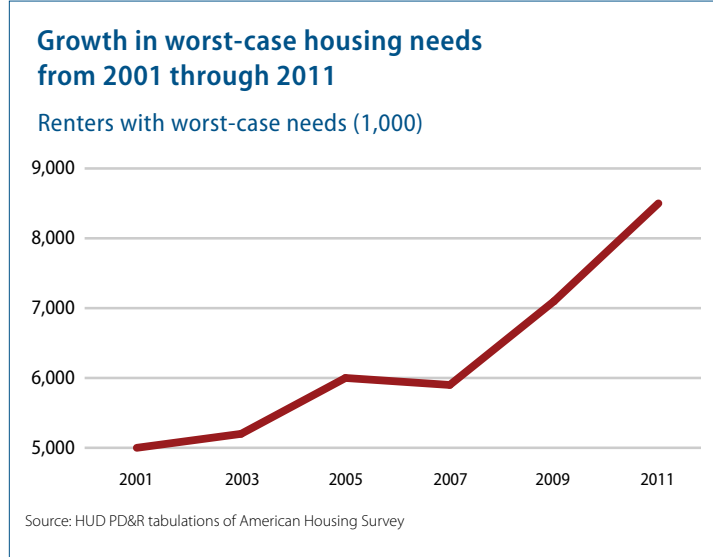
Source: U.S. Census Bureau “Income, Poverty, and Health Insurance Coverage in the United States: 2011” <http://www.census.gov/prod/2012pubs/p60-243.pdf>.

class are delayed or vanish. According to a CAP report, low-income people are more likely to get hit by extreme weather, as the majority of counties slammed with multiple extreme weather events over the past few years were home to middle- and lower-income households.¹⁷ With extreme weather events on the rise, low-income families are at a greater risk than ever before. Disaster aid, while essential, cannot eradicate the damages that severe weather delivers to the lives and livelihoods of low-income Americans.

The impact of poor-quality housing

One of the primary reasons that low-income people are disproportionately affected by extreme weather is due to the quality of their housing. Shoddy construction and the age of affordable housing—generally in less-than-desirable neighborhoods that lack quality services and are supported by suboptimal infrastructure—puts low-income people at greater risk from the effects of extreme weather.¹⁸ Despite this reality, we cannot simply move millions of people to new and better buildings and neighborhoods. There is currently a shortage of more than 5 million affordable-housing units for low-income families across the country. Furthermore, only one in four families that qualify for federal housing assistance currently receives it,¹⁹ and nearly two-thirds of extremely low-income renters spend 50 percent or more of their incomes on housing.²⁰ Matters will only get worse as federal housing-assistance funding is expected to decline in the years ahead.²¹ As a result, many low-income families rely on substandard housing, including approximately 7 million low- and moderate-income families who live in manufactured homes or mobile homes.²² This is of particular concern as people living in mobile homes account for half of all tornado deaths.²³ These worst-case housing needs have steadily been on the rise over the past decade.²⁴

Immediately after Superstorm Sandy hit, it was reported that even after much of New York City returned to normal, many of the city’s low-income elderly and disabled residents were found stranded in New York’s public housing towers due to power failures that caused elevator outages. As a result, the city relied on ad-hoc teams of volunteers to care for the trapped residents. But there were no plans in place on how to



work with outside organizations or volunteers; there were no standby contracts to secure pumps and generators for the public housing buildings; there was no up-to-date assessment of electrical-system needs to even identify what type of generator a building could use.²⁵ The age and quality of the housing stock hindered the response to the disaster.

According to the Furman Center for Real Estate and Urban Policy, 55 percent of the storm-surge victims in New York City were very-low-income renters, whose incomes averaged \$18,000 per year. Max Weselcouch, the center's data manager, explained that "these households were vulnerable before the storm, and programs to assist them will need to take their need for affordable housing into account in order for them to fully recover from the storm's damage." Before the storm, only 22 percent of rental units in New York City were affordable to households making less than \$30,000.²⁶

The second disaster: Long-term recovery

Housing continues to be a significant issue for people of color and low-income disaster victims in the recovery period, which some researchers have termed the "second disaster."²⁷ Analyses show that housing assistance after extreme weather events often favors middle-class victims, particularly homeowners.²⁸ Even when low-income people own their own homes, there are often discrepancies in the aid they receive. After Hurricane Katrina, the state of Louisiana used millions of dollars from the U.S. Department of Housing and Urban Development's Community Development Block Grant Disaster Recovery program to assist homeowners, but African American homeowners received an average of \$8,000 less than white homeowners. The discrepancy was a result of basing award amounts on housing values rather than the cost of repairs. For African Americans in New Orleans' Lower Ninth Ward, the gap between the damage accrued and the grants awarded based on property value was \$75,000.²⁹

While helping homeowners is important—particularly for low-income homeowners who might have inherited their home or have all of their assets tied up in the property—homeownership rates among low-income people are around 44 percent nationally, nearly half the rate of high-income households, making it imperative to include renters prominently in funding decisions.³⁰ Furthermore, higher-income evacuees often secure the surplus housing available in a community, making recovery even more challenging for low-income renters.³¹ Given the

extremely low incomes of the renters claiming damages in New York City in the wake of Sandy, these households are particularly at-risk of not finding affordable housing. According to reports, thousands of people displaced by Sandy had to take shelter in hotels because they did not have sufficient income to qualify for the available apartments or existing disaster programs.³²

Keeping housing affordable after it is upgraded from damages during disasters also presents its challenges. Research has shown that when older, low-cost housing is brought up to minimal safety standards, it often becomes unaffordable, thus creating a situation whereby low-income families cannot find safe and affordable housing.³³ In addition, the destruction of affordable housing drives up the cost of remaining units. After Katrina, more than 40,000 affordable rental units, out of a total of 86,000 such units, experienced severe or major damage. This created a situation where costs soared for those units that were available. The fair-market rent for a two-bedroom apartment rose 45 percent in two years. Furthermore, much of the housing that was damaged will not return due to the sheer cost of repairing or replacing them and because of new development plans. In New Orleans, 5,000 units of public housing were demolished in favor of developing mixed-income housing that included only 800 public housing units.³⁴ While mixed-income neighborhoods are better than concentrated poverty, the plan simply failed to acknowledge housing needs.

Housing resiliency: Enterprise Community Partners

It is imperative that public housing authorities and owners of affordable-housing properties ensure that low-income residents are better prepared for extreme weather and the recovery period. An example of such an effort is being spurred by Enterprise Community Partners, a nonprofit organization that works to create opportunities for low- and moderate-income people through affordable housing in diverse, thriving communities. Enterprise Community Partners recently launched an ambitious multiyear effort to ensure that affordable-housing providers are more resilient and better prepared to aid their residents through extreme weather events. The initiative includes:

- **Conducting a learning collaborative program for multifamily affordable-housing resilience**

Over the next two years, Enterprise Community Partners will be supporting a cohort of 12 affordable-housing organizations in New York and New Jersey, serving approximately 13,600 low- and moderate-income households, in order to strengthen their disaster-preparedness skills, improve the physical resilience of their properties, and work collaboratively to identify best practices for resilience in the multifamily affordable-housing field to share with homeowners in the region and beyond.

- **Improving the physical resilience of affordable-housing portfolios**

Enterprise Community Partners is helping affordable-housing organizations that are participating in the learning-collaborative program to retrofit their affordable multifamily buildings through a specialized Resilience Capital Needs Assessment that evaluates the physical vulnerability of properties and outlines strategies to improve resilience.

- **Providing training for the field on disaster readiness and response**

Enterprise Community Partners is hosting a series of workshops and panel presentations that explore long-term recovery challenges and opportunities for the New York region's multifamily affordable-housing infrastructure in the aftermath of Super-storm Sandy.

- **Developing civic and housing capacity in highly vulnerable low-income neighborhoods**

In key vulnerable New York neighborhoods, such as the Rockaways and Coney Island, Enterprise Community Partners is exploring how it can help strengthen the infrastructure of community development and other organizations that can help vulnerable residents bounce back after crises.

Source: Enterprise Community Partners, "Hurricane Sandy Recovery and Rebuilding: Strengthening Affordable Housing and Neighborhoods for the Most Vulnerable Residents" (2013).

Environmental factors

While the strength and quality of housing is critical in the face of extreme weather, the location of housing is just as important, if not more so. There are a number of environmental factors that can exacerbate the problems low-income communities and communities of color face when dealing with extreme weather, including heat islands, low-lying ground, potential oil spills, and debris removal.

Heat islands

Extreme heat is one of the leading weather-related killers in the United States, resulting in hundreds of fatalities every year.³⁵ The intense heat waves in 2011 and 2012 took more than 181 lives and set temperature records across the nation.³⁶ The United States experienced the warmest 12-month period in history from September 2011 to August 2012, and more than 28,000 daily high-temperature records were matched or broken as of September 12, 2012.³⁷ This year the nation's capital had 138 consecutive hours with temperatures exceeding 80 degrees, breaking the 1871 record of 128 straight hours.³⁸

These temperature increases can exacerbate what is known as the “heat-island” effect, where densely built-up areas tend to be hotter than nearby rural areas. To illustrate the point, the annual average air temperature of a city with 1 million people or more can be 1.8 degrees to 5.4 degrees warmer than its surroundings.³⁹ By night the temperature difference can be as high as 22 degrees.⁴⁰ Researchers from the University of California at Berkeley studied 304 metropolitan areas in the United States where more than 81 million people live and found that African Americans are 52 percent more likely than whites to live in such densely packed neighborhoods; Asians are 32 percent more likely to live in such areas, and Hispanics are 21 percent more likely.⁴¹

Having a working air-conditioner reduces the risk of death from extreme heat by 80 percent.⁴² One in five low-income households do not have air conditioners, and many cannot afford the electricity to run them, making lower-income people more vulnerable to extreme heat.⁴³

Floodplains and storm surges

Because flooding is one of the most expensive and most common extreme weather events, a single flood can push a low-income family below the poverty line.⁴⁴

The Mississippi River and Missouri River floods in the spring and summer of 2011 caused billions of dollars of damage, particularly to lower-income homeowners near the rivers. According to a CAP report, the typical household in areas that suffered from these floods earned on average \$44,547 per year—a staggering 14 percent below the U.S. median income.⁴⁵ Furthermore, 9 of the 11 counties adjacent to the Mississippi River in Mississippi have poverty rates at least twice the national average.⁴⁶ *The Washington Post* reported that “river flooding is making being poor in Mississippi even harder.”⁴⁷

Because standard homeowner- and renter-insurance policies do not cover flood damage, property owners in flood-prone areas are required to purchase additional insurance through their insurance provider or from the federal government’s National Flood Insurance Program. In July 2012 President Barack Obama signed the Biggert-Waters Flood Insurance Reform Act of 2012, which reauthorized the National Flood Insurance Program and discouraged new development in floodplains by removing subsidized insurance rates for secondary residences and businesses. These changes, along with new floodplain maps, will increase insurance premiums 20 percent to 25 percent, translating to thousands of dollars per policy. The program, however, fails to address the issue of affordability of flood insurance for the primary homes of middle- and lower-income families, which would help protect their assets and help communities recover quicker through more relief.

Debris removal

Extreme weather events such as tornadoes and hurricanes require a rapid and large-scale clean up. After Hurricane Katrina, for example, 22 million tons of debris was removed and disposed of in Louisiana alone. Because of the urgency and the large undertaking, many unlined landfills that were originally closed because contaminants were leaking into groundwater were reopened and put into service.⁴⁸ Furthermore, federal time limits on payment to remove hurricane debris pressured officials to reopen these dumping grounds. One study estimated that 1,740 metric tons of arsenic was contained in the 12 million cubic meters of demolition wood debris that was dumped in such landfills in the wake of Katrina in Louisiana alone, posing risks of contamination to groundwater.⁴⁹

Mississippi's storm debris was estimated at 46 million cubic yards after Katrina—more than one and a half times as much debris as the state creates in an average year.⁵⁰ One-third of the debris was estimated to be vegetative, which disaster-response officials prefer to burn, yet air testing showed the presence of arsenic and lead.⁵¹ Such concerns have been seen in other disasters as well. After Hurricane Andrew in 1992, for example, the use of open-air incineration of debris caused many complaints about air quality.⁵²

A report from the Joint Center for Political and Economic Studies explained:

Catastrophic damage inevitably leads to dramatic increases in demand for solid waste disposal, and chaotic conditions frequently limit opportunities to effectively sort hazardous from non-hazardous debris. Under these conditions, the likelihood remains high that minority and low-income neighborhoods will be burdened disproportionately with water and air pollution from debris removal and burning, given the historic pattern of siting landfills in those areas.⁵³

Infrastructure resilience

The promise of increased extreme weather poses a great threat to our nation's aging transportation infrastructure. This will be particularly harmful for low-income people due to the fact that they are more dependent on public transportation year round and need access to transportation during evacuations. Moreover, as discussed earlier, power outages in public housing can cause problems—such as trapping disabled and elderly residents in high rises—leaving them to manage the best they can in their apartments.

In a recent CAP report, “Shelter from the Superstorm,” we recommend that President Obama establish a national infrastructure-resilience plan and investment strategy to more effectively leverage public and private capital to modernize and strengthen our nation's infrastructure. This includes ensuring that infrastructure grant programs within the Department of Transportation, Housing and Urban Development, the Army Corps of Engineers, and other agencies only support project designs that are disaster and climate resilient.

The report also suggests that local officials and electric utilities should work together to increase electricity-grid resilience by put-

ting vulnerable power lines underground where possible, creating incentives for consumers to install smart meters, and distributing and decentralizing clean power around the grid so that communities are less vulnerable to massive outages.

To improve resiliency to power outages in Hoboken, New Jersey, city leaders there are partnering with the Department of Energy, the New Jersey Board of Public Utilities, and the Public Service Enterprise Group, or PSEG, to design a more resilient electricity grid to help keep the power on during and after storms. The partnership will explore options for using advanced, smart-grid technologies and distributed and renewable energy to improve grid reliability and resiliency.

The report recommends that state and local governments across the nation develop sound hazard-mitigation and climate-change resilience plans, update building codes, and take other actions to reduce the consequences of future storms and climate change. Additional proposals can be found in CAP's report titled “Infrastructure and Resilience: Forging a National Strategy for Reconstruction and Growth.”

Sources: Cathleen Kelly and Jackie Weidman, “Shelter from the Superstorm: How Climate Preparedness and Resilience Saves Money and Lives” (Washington: Center for American Progress, 2013), available at <http://www.americanprogress.org/wp-content/uploads/2013/07/KellySuperstorm-report.pdf>; Bracken Hendricks, “Infrastructure and Resilience: Forging a National Strategy for Reconstruction and Growth” (Washington: Center for American Progress, 2013), available at <http://www.americanprogress.org/wp-content/uploads/2013/04/InfrastructureResilience.pdf>.

Economic stability

Extreme weather often disrupts local economies by preventing people from getting to work and even by destroying small businesses altogether. This is particularly challenging for low-wage workers who depend on each paycheck and have little to no savings to fall back on. Two programs in particular—the Disaster Supplemental Nutrition Assistance Program, or D-SNAP, and the Disaster Unemployment Assistance program—are designed to help people during such times of disaster. Both programs, however, present a number of challenges during implementation.

Food access

Following a disaster, one of the immediate concerns of families is food security. While many charities work to help in the immediate aftermath of disaster, food-assistance programs work to help stabilize households. In the wake of federally declared disasters, states can apply for D-SNAP, which provides replacement benefits for regular food stamp recipients who lose food in a disaster and extends benefits to low-income households that would not ordinarily be eligible for food assistance. Following Superstorm Sandy, Govs. Chris Christie (R-NJ) and Andrew Cuomo (D-NY) announced the availability of D-SNAP benefits to low-income households in the hardest-hit areas.⁵⁴

A number of challenges arose, however, that prevented people from accessing or using the benefits. Some food stamp recipients initially had trouble using benefits because their electronic benefit cards, which work like credit cards, were rendered useless in stores that lacked electricity and only accepted cash.⁵⁵ In New York City there were only two centers set up to accommodate D-SNAP applicants with the federally required face-to-face interviews—one in downtown Brooklyn, the other a part-time center in Staten Island—despite the fact that relief centers existed in other qualifying parts of the city.⁵⁶ As a result, hundreds of people showed up at a food stamp center in Coney Island only to find that it was closed because of the storm.⁵⁷ Computer records revealed that many eligible residents did not take

advantage of the D-SNAP program, most likely because they could not reach markets that accepted the benefits.⁵⁸ This was partly because eligible residents were evacuated to hotels in areas where food stamps are not widely used, causing some charities to try and fill the void.⁵⁹

In a *New York Times* op-ed, Christine Quinn, speaker of the New York City council, and Annabel Palma, chair of the council's general welfare committee, scrutinized the short window of time people had to apply for the D-SNAP program. "After the weeklong sign-up period, we saw that the program was woefully underused, as New Yorkers found it difficult to register. What good was this program if people couldn't get to the sites to apply?" asked Quinn and Palma in their op-ed.⁶⁰

Unfortunately, a larger threat looms to the program as D-SNAP is funded through the traditional SNAP program: House Republicans have been targeting SNAP for billions of dollars in cuts. This would endanger funding for this vital program and increase the likelihood of food insecurity among middle- and lower-income families after a natural disaster.⁶¹ In fact, the House recently passed a version of the farm bill that stripped SNAP from the legislation altogether.⁶²

Unemployment assistance

Another critical concern for families living in poverty or on the brink of poverty is potential job loss. Immediately following Superstorm Sandy, job reports revealed that New York state lost 29,100 private jobs, and New Jersey lost 8,100.⁶³ Those most affected were the people who traditionally have trouble finding jobs: older workers, single parents with child care concerns, and immigrants who speak little English.⁶⁴ Both New Jersey and New York actually experienced lower unemployment levels than before the storm—but no different than 2011 levels—in part because areas hit by hurricanes almost always see a temporary boost in employment because of rebuilding activities.⁶⁵

Overall, federal labor laws include more protections for salaried workers than for hourly workers when a disaster hits. "Non-salaried workers are really at the mercy of their employers," said Ross Eisenbrey, vice president of the Economic Policy Institute. "If the business closes because of the storm, employers don't have to pay non-salaried workers for lost wages. And if the business is open, but the worker can't make it into work, employers are also not required to pay for lost wages. And in most cases, they won't."⁶⁶ Of course, policies vary from workplace to workplace, and some hourly workers are more fortunate than others.⁶⁷

Individuals who lose their jobs due to extreme weather qualify for unemployment benefits through either the Unemployment Insurance Program or the Disaster Unemployment Assistance, or DUA, program, which is available to workers who do not qualify for regular unemployment insurance benefits. The maximum weekly benefit amount is determined under the provisions of the state law for unemployment compensation in the state where the disaster occurred. Still, the minimum weekly amount is half of the average benefit amount in the state.⁶⁸

After Hurricane Katrina, individuals from Alabama, Louisiana, and Mississippi relied on such benefits, but the levels of assistance provided under each state's program were far too low. The three states had the lowest average weekly unemployment insurance benefit levels in the nation—equal to roughly half the poverty level for a family of four. This translated to DUA benefits of \$100 a week—or about \$5,000 a year. The benefit levels were especially inadequate because of the exceptionally difficult economic circumstances faced by Katrina victims, many of whom lost virtually everything they had once owned. Furthermore, many of the people evacuated to states where the cost of living was higher than where they were displaced.⁶⁹

Undocumented immigrants

Immigration status is another critical issue in disaster recovery. Undocumented immigrant families are eligible for short-term, noncash disaster aid such as food, shelter, and clothing—though they are not eligible for cash assistance, such as Federal Emergency Management Agency's, or FEMA, Assistance to Individuals and Households Program. Immigrant families with a child who is a U.S. citizen may apply for FEMA assistance on the child's behalf. FEMA officials can also refer individuals and families to other programs that may provide disaster assistance regardless of immigration status.

But many undocumented immigrants and mixed-status families are unaware that they are eligible for this recovery assistance. And many others fear that requesting such assistance may cause them to be referred to immigration officials for deportation. After Hurricane Sandy, FEMA signs posted throughout Staten Island advised residents in English and Spanish to bring their Social Security numbers to receive help, leading many undocumented Latino immigrants to believe that

they did not qualify for emergency assistance or that they could be subject to immigration enforcement if they applied. There were also reports that FEMA officials turned some immigrants away because of their legal status—similar to reports during previous disaster recoveries such as Hurricane Katrina.

Post-disaster recovery efforts are about public safety and humanitarian aid and should not be subverted by the specter of immigration enforcement. This means that we need a well-defined protocol for engaging immigrant communities during these recovery efforts. That protocol must contain a clear statement from Department of Homeland Security officials that no one applying for disaster assistance will be referred for immigration enforcement as a result of their application. Furthermore, the eligibility requirements for undocumented immigrants and mixed-status families must be clearly delineated and part of FEMA training.

Sources: Jorge Rivas, "Undocumented Can Apply for FEMA Sandy Relief Through Citizen Kids," *Colorlines*, November 19, 2012; Bryan Llenas, "Hurricane Sandy's Forgotten Victims - Undocumented Immigrants," *Fox News Latino*, November 20, 2012.

Improve resiliency and recovery in low-income communities

There are a number of steps the federal government can take to ensure that state and local leaders are better positioned to help low-income communities withstand and recover from extreme weather events. Below are several recommendations that deserve serious consideration.

Strengthen and expand affordable housing

Foster social infrastructure around public and affordable housing

Three days after Superstorm Sandy, New York City enlisted nonprofit groups to conduct a formal canvass of public housing high-rise buildings in the flood zone to determine who remained in those buildings, yet there was no standing agreement or protocol for how to conduct the canvass. The Department of Housing and Urban Development, or HUD, should provide funding and technical assistance to public housing authorities and community-based organizations to work together to ensure the safety of public housing residents. HUD should outline the specific responsibilities for public housing agencies after disasters, including assessing vulnerabilities of the property, developing evacuation plans, outlining roles and responsibilities between public housing agency staff and community partners, noting where elderly and disabled residents live, and updating these lists as people move in and out. Rep. Nydia Velazquez (D-NY) introduced similar legislation, the Safely Sheltering Disaster Victims Act of 2013, to ensure that public housing authorities are better prepared to help residents through extreme weather events.⁷⁰

In addition, HUD can provide technical assistance and resources to develop these protocols and agreements with community-based organizations, or CBOs, and housing intermediaries that can provide additional capacity leading up to, during, and following extreme weather events. (see Enterprise Community Partners text box above) CBOs can apply to work with public housing agencies and receive additional support for helping nonprofit affordable-housing providers with their disaster plans as well. HUD can support this effort by prioritizing such resilience activities through regular Community Development Block Grants, or CDBG, allocations.

The poor quality of low-income housing presents disaster service providers with demands that go beyond the provisions of routine shelter and housing programs.⁷¹ After Superstorm Sandy hit, New York City relied on ad-hoc teams of volunteers to care for the low-income elderly and disabled residents trapped in public housing towers. Community-based organizations and volunteer groups were able to fill unmet needs such as providing shelter, food, and transportation that even larger charity groups fell short on in the immediate response. Volunteers from Occupy Sandy, a relief effort made of former Occupy Wall Street protesters, rallied teams to go door-to-door in housing projects to help aid-neglected residents and provide flashlights, food, medical attention, and even help evacuating.⁷²

Such responses take place during many types of disasters. In Chicago's heat wave of 1995, 739 people died in mostly low-income African American neighborhoods.⁷³ One Chicago neighborhood, called Auburn Gresham, with the same racial and income demographics fared better than even the more affluent neighborhoods in the city during the heat wave. It turns out that residents of Auburn Gresham participated in block clubs and church groups, in addition to socializing at grocery stores and diners. In short, the neighborhood banded together; during the heat wave, the block clubs checked in on elderly and sick neighbors to ensure their safety.⁷⁴

A recent poll conducted by the Associated Press-NORC Center for Public Affairs Research confirmed that neighborhoods that lacked social cohesion and trust generally had a more difficult time recovering following a disaster or extreme event.⁷⁵ A robust social infrastructure plays a significant role in our everyday lives, serves as the first line of defense during disasters, and can mean the difference between survival and tragedy.⁷⁶ It is necessary to ensure that such an infrastructure is built around the housing of communities that need this support most.

Ensure fair distribution of Community Development Block Grant Disaster Recovery funds to low-income communities

Housing assistance after natural disasters has historically favored middle-class victims, particularly homeowners, and recovery plans often do not take into account affordable-housing needs.⁷⁷ After Hurricane Katrina, there was a huge discrepancy in how recovery assistance was allocated from Community Development Block Grant Disaster Recovery, or CDBG-DR, funds. While more homes than rental units in both Louisiana and Mississippi were damaged, the proportional damage to the rental stock was even greater. Despite this, the Government Accountability Office, or GAO, reported that \$13 billion in assistance went toward the repair and replacement of homeowner units and roughly \$1.8 billion went toward rental units. The report noted, “When the estimated number of assisted units is compared to the estimated number of damaged units, 62 percent of damaged homeowner units and 18 percent of damaged rental units were assisted.”⁷⁸

The difference comes down to states’ decisions about how to spend the flexible funding from HUD’s CDBG-DR program.⁷⁹ Typically, 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income people, but that number drops to 50 percent during disasters.⁸⁰ While creating this flexibility is understandable—and states are able to exceed the 50 percent minimum—reducing risk for low- to moderate-income communities should remain the guiding directive of this program.

Further, HUD should direct home-recovery programs using these funds to follow a formula based on cost of repair rather than on the value of homes to ensure that low-income people with less valuable properties are not short-changed. To ensure that these objectives are being met, states need clear guidance on how to develop a recovery program that adequately addresses the needs of low-income populations. While HUD monitors CDBG-DR plans as they are implemented, it is necessary that they help guide state and local governments in the development of plans with these communities in mind.

Increase funding to meet pre- and post-disaster affordable-housing shortages

Research shows that when older, low-cost housing is brought up to safety standards, it often becomes unaffordable to the families that need it most.⁸¹ Despite this reality, the disaster-relief legislation that was passed in response to Superstorm Sandy did not include increased support for the Low Income Housing Tax Credit, or LIHTC, as proposed by Sens. Charles Schumer (D-NY) and Robert Melendez (D-NJ). The LIHTC program is a subsidy used to finance the development of affordable rental housing for low-income individuals and families.⁸² According to the Bipartisan Policy Center, “It is not economically feasible to develop affordable housing at restricted rents, so a subsidy is needed to make up the difference between what a property costs to develop and the income that can be generated to support such development costs.”⁸³

Since its creation in 1986, LIHTC has leveraged more than \$100 billion in private investment capital through a dollar-for-dollar reduction in a developer’s tax liability, providing critical financing for the development of more than 2.5 million affordable rental homes.⁸⁴ The program annually supports 95,000 jobs and finances approximately 90 percent of all affordable rental housing. Moreover, it is viewed as a critical resource to transform communities suffering from blight.⁸⁵ Private investment in LIHTC fell from a high of about \$9 billion in 2006 and 2007 to about \$5.5 billion in 2008 due to the recession and financial crisis.⁸⁶

Congress should pass legislation that makes increased support for LIHTC available after any presidentially declared disaster in which significant affordable housing has been damaged or lost. Furthermore, LIHTC should be increased overall to address the undersupply of affordable housing, which compromises the safety and well-being of families prior to disasters. In addition, these funds should be designated eligible for resilient infrastructure, including onsite renewable generation and resilient microgrids within affordable-housing developments to serve low-income communities with more resilient, secure, and efficient energy infrastructure.⁸⁷

Congress should also continue to expand funding for the National Housing Trust Fund and Capital Magnet Fund. Created by the Housing and Economic Recovery Act of 2008, these two funds provide finance to states and Community Development Financial Institutions primarily to support affordable rental housing. Before they fell into conservatorship, Fannie Mae and Freddie Mac were intended to finance these two funds.⁸⁸ It is critical that we expand access to quality affordable housing in order to ensure that people can live stable lives, no matter what unforeseen crisis lurks around the corner.

Address environmental factors

Protect households against extreme temperatures

A 2009 report from the University of Southern California found that “households in the lowest income bracket use more than twice the proportion of their total income on [energy costs] than households in the highest income bracket.”⁸⁹ While some low-income families receive help paying their heating and cooling bills from the Low Income Home Energy Assistance Program, or LIHEAP, Congress cut this program’s funding by 30 percent between 2011 and 2012, resulting in more than 1 million households losing benefits entirely.⁹⁰ This is a serious issue, as exposure to high temperatures, particularly for the elderly and children, can lead to heat stroke, extremely high body temperatures, unconsciousness, and even death. Fully funding LIHEAP would provide these households with the resources to pay for the energy needed to cope with extreme weather events.

In addition, there are several low-tech steps to make low-income communities cooler, such as planting trees and other vegetation, as well as using light-colored roofing and pavement.⁹¹ Such steps should be encouraged where federal funding is leveraging local-community development and hazard-mitigation efforts. Combatting the urban “heat island” effect and expanding assistance on energy bills will help low-income communities survive extreme heat.

Protect households against floods

Climate change will bring heavier precipitation in the Northeast and upper Midwest, increasing the likelihood of floods and putting low-income families at risk.⁹² A CAP report titled “Ensuring Public Safety by Investing in Our Nation’s Critical Dams and Levees” documented the crumbling of our flood-control infrastructure, which was to blame for the devastation in New Orleans in 2005.⁹³ The report warned:

If we do not make changes soon to the way we monitor and maintain our nation's dams and levees, catastrophes ... will continue to occur—likely with greater frequency. The combination of extreme weather and flooding resulting from global warming and our aging dam and levee infrastructure means that without action, thousands of lives and communities are at risk and avoidable public costs will rise.⁹⁴

To begin to address this threat, CAP's "Heavy Weather: How Climate Destruction Harms Middle- and Lower-Income Americans" report recommends that Congress must promptly reauthorize the National Dam Safety Program and should also create a similar National Levee Safety Program. According to the report, Congress must invest at least \$1 billion annually to rehabilitate our run-down dam and levee infrastructure.⁹⁵

In addition, as stated earlier, our current flood insurance programs fail to address the issue of affordability for middle- and lower-income households, which would help protect their assets and help communities receive more relief and recover more quickly. In "Heavy Weather: How Climate Destruction Harms Middle- and Lower-Income Americans," we recommend creating a means-tested voucher program to ensure this protection while at the same time signaling the long-term risk of remaining in such locations.⁹⁶

Develop fair plans for post-disaster debris removal

Following a large disaster such as a storm or hurricane, local governments must work quickly to remove debris that can make rebuilding communities complicated or dangerous. Unfortunately, much of this planning is not in place. After Superstorm Sandy, New York City had to quickly turn to the Army Corps of Engineers to lead its cleanup effort, as city sanitation crews created enormous piles of debris on Staten Island and in Queens.⁹⁷ The decision to use the Army Corps was slightly more expensive than selecting a private firm, but it allowed the city to act quickly.⁹⁸

Through its Hazard Mitigation Program, FEMA should work with state and local governments in disaster-prone areas to develop plans for how emergency clean ups will be conducted and how debris should be disposed of, to compile a list of possible contractors, and to work to protect low-income communities from such debris. Planning early can allow for community input far in advance of any disaster to ensure that there is community buy-in.

Increase economic stability

Protect the availability of D-SNAP

D-SNAP is viewed as a critical program after disasters, but it is being threatened. D-SNAP funding comes from appropriations from the regular SNAP program, which has faced ongoing threats by Republican members of Congress. House Republicans most recently stripped food stamp funding from farm bill reauthorization in an attempt to weaken the program's chances of surviving the billions of dollars in cuts that have been proposed.⁹⁹ The president and Congress should oppose budget cuts to SNAP to ensure adequate funding for D-SNAP assistance. Furthermore, the Department of Health and Human Services should urge states to guarantee adequate sign-up periods for the program to ensure that as many qualifying residents of designated D-SNAP areas apply. In addition, the Department of Health and Human Services should make traditional food stamps available after severe, persistent power outage to address electronic benefit cards not working.

Furthermore, according to a recent CAP report titled “Disastrous Spending: Federal Disaster-Relief Expenditures Rise amid More Extreme Weather,” the federal government does not have good accounting of D-SNAP spending. The federal government should provide full accounting of D-SNAP spending so that Congress can anticipate and fund future needs.¹⁰⁰

Strengthen and extend disaster unemployment insurance and assistance

Unemployment Insurance, or UI, and Disaster Unemployment Assistance, or DUA, benefits are the main source of ongoing income for tens of thousands of disaster victims. For many victims, it will be some time before they can return to work, and many others will never see their jobs return. The subsequent job search for these individuals will often be long, either because they will be returning to their hard-hit communities where jobs will be scarce or because they will be residing in new communities where they have fewer contacts and know less about the job market. As a result, Congress should consider not only lengthening the period for which disaster victims can receive UI or DUA benefits, but also increasing the levels of those benefits themselves. Regular UI benefits are paid out of state trust funds, but Congress could pass legislation to fund a temporary increase in the level of UI benefits for victims of extreme weather. In addition, Congress could pass legislation to increase the minimum DUA benefit.¹⁰¹ Lastly, state and local governments should publicize the availability of these benefits to ensure that residents can take full advantage of these programs.

Conclusion

Superstorm Sandy is just the latest in a long line of natural disasters that have tested the resilience of low-income communities and exposed the underlying socioeconomic problems these communities face year round. With President Obama's commitment to cut carbon pollution and prepare our country to be more resilient in the face of climate change, we have a renewed call to consider how low-income communities will be uniquely impacted.

As this report illustrates, we cannot continue to ignore our nation's housing crisis, the environmental justice issues that continue to plague our communities, and the growing economic inequality that inhibits our country's growth. Resiliency in low-income communities is an investment we can and must make. According to the National Institute of Building Sciences, every dollar invested in building resilience and reducing exposure to disaster risks saves \$4 in disaster response and recovery. And yet, taxpayers spent nearly \$6 for disaster recovery for every \$1 spent to increase general community resilience over the past three years.¹⁰²

By addressing the availability and quality of affordable housing, protecting communities against environment factors, and ensuring greater economic security, low-income communities will be better equipped to cope with an unforeseen crisis. It is time that we increase our commitment to greater resiliency and address the particular vulnerabilities that low-income communities face. As extreme weather events become more and more commonplace, these events will exacerbate these vulnerabilities, and the strength of our country as a whole will decline.

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