

What the COVID-19 pandemic can teach us about climate injustice

The COVID-19 pandemic has slowed efforts to address climate change and has exacerbated racial disparities in the United States. Black, Indigenous, and people of color (BIPOC) are disproportionately vulnerable to the health crisis due to systemic socioeconomic and environmental disadvantages. There also appears to be substantial overlap between vulnerability to COVID and vulnerability to climate change. Because the most effective pandemic responses and climate actions focus on equity and environmental justice, a truly green recovery must address the racial inequities that persist in all U.S. institutions.

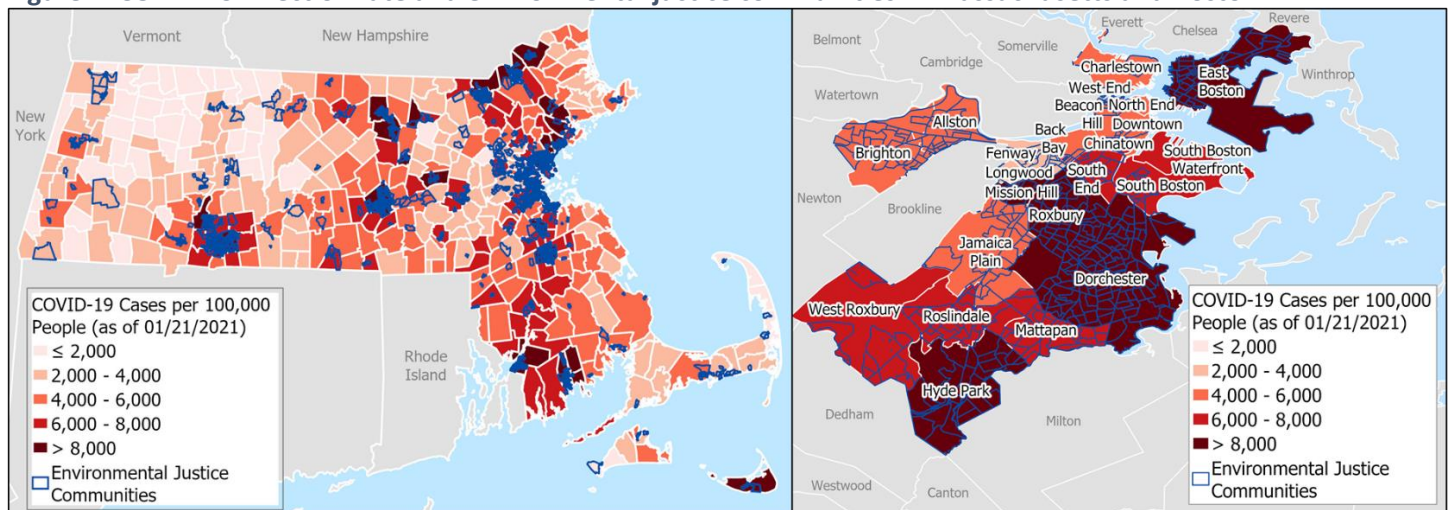
COVID-19 and climate change harm the same communities

Like the global climate crisis, the COVID-19 pandemic has disproportionately impacted BIPOC communities (see Figure 1). Per 100,000 people, both the number of people contracting the illness and the number dying of it are higher for Black, Indigenous, and Latinx populations than for white and Asian populations. These racial disparities are often a byproduct of occupation and geography, as BIPOC are more likely to live in high density urban areas and work in front-line jobs that force them to be at a higher risk for exposure. At the same time, existing socioeconomic inequalities cause BIPOC communities to face the brunt of environmental hazards—disadvantages that are exemplified by disproportionate impacts from climate change.

BIPOC are subjected to unequal distribution of both the benefits of new investments in clean energy and the damages and risks related to climate change, including a much higher exposure to air and water pollution compared to their contribution to their energy use and energy emissions. To fully remedy both the pandemic and the climate crisis, and achieve a sustainable and equitable recovery, cooperation at the national level combined with science-based action is essential.

Issues of justice and equity connect the COVID-19 pandemic and climate change, and through the pandemic there is an opportunity to practice proactivity, cooperation, and a science-based response to climate change.

Figure 1. COVID-19 infection rate and environmental justice communities in Massachusetts and Boston



COVID-19 creates economic stress that can slow climate action

The COVID-19 pandemic not only threatens lives and livelihoods all around the world: It also has important indirect impacts, like disrupting efforts to mitigate and adapt to climate change and exacerbating environmental injustice. Critical needs to fund healthcare workers, supply medical equipment, and alleviate COVID-related economic stresses, can have the unfortunate effect of directing resources away from climate mitigation efforts—leaving new investment in renewables and energy efficient technologies on the back burner. In October 2020, economists at the International Monetary Fund estimated the pandemic’s total cost at \$28 trillion by the end of 2025. These costs stem from business closures and losses in economic productivity due to physical distancing. As of December 2020, the United States has allocated a total of \$12 trillion for COVID-19 response efforts and economic relief. Most of the spending comes from actions taken by the Federal Reserve, followed by fiscal policies enacted by Congress, then administrative spending from various federal agencies. Of this total pandemic budget, \$5 trillion was spent as of December 21, 2020 (see Figure 2).

The economic downturn triggered by the pandemic has the potential to draw resources away from climate change mitigation and adaptation efforts. This could make securing the \$5.7 trillion per year needed worldwide to finance climate change mitigation and adaptation (as estimated by the World Economic Forum) nearly impossible to achieve as the essential cost of pandemic response and recovery raises costs for local and national governments. Delay in implementing climate regulations disproportionately impacts BIPOC communities who suffer the most severe climate change impacts and exacerbates the preexisting racial disparities that permeate the United States today.

The pandemic resulted in overt changes in U.S. federal climate policy early on—the Environmental Protection

Agency (EPA) announced on March 26, 2020 that it would not penalize power plants and factories for failing to comply with routine air and water pollution monitoring and reporting obligations. EPA’s choice to put aside environmental controls has a direct impact on climate justice, increasing BIPOC and other economically vulnerable communities’ exposure to pollutants that cause respiratory diseases. Pollution released from power plants is linked to asthma, diabetes, and cancer—three underlying conditions that place individuals at high risk for severe illness stemming from a COVID-19 infection.

Proactive action, cooperation, and science-based decision-making are a necessary foundation for effective climate change and pandemic response plans. In addition, careful consideration of the disproportionate impacts of these crises is required to ensure response efforts are equitable. Globally, responses to COVID-19 have shown the importance of swift action: Pandemics and climate change share the characteristics of rapid escalation pitted against a limited capacity to protect communities from these harms.

Figure 2. Federal COVID-19 Budget and Spending

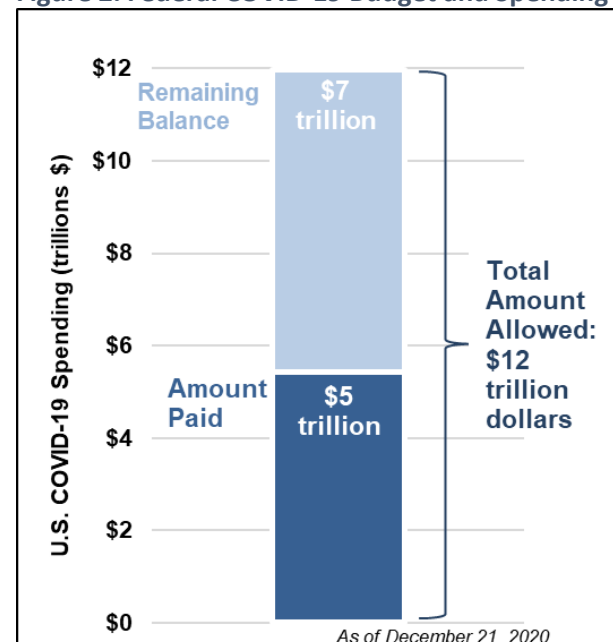
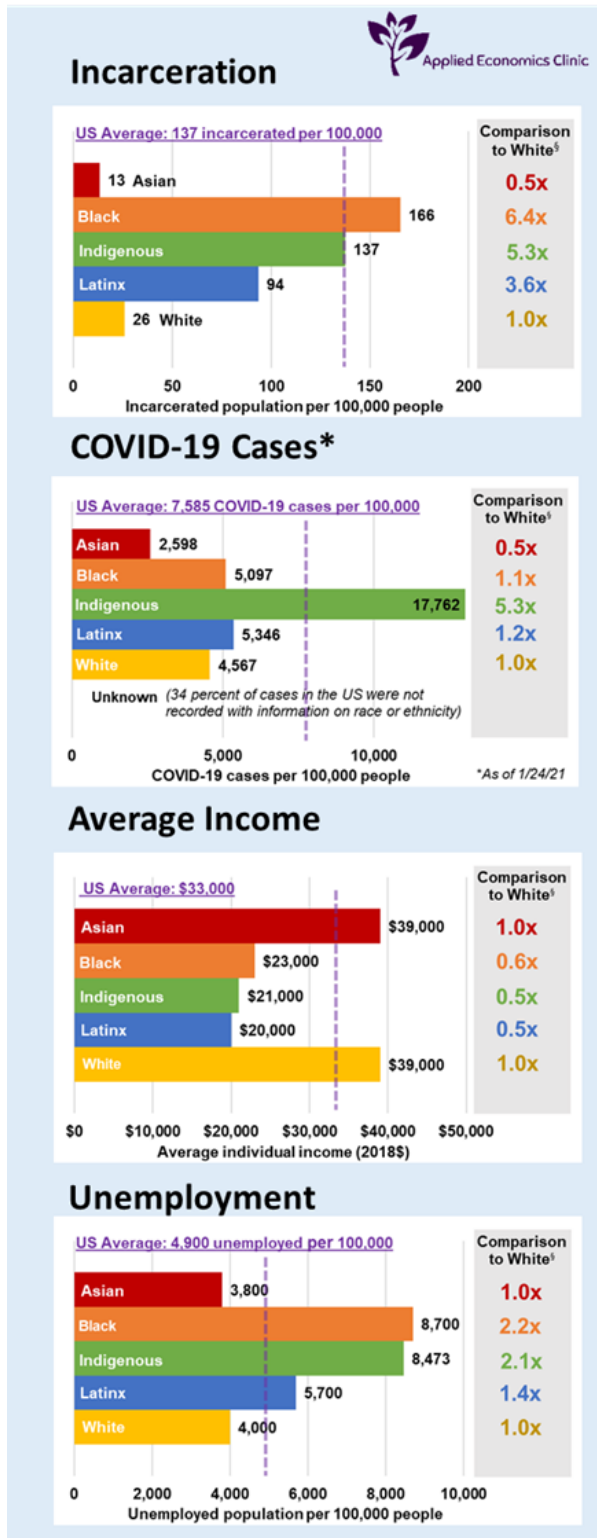


Figure 3. U.S. racial equity statistics



Environmental injustice exacerbates pandemic impacts

The effects of the pandemic have been worsened by three types of environmental injustice vulnerabilities: (1) more contact with others by working **essential jobs** (which increases exposure to pathogens), (2) greater exposure to **air pollution** (which compromises lung health), and (3) higher incidence of **stress and trauma** (which weaken immune systems). The rate, spread, and severity of COVID-19 cases vary widely by race and ethnicity—as of January 2021, Indigenous communities experienced the worst outbreaks compared to others: 17,762 COVID cases per 100,000, 5.3 times higher than white populations (see Figure 3).

Essential jobs: Recent research published in *The American Prospect* focuses on the role of race and ethnicity in COVID-19 deaths, finding that Black and Latinx people are at greater risk for exposure to COVID-19 because they are more likely to be employed in sectors deemed “essential” during the pandemic. For example, Black people made up 12.3 percent of the U.S. workforce but comprised 17.1 percent of “essential” service workers according to 2019 data from the Bureau of Labor Statistics. Moreover, BIPOC communities are more likely than their white counterparts to utilize public transportation to get around, putting them at increased risk for exposure.

Air pollution: Research undertaken at Harvard’s School of Public Health reveals a pattern of worse air pollution associated with a higher risk of death from COVID-19. In addition, U.S. counties that were ranked in the top 20 percent on 8 out of 11 of EPA’s environmental risk measures had a COVID-19 death rate about six times higher than counties that ranked in the top 20 percent of only 2 or fewer measures. (Six of EPA risk measures are directly related to air pollution: diesel particulate, PM 2.5 pollution, ozone pollution, air toxic cancer, respiratory hazards, and proximity to traffic.)

A 2020 Rhodium Group report addressing the intersection of COVID-19 and environmental justice, found that air pollution disproportionately burdens Black and Latinx populations leaving them at a higher risk for COVID-19 deaths. The Massachusetts’ Attorney General’s Office has found that Black and Latinx communities are more likely to reside near industrial facilities, highways, and other environmental risk areas, stating: “these inequalities have not only persisted but in fact worsened over time”, even as overall exposure has fallen. Similarly, a 2018 study from Boston University found that Black and Latinx communities in Massachusetts face higher levels of particulate-matter pollution and nitrogen oxide compared to other groups.

Due to these patterns, Massachusetts towns with a high COVID-19 infection rate coincide with those where environmental justice communities are located (see Figure 1 above). For example, the towns with the highest infection rates—Brockton, Everett, Lawrence, Lynn, and Revere—have large environmental justice communities (classified by U.S. Census Bureaus by share of minority population, income, and English language isolation).

Stress and trauma: A panel of University of California-Berkeley experts speculate that Black communities may be more susceptible to COVID-19 due to link between chronic health conditions and the stress and trauma associated with police violence. Studies conclude that Black people are more likely to be stopped by police and experience police-related injuries that can result in higher stress levels. Like air pollution, the diseases that lead to higher risk for COVID-19 deaths (e.g. asthma, diabetes, hypertension, heart disease) are associated with chronic stress.

Metrics for Black and white populations show racial disparities across many categories, including COVID-19 cases and deaths (see Figure 4). For example, Black communities have an incarceration rate 6.4 times that of white communities. Preexisting racial disparities (including unemployment, homelessness, and income) are also likely to be aggravated by both climate change and the COVID-19 pandemic.

Figure 4. Racial disparities in the United States, comparison of Black population to white population

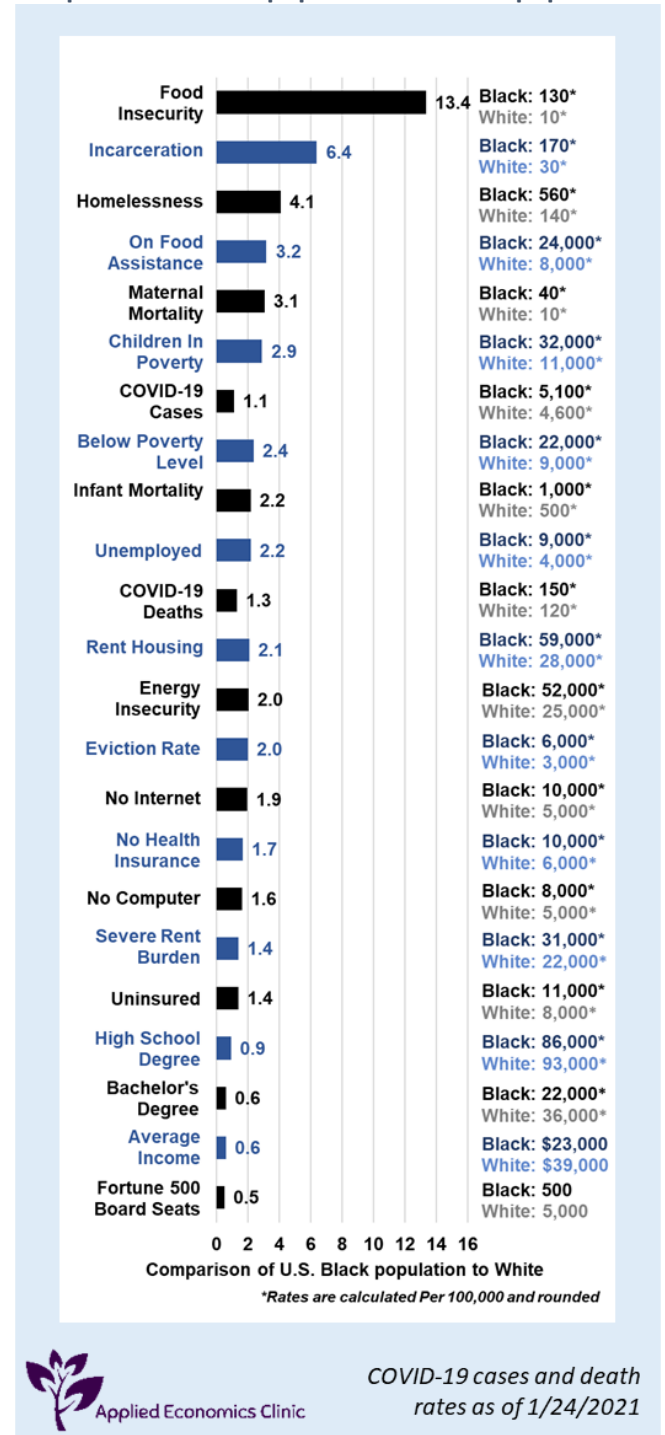
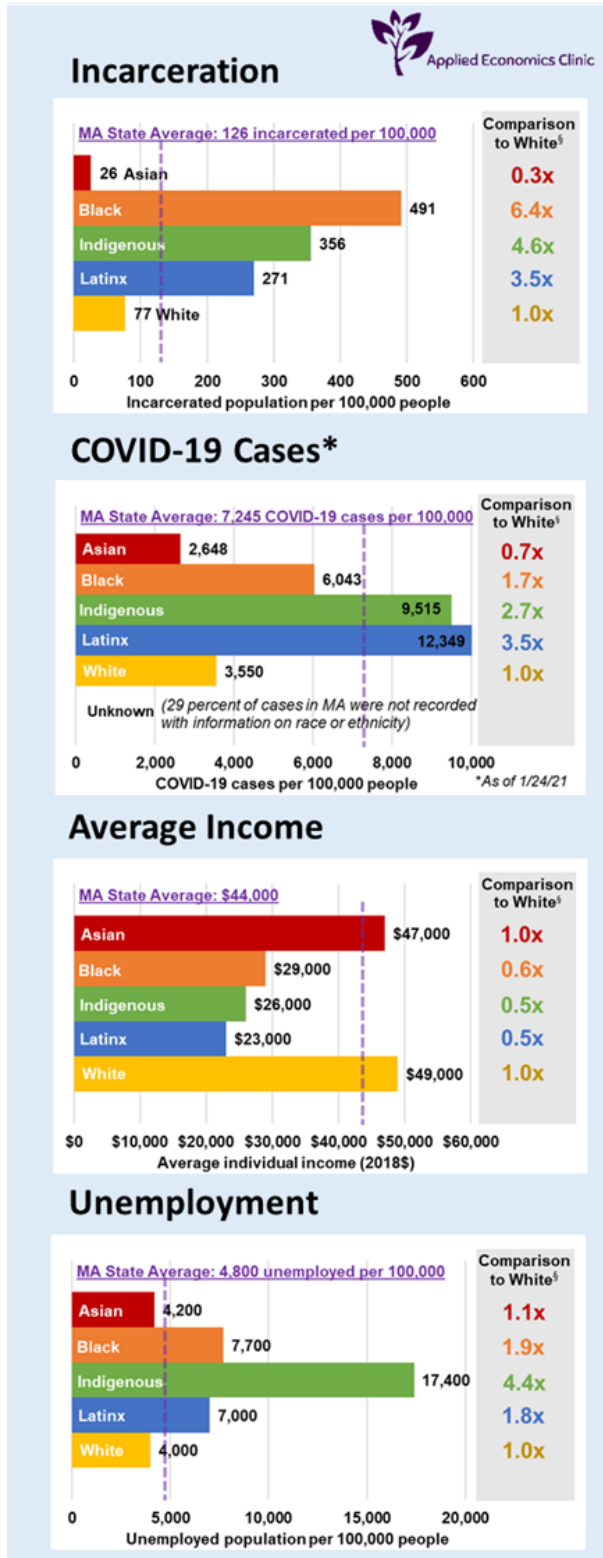


Figure 5. Massachusetts racial equity statistics



Nationally, racial disparities are shared among many of the BIPOC communities. Latinx, Black, and Indigenous populations experience a higher rate of COVID-19 cases, unemployment, and incarceration compared to their white and Asian counterparts. They also earn just around half the average income of white and Asian populations.

These national patterns of racial disparities are also seen in Massachusetts (see Figure 5). On average, white people in the Commonwealth have a lower rate of COVID-19 infection, incarceration, and unemployment while also earning an income about double that of Black, Indigenous, and Latinx peoples.

The pandemic has worsened existing disparities

The pandemic has aggravated disparities in **education**, **employment**, and **health**. The transition to remote and hybrid learning has been harder on Black, Latinx, and low-income students; women and minorities are bearing the brunt of the economic consequences of the pandemic; and BIPOC communities are getting sick and dying at higher rates from COVID-19.

Education: Schools operating remotely or with hybrid systems are finding that online learning increases existing disparities in access to high quality education. The Northwest Evaluation Association’s review of data from students’ Fall 2020 achievement assessments show small declines in reading scores for Black and Latinx students in the upper elementary grades compared to white students.

Also of great concern, roughly a quarter of students who took the achievement test in 2019 did not take it in Fall 2020. Students not participating were more likely to be BIPOC and to be from schools with high poverty rates. Since online teaching is only effective if students have consistent access to the internet and electronic devices, low-income, Black, and Latinx students are at a disadvantage.

This disadvantage is further exacerbated by the increased likelihood that Black and Latinx parents are working essential jobs and cannot stay home to help with online schooling.

Furthermore, existing opportunity gaps in the resources that foster enhanced learning such as food security, health insurance, and financial relief measures make it less likely low-income students will succeed in remote or hybrid learning. In Massachusetts, Black, Latinx, and low-income families are more likely to have children in all-remote schooling. In contrast, families with higher incomes, college degrees, and children enrolled in private schooling are more likely to have children in a hybrid learning model.

Employment: According to McKinsey and Company, the pandemic's economic consequences have exacerbated gender disparities in the workplace, especially for mothers, Black women, and female senior leadership. Not only are women being laid off and furloughed at higher rates than their male counterparts, but more women are also considering cutting their hours or leaving the workforce entirely since 2014.

Minority-owned small businesses are experiencing the brunt of the pandemic's effects. In April 2020, more than 40 percent of Black business owners reported not being in operation, while only 17 percent of white business owners reported closures. At the same time, fewer Black-owned businesses are benefiting from federal stimulus programs, which were intended to prioritize "underserved" markets and business owners of color. A Brookings analysis finds that counties with higher ratios of Black-owned businesses tend to have lower rates of Paycheck Protection Program fund allocation. In Massachusetts, higher percentages of Black and Latinx residents report experiencing more economic distress from the pandemic: 45 and 50 percent of Black and Latinx residents respectively compared to just 17 or 15 percent of Asian or white residents. In addition, 70 percent of Massachusetts' Black frontline essential

workers reported feeling unsafe at work.

Health: The COVID-19 pandemic has disproportionately impacted BIPOC communities. These groups are experiencing higher COVID-19 infection, hospitalization, and death rates than white populations. In addition, BIPOC individuals have been more likely to lose health insurance coverage, experience food insecurity, and avoid preventative healthcare services during the pandemic.

In Massachusetts, COVID-19 has amplified preexisting racial and ethnic health disparities. Like the United States, Massachusetts' BIPOC residents have higher COVID-19 infection, hospitalization, and death rates than white residents. Moreover, BIPOC residents have reported higher levels of anxiety and depression during the pandemic despite being less likely to seek mental health services.

A cooperative, science-based recovery is needed for both crises

Successful responses to the COVID-19 pandemic involve nationwide cooperation with science-based action—two tactics that are also critical for an equitable response to climate change.

Like the climate crisis, the pandemic is a global problem that results in specific BIPOC communities experiencing disproportionate costs and deaths compared to their white counterparts. A green recovery that considers racial inequities would ensure that economic and social aid is distributed to those who are most affected by the climate crisis. The recovery from the COVID-19 pandemic offers an opportunity to address inequities and promote a green economy while allowing room for the equitable transformation of our shared infrastructure and social safety net. To achieve true equity in the future, both climate and public health policies must address historical legacies of inequality not only in health and environmental actions, but throughout our society and economy.

Notes

§ These values highlight the disparities between BIPOC (Black populations, Indigenous populations, and populations of color) and white populations. Today in Massachusetts, Black persons have a COVID-19 positive rate 2.4 times that of white persons. See: Applied Economics Clinic. August 2020. Visualizations of Racial Inequity. Prepared for Renew New England. Available at: <https://aeclinic.org/publicationpages/2020/8/12/visualizations-of-racial-inequity>

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