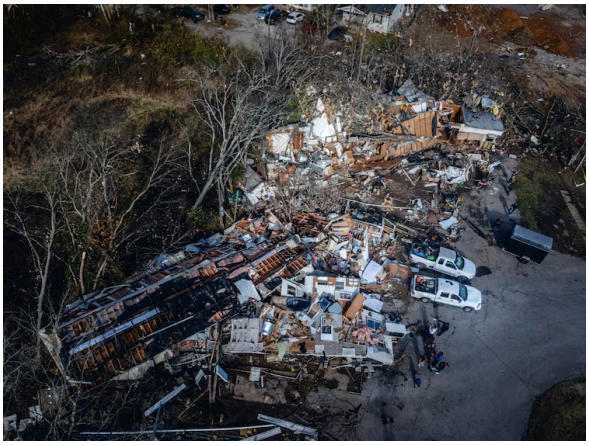
Fairchild Challenge 4

Avantika Goswami

North Allegheny Senior High School

An *ABC News* article, titled *"*The power of us: How climate change has disproportionately impacted vulnerable communities in the US,*"* highlights the disproportionate effects of climate change on vulnerable communities, emphasizing issues such as health disparities, increased natural disasters, and systemic inequalities. According to the article, low-income communities face higher risks from climate change and are more susceptible to environmental hazards due to lack of infrastructure. As extreme weather conditions are exacerbated by warming global temperatures causing increased heat waves, hurricanes, flooding, wildfires, and other severe natural calamities, the need for a well-equipped infrastructure to protect us from them is a must. But vulnerable communities have been in dire straits for decades, due to their lack of resources, unsuitable housing environments, inadequate access to proper facilities and unsafe working conditions. Therefore, these factors have further exposed them to the dark side of nature. In support of the claims made in the article, I do believe that these communities are often overlooked when it comes to the government investing in resources to help immigrants overcome language barriers so they can precisely communicate the environmental challenges they face or to help relocate historically subjugated communities of African Americans living in areas with higher levels of air pollution causing, respiratory illnesses.

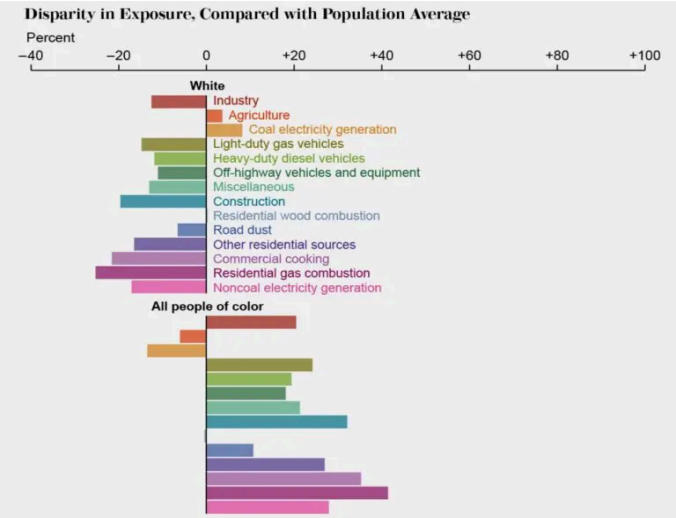
Primarily, there have been many instances around the world that prove the devastating impact of climate change on these slower and recovering communities. Another article authored by expert climatologists, with identical views to the one being discussed, highlights a data from the National Hurricane Center that shows that at least 14 storms had affected a small majority-Black town, Gloster, as a result of consistent flooding, strong winds and heavy rainfalls. However, "Poor property owners can't afford to modify their homes to withstand strong winds, erosion, or flooding, the Fourth National Climate Assessment shows. Instead, the repairs only make them financially tied to houses that are at greater risk of damage" (Alfonseca), says a study by Cambridge University Press. This data indicates that African Americans have been exposed to such drastic climate changes that gravely affect their shelters and belongings, and the overall living conditions, accompanied with greater health disparities. The image below displays the aftermath of a EF-2 tornado outbreak that had taken place in a local Latinx community in Nashville, Tennessee, destroying over 300 residences, including the mobile park where most of

the community resides. Many families were affected by the unforeseen tragedy, and three victims lost their lives. 

Leading activists note that “The geographic location of the so-called Tornado Alley - which historically has meant the Midwest, North Central and South Central U.S., where tornadoes are the most prevalent - is likely shifting due to climate change, with the mid-South now at 25% greater risk than before of tornado threats” (Jacobo). This ghastly environmental downfall illustrates the struggles of such communities with lack of aid to recover from disasters and prepare for the rising climate deposition in the near future. Another news article by UCLA reveals the truth of Latinos working outdoor occupations like construction, delivery, transportation and agriculture, during the 2025 LA Wildfires — causing massive destruction to housing and many residents, that “17% of residents in Latino neighborhoods are employed in these sectors compared to just 6% in white neighborhoods. Wildfire smoke puts these workers at risk of respiratory illness and income loss due to work disruptions. Many outdoor workers may also experience income disruptions as their places of employment are destroyed or closed, and air quality plummets across the county” (Pech). In addition, the article underscores the urgent disparities in health, economic vulnerability and preparedness. When considering health disparities, it is important to note that “Latino neighborhoods experience nearly double the exposure to diesel and PM2.5 pollution compared to white neighborhoods, compounding the health risks of wildfire smoke. Asthma-related emergency room visits average 67 per 10,000 residents in Latino neighborhoods — over 2.5 times higher than in white neighborhoods (25 per 10,000)” (Pech). When thinking about the lack of preparedness, we must consider that “Latino households and small businesses often lack disaster plans or insurance coverage, leaving them financially unprepared. Nearly 30% of surveyed small businesses reported having no insurance for fire or natural disasters, limiting recovery options” (Pech). Regarding access to health care,

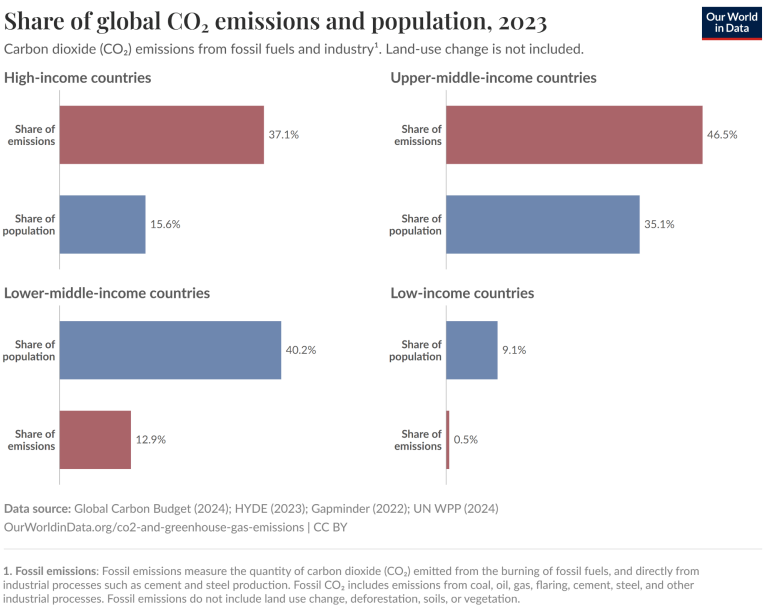
“With 14% of residents in Latino neighborhoods uninsured — compared to 3% in white neighborhoods — access to critical medical care during and after disasters remains a significant barrier” (Pech). These reports show that wildfires, tornados, earthquakes, and plenty other calamities, amplify endless inequities for marginalized communities such as Latinos. Hence, immediate actions should be taken to generate more disaster response and make efforts to recover them.

Additionally, the article accounts for a 2021 Report published by the U.S. Environmental Protection Agency (EPA) found that the “Hispanic people have high participation in weather-exposed industries, such as construction and agriculture, which are especially vulnerable to the effects of extreme temperatures” (Jacobo). People from low income communities who immigrate in the US from other underdeveloped or developing countries, in hopes for stability and better opportunities in life, work almost every other job possible that most common people refuse to partake in, to earn a decent living. But on the downside, some of those jobs that involve daily contact with environmental hazards expose them to harmful substances resulting in severe health problems like heat strokes and dehydration from extreme heat exposures; respiratory problems from exposure to higher levels of ozone; lung cancer and cardiovascular disease from inhaling fine particles part of dust, wildfire smoke or agricultural components. All of these hazards are typical consequences of climate change and increasing environmental catastrophes. In the US, minorities are disproportionately impacted by the polluted climate, both in relative and absolute terms.



The chart recorded in the year 2021, displays the disparities in emissions exposure. It showcases the difference in the risks taken by non-white and white communities, with respect to the various sectors that deal with harmful chemical substances or other environmental hazards. According to some scientists, “Hispanics and African-Americans breathe in 63% and 56% more pollution than they make respectively. On the other hand, Caucasians are exposed to 17% less air pollution than they make. This means that relative to their contribution to pollution, people of colour in the U.S. are disproportionately exposed to pollutants. Across the country, people of colour on average are also exposed to far higher levels of air pollutants (PM2.5), regardless of region or household income” (HK). This large difference between the two groups, significantly emphasizes the unwanted repercussions of climate change that several underprivileged groups have to face on a daily basis and how overlooked they have become. The situation is propelled by the disadvantages of the communities since “People with lower levels of education, lower incomes or manual jobs tend to have less access to high quality food and worse overall health, including higher stress levels, which makes them more sensitive to environmental health hazards. These social groups also tend to be more exposed to environmental hazards, as they live, work and go to school in places with worse environmental quality and more pollution” (European Environmental Agency).

Furthermore, it is important to identify the large asymmetry of the proportion of similarly alarming climate risk factors, CO2 emissions, on a global scale. Fossil emissions measure the quantity of carbon dioxide (CO_2) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. The following chart that was recorded recently in 2024, identifies the share of emissions from coal, gas, oil and other industrial processes in different countries.



As we focus on the impacts of the climate crisis on specific communities within a single country, especially the U.S., it is important to recognize where the country stands as a whole compared to other nations and the issues that similar communities face all over the world, ranging through all economic stages. A data point in the article highlights that “North America is home to only 5% of the world’s population, but it emits 18% of the world’s total CO2. Conversely, Africa is home to 16% of the world’s population, but emits only 4% of total CO2. In other words, different continents hold different amounts of responsibility when it comes to climate change, and some regions should bear more of the blame. Moreover, in terms of aggregate income, 86% of global CO2 emissions are emitted by the richest half of countries in the world, whilst the bottom half only emits 14%. This inequality in global emissions renders the issue of international climate change responsibility very delicate and contentious” (HK). Carbon emissions play a major part in anthropogenic climate change and impacts related to it. Impulsive human activities highly contribute to global warming and perhaps a multitude of environmental risks, which helpless communities later suffer from. In his Project 2025, Trump plans to " hollow out federal agencies and shift power into the hands of political appointees and their industry taskmasters” which will “transform agencies like the EPA into empty shells, incapable of carrying out their regulatory responsibilities. Instead of protecting public health and the environment, these ‘zombie agencies’ would serve private interests disguised as political priorities, further marginalizing populations that are already underserved” (Tejada). As a matter

of fact, the government plays a key role in maintaining a sustainable environment and preserving environmental resources that can benefit all communities and prevent higher risks of climate change from affecting them. However, human negligence towards these issues have only boomeranged, undermining the efforts to help marginalized communities live in a conciliatory environment.

While there have been efforts made in the past to fight climate change and educate people about it, the process is still ongoing. Researchers are investigating intervention strategies to mitigate the health effects of exposure to air pollutants from vehicle emissions, industrial sources, and wildfire smoke. They are developing air quality monitoring tools and resources to support citizen science and community air monitoring initiatives. These efforts involve assessing the accuracy and reliability of commercial, low-cost air sensors, as well as evaluating air filtration devices to reduce the impact of wildfire smoke indoors.

Revisiting the ABC News article, it strongly and accurately analyzes the negative environmental impacts on impoverished communities as it discusses the extreme weather events that disrupt vulnerable communities from the root, as a result of inadequate infrastructure and historic disinvestments. It also credits reviews from environmental experts who explain the burdens of marginalized communities and the downsides of climate change that occur to rise with time. Its acknowledgment of the ramifications of the deadly disasters highlight significant issues of cultural and economic inequality globally and help promote awareness about environmental injustices to the readers.

Works Cited

Agency, European Environment. "Environmental Inequalities." *European Environmental Agency*, 5 Dec. 2024, www.eea.europa.eu/en/topics/in-depth/environmental-inequalities#:~:text=People%20with%20lower%20levels%20of,sensitive%20to%20environmental%20health%20hazards . Accessed 5 Feb. 2025.

Alfonseca, Kiara. "Impoverished communities pay for worsening impacts of climate change." *ABC News*, 6 Nov. 2021, abcnews.go.com/US/impoverished-communities-pay-worsening-impacts-climate-change-experts/story?id=80794967&utm . Accessed 5 Feb. 2025.

HK, Encompass. "How Marginalised Groups Are Disproportionately Affected by Climate Change." *Earth.org*, 9 Nov. 2022, earth.org/marginalised-groups-are-disproportionately-affected-by-climate-change /. Accessed 5 Feb. 2025.

Jacobo, Julia. "The Power of Us: Climate Change Has Disproportionately Impacted These Vulnerable US Communities." *ABC News*, 27 Apr. 2024, abcnews.go.com/US/power-us-climate-change-disproportionately-impacted-vulnerable-us/story?id=109325414 . Accessed 6 Feb. 2025.

Pech, Chhandara. "Wildfires disproportionately impact Latino and other underserved L.A. communities." *UCLA Newsroom*, 13 Jan. 2025, newsroom.ucla.edu/releases/wildfires-disproportionately-impact-latino-and-other-underserved-la-communities-data-shows . Accessed 5 Feb. 2025.

Tejada, Matthew. "Environmental Justice at Risk Under Project 2025." *NRDC*, 20 Nov. 2024, www.nrdc.org/bio/matthew-tejada/environmental-justice-risk-under-project-2025 . Accessed 5 Feb. 2025.