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The Disproportionate Impacts of Natural Disasters on Latine Communities within the United States

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Executive Summary

As the climate crisis worsens Latine communities in the U.S. face disproportionate risks from billion-dollar climate events, such as wildfires and flooding caused by hurricanes. Combined with existing socioeconomic vulnerabilities, this has led to significant financial, health, and infrastructural consequences for these communities. These risks are exacerbated by factors such as inadequate housing, language barriers, lack of insurance, and disproportionate exposure to climate hazards due to employment in outdoor labor industries. As a result, Latines experience higher rates of economic losses, job disruptions, and severe health impacts from disasters. This disproportionate impact also calls for a need to facilitate capacity building, to both help Latine communities recover from these climate events and better equip them to prepare for these disasters.

Background

As the climate crisis worsens, communities worldwide are undertaking adaptation measures to combat its consequences, which include more frequent and severe natural disasters such as wildfires, hurricanes, blizzards, and flooding. With the planet having breached the 1.5°C goal (of limiting global warming compared to

pre-industrial levels) set by the Paris Agreement for the first time in 2024, not only will climate phenomena continue to be exacerbated but it will be the norm, with the International Panel on Climate Change (IPCC) assessing that it would take centuries to millennia to restore the Earth to even our contemporary climate. (United Nations 2025).

This trend of rising temperatures and impact is not exclusive to the United States. In the last decade (2010-2019), the United States has incurred more than \$800 billion USD in damage costs from 119 separate billion-dollar climate events (Smith 2020).

If adjusted to include all climate disaster events in the last 15 years (2005-2019), this number increases \$1.56 trillion USD from 156 separate billion-dollar climate disaster events (Smith 2020). These rising costs are also associated with an increase in the frequency of billion-dollar climate events in the nation, with 2024 having the second most such events in United States history at 27, trailing only 2023 at 28 (Smith 2024).

What these fiscal costs neither encompass nor reveal are the disproportionate social costs borne by socially vulnerable (or disadvantaged) communities, which can consist of communities

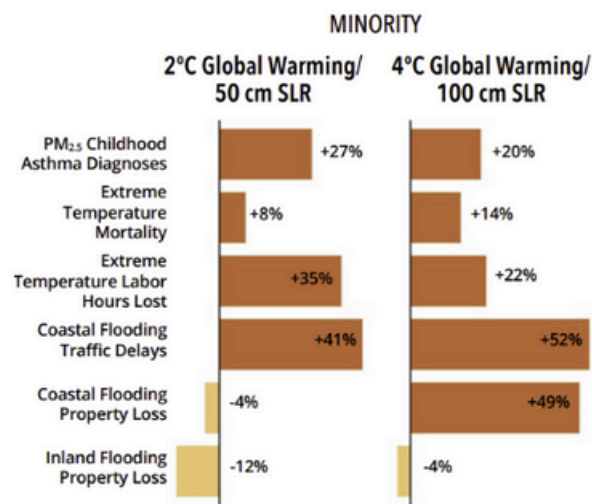


Figure 1: Likelihood that Minority¹ Communities Currently Live in Areas with the Highest Projected Impacts Relative to their Reference Populations (Environmental Protection Agency 2021).

of color, low-income groups, and immigrants, among others (Gamble, J.L., et al. 2016). Disadvantaged communities recover at a significantly slower rate than their non-disadvantaged counterparts, in large part due to a lack of capacity building within these communities. This includes both a lack of practical current infrastructure, such as flood levees and a lack of proper investment from bureaucratic entities that decide where climate mitigation funds are utilized (Tormos-Aponte 2023). The Environmental Protection Agency's (EPA) 2021 report on Climate Change and Social Vulnerability in the United States did a risk assessment for mentioned communities at both likely climate levels (2°C and 50cm of Sea Level Rise) and severe climate levels (4°C and 100cm of Sea Level Rise). Within the United States, minorities also have a higher likelihood to live within areas that will be affected by significant climate events (See Figure 1). This includes areas that are projected to be impacted by air pollution, extreme temperatures, and flooding (Environmental Protection Agency 2021).

The mentioned EPA report highlights that a key finding is that "Hispanic and Latino" communities (referred to as Latine in this report) are disproportionately at risk of multiple climate events and phenomena. This is due to a multitude of factors, which include but are not limited to their professions, language proficiency, immigration status, inadequate housing, and local bureaucratic inefficiencies (Bio 2024). In fact, Latine communities are significantly more likely than "non-Hispanic Whites" to experience heat waves, powerful hurricanes, sea level rise, and floods (Environmental Protection Agency 2021). This disproportionate impact elicits stakeholders to identify why

Latine communities are experiencing these phenomena, especially bureaucrats who are charged with community investment and enacting climate mitigation measures within their respective jurisdictions. Special attention should be paid to climate events that regularly fall within the threshold of "billion-dollar weather and climate disasters" as deemed by the National Oceanic and Atmospheric Administration (NOAA), with wildfires and flooding rising to the top of concerns due to both their frequency and contemporary relevance.

Impact Areas:

Wildfires

Despite only making up 8% of the population within the United States, Latine communities make up 37% of the areas that have been identified to be at the highest risk of wildfires, according to the climate data firm risQ (Colman 2021). This is in part due to the fact that affordable housing within population-dense urban areas is more likely to be found in wildfire-prone areas (Hispanic Access Foundation 2025). This is coupled with limited access to house insurance, with 28% of surveyed Latine businesses and households not having flood, earthquake, or fire insurance, increasing the long-term financial risk posed by wildfires (Pech et al. 2025). Financial risk is also exacerbated by the fact that Latine communities are also more likely to work outdoors in physical labor professions such as agriculture, construction, and landscaping than their white counterparts, which increases the likelihood that their employment will be impacted or disrupted by a climate event. 58% of Latines who report incomes below 200 percent of the federal poverty level (FPL) say their employment was affected by climate events, compared to 19% of their lower-income white

counterparts (KPP 2017). Latine communities are also twice as likely to report that they or one of their family members had their employment hours reduced due to a climate event (KPP 2017).

This higher risk also carries other significant consequences, as the areas and professions that Latine communities encompass also result in Latine communities having a higher likelihood of developing significant health risks that disrupt their ability to work. Diesel particulate matter (PM) resulting from wildfires is twice as likely to impact Latine communities, with a wildfire event averaging 67 asthma-related emergency room visits per 10,000 people for Latine communities, compared to 25 per 10,000 visits for white communities (Pech et al. 2025). This is coupled with Latine communities having the highest uninsured rates within the United States, with 18% of non-elderly Latines lacking health insurance, double the rate of their non-white counterparts, limiting their ability to treat and remedy health effects that result from wildfires (Department of Health and Human Services 2024).

The January 2025 wildfires within Los Angeles County served as a model case study for these trends, though the total impact is still to be quantified with the recency of the climate event. The disaster will all but certainly reach the billion-dollar event threshold from NOAA, with current estimates on fiscal impact reaching as high as \$275 billion USD (Accuweather 2025). While Latine communities have uniquely been less likely to live within the fire evacuation zones than their non-Latine counterparts, they have still been more likely to be disproportionately affected by air pollution. Within Los Angeles County Latine communities experience more than double the rate of diesel particulate matter

pollution (per individual) than their non-Latine counterparts at a .35 average. tons per year, compared to .17 tons per year for white communities (Pech et al. 2025). This is coupled with a comparatively high uninsurance rate among Latine communities in Los Angeles County, with 14% of Latines being uninsured in the county compared to 3% of their white counterparts (Pech et al. 2025). This disparity is showcased in Figures 2A and 2B, where the particulate matter pollution is highest in the areas of the Hurst and Eaton fires, which both have significant Latine populations at 33% and 27% respectively, despite the largest fire by square footage being the Palisades fire, which has a comparatively small Latine population of only 7% (Pech et al. 2025).

Flooding

In 2023 one in four Latines lived in an area that had a federal disaster declaration for flooding according to the Federal Emergency Management Agency, compared to one in ten non-Latine communities that lived in the same counties (Headwaters Economics 2023). In total, 44% of Latine communities live in a county with high flood risk, as compared to 35% for non-Latine communities (Headwaters Economics 2023). This flood risk will continue to be exacerbated with the climate crisis, with Latine communities being 47% more likely to live in a high flood impact area than their non-Latine counterparts in a 4°C and a 100cm level of sea level rise climate scenario, as seen in Figure 3 (Environmental Protection Agency 2021).

Note on Capacity Building:

Though Latine communities are at a higher risk for the mentioned climate impacts and billion-dollar disaster events, there exists a lack of capacity-building to both protect communities and to help them rebuild after a climate event.

Between 1999 and 2013, the average Latine household lost \$29,000 in wealth after a natural disaster, the highest of any demographic during that time period (Hispanic Access Foundation 2025). This disproportionate loss in wealth has been continuously attributed to a lack of support in accessing fiscal resources to mitigate and adapt. Using the case study of Hurricane Harvey in 2017, which affected a large Latine population within the

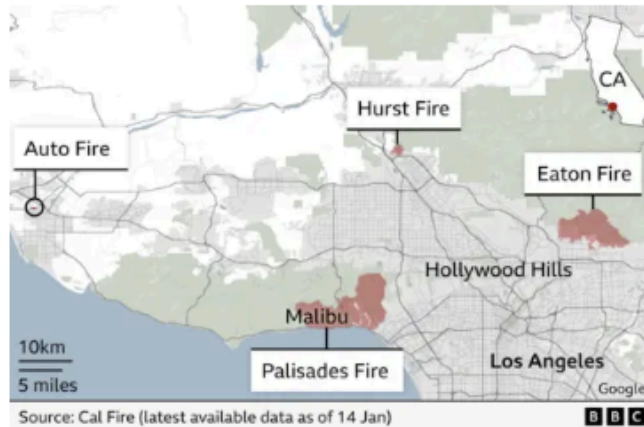


Figure 2A: Map of LA County Wildfires as of January 14th, 2025 (BBC 2025).

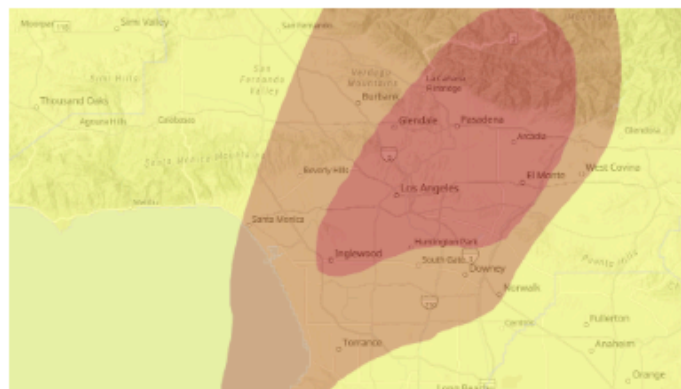


Figure 2B: Map of Particulate Matter 2.5 and 10 Pollution within Los Angeles County, as of January 8th, 2025 (Airnow 2025).

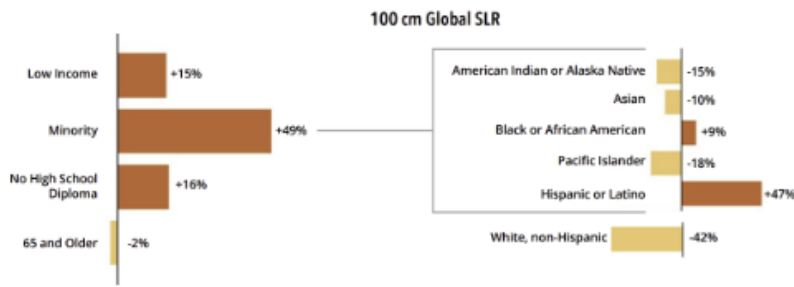


Figure 3: Likelihood to be impacted in a 100 cm Global Sea Level Rise Scenario (Environmental Protection Agency 2021).

city of Houston Texas, Latine communities were more likely to report that they weren't getting the "help they need" from disaster resistance than white communities, while they were also less likely to receive FEMA grants compared to the white counterparts (KPP 2017). Latine communities impacted by Hurricane Harvey reported that there was resistance to taking out loans with the Small Business Administration, citing fears about interest rates, requirements for a credit score, and the need to have an established bank account (KPP 2017). This is all while Latine residents within the affected area report that they do not have savings to fall back on, with Figure 4 showing that 58% do not have any savings, compared to 33% when surveying the same question for white communities.

This inequity encourages conversation on resource mobilization to not only respond to climate events but also better equip Latine communities with the infrastructure to prepare for such disasters. This can begin by addressing cultural barriers to accessing resources, requiring more intensive and deliberate planning from bureaucratic institutions and organizations equipped with resources. An example of this would be translating disaster relief applications into Spanish, and having bilingual workers dedicated to technical assistance on said applications (Bio 2024). In a study conducted by the Red Cross and the Hispanic Access Foundation, downloading of emergency relief applications more than triple when said materials are readily available

in Spanish, showing both the utility and necessity of cultural access (Bio 2024). The long-term solution to equipping climate resilience for Latine communities involves targeting the root causes of vulnerability, which involves both investment in infrastructure that can adapt to changing climate conditions and creating risk-reduction strategies that lessen the potential risk for said communities. This solution would involve measures such as making affordable housing more resilient, increasing technical assistance, targeting grant programs within Latine communities, and proactively investing in physical disaster infrastructure before these climate events materialize (Bio 2024).

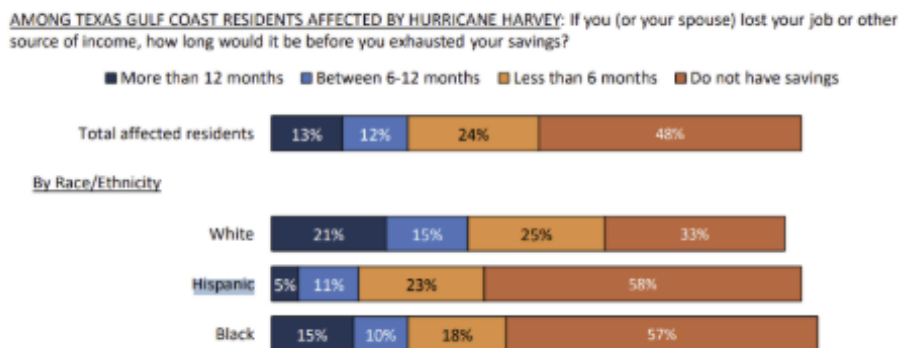


Figure 4: Reported Savings among Residents affected by Hurricane Harvey, by Ethnicity (KPP 2017).

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