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## State Campaign Organizer: Washington Poor People's Campaign

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# COLLEGE OF THE ENVIRONMENT



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**DATE:** 9/2/22

**Poverty, Race, and  
Environmental Justice:  
Evaluating the Poor People Campaign's  
Claims on Intersecting Injustices**

**Ian Schaefer Lorenz  
August 30th, 2022**

## Introduction and Purpose

The Poor People's Campaign argues that the day-to-day inequalities experienced by the 140 million Americans living in poverty and low wealth result from systemic, structural, and interconnected forms of injustice. The campaign views poverty, systemic racism, militarism, and ecological devastation as fundamentally intertwined forces in society that act in concert to bring about unequal outcomes marginalizing millions of people. This argument is presented by the Poor People's Campaign most clearly in a report published by the campaign and the Institute for Policy Studies in 2018- *The Souls of Poor Folk: Auditing America 50 Years After The Poor People's Campaign Challenged Racism, Poverty and the War Economy/ Militarism and Our National Morality* (Gupta Barnes et al 2018).

This paper aims to evaluate the connections laid out in *Souls of Poor Folk* between poverty, systemic racism, and ecological devastation and to look for key findings and patterns across different areas of research. The sources cited by Gupta Barnes et al will be examined and considered alongside foundational studies on environmental injustice and contemporary research. The discussion will focus on four environmental issues that the Poor People's Campaign argues are connected to systemic racism and poverty: the distribution of Superfund and other toxic waste sites, air pollution, access to clean water, heat exposure, and the impact of climate change.

By bringing these discussions together this paper will serve as a broad overview of different active areas of environmental and sociological research which are sometimes not connected. Looking for underlying causes and common findings will inform future research questions which have value beyond evaluating the arguments presented by the Poor People's Campaign.

## Superfund and Toxic Waste Sites

Following the exposure of toxins at Love Canal in 1977 and the struggle against the siting of PCB waste in Warren County NC in 1982, greater attention was paid to the geography of toxic waste across the United States and to the composition of the communities that were exposed (Bullard 1999, Mohai et al 2009). In 1987 the Commission for Racial Justice of the United Church of Christ, which had supported the struggle in Warren County, released a report titled *Toxic Waste and Race In the United States*. The report outlined empirically what was already understood by those who were most impacted: race was the most significant predictor for the siting of hazardous and toxic waste facilities in the nation. The report found that while roughly half of the nation lived in communities with hazardous waste sites the proportion of Black and Hispanic Americans living near these sites was closer to 60% and that where multiple waste sites were clustered the proportion of people of color was even greater (UCC 1987).

The publication of *Toxic Waste and Race* further focused the attention of environmental and social science researchers on the communities most exposed to toxic waste and other forms of pollution. Research over the following decades attempted to address whether the siting of hazardous waste was primarily driven by race, as asserted by UCC, or by class. A systematic and longitudinal study of census tracts adjacent to or containing Superfund sites in Florida found that, while the tracts in proximity to Superfund sites contained large numbers of low-income households, race more than any other demographic feature correlated with the location of the sites (Stetesky 1998). Their model showed that majority Black census tracts were three times as likely to contain a Superfund site than entirely white census tracts. The findings were so clear that the authors suggested that “economic discrimination may not be at play” (Stetesky 1998). Similar results were found in other parts of the country (Mohai et al 2009).

Revisiting the UCC report twenty years after its publication Bullard et al found that the disparities were worse than originally identified. By applying distance-based techniques Bullard

et al showed that neighborhoods within 3 km of Superfund or similar toxic waste sites were on average populated by 56% people of color, whereas non-host communities were on average only 30% people of color (Bullard et al 2008). While race remained the strongest predictor for the location of sites across the nation's metropolitan areas Bullard et al also found that poverty rates were 1.5 times greater and average incomes 15% lower near the waste sites. Much like the UCC findings, clusters of sites exacerbated the disparities. Communities adjacent to clusters of sites were on average 69% people of color and with over a fifth of community members living below the poverty line (Bullard et al 2008).

Recent research has further cemented the consensus that disparities in exposure to toxic waste impact communities of color and that these unjust exposures cause significant harm (Mohai et al 2009)<sup>1</sup>. Data from the US EPA shows that people of color make up 49% of the population living within three miles of a Superfund site while constituting just 39% of the general population. Similar smaller trends were found for those living under the poverty line, lacking a high school education, or experiencing linguistic isolation (US EPA 2020). Furthermore, individuals living in a census tract containing a Superfund site have been found to experience a loss of  $0.186 \pm 0.027$  years of life expectancy when compared to their neighbors in adjacent tracts (Kiaghadi et al 2021). Consistent with the EPA findings, Kiaghadi et al found that the census tracts containing the sites had more people of color with lower average levels of education and higher rates of poverty. Kiaghadi concluded that Superfund sites compounded the unjust situations of impacted communities to produce larger losses in life expectancy- up to 1.22 years in the most extreme cases (Kiaghadi et al 2021). These results suggest that injustice in varying forms has additive effects on the health and well-being of communities who are

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<sup>1</sup> Though beyond the scope of this paper, Krammer et al found in 2014 an association between proximity to Superfund sites, race, and gerrymandering at the Congressional District level. After adjusting for the natural irregularities in district shapes due to natural features, like coastlines, researchers found that as the % of district residents identifying as white increased so did their euclidian distance from the nearest Superfund site as well as the gerrymandering coefficient of their congressional district (Krammer et al 2014). Further research on the different ways that systemic injustice appears geographically, whether environmental or political, should be conducted to see if this relationship holds.

impacted and that an intersectional view can better support the lived experiences of those who are most affected. Ultimately, decades of data and research confirm what the Poor People's Campaign claims, where systemic racism and poverty are found in America toxic waste is likely nearby.

## **Air Pollution**

Much like disparities arising from the siting of toxic waste facilities, major health disparities have been documented through exposure to airborne pollutants. Particulate matter like  $PM_{2.5}$  and chemicals like  $NO_2$ , ozone, and chloroprene have been connected with losses in life expectancy and the development of asthma and cancer in segregated, fenceline, and impoverished communities.

Though  $PM_{2.5}$  rates have fallen across most of the United States since 1999,  $PM_{2.5}$  still remains a major contributor to reduced national life expectancy by increasing rates of cardiovascular diseases (Bennet et al 2019). In an analysis of counties in the contiguous US losses of life expectancy were found to be greatest in counties that had higher rates of poverty, lower median incomes and education levels, and greater percentages of Black residents. Each variable was found to independently correspond with loss in life expectancy though it remains unclear if this is due to greater exposure to  $PM_{2.5}$  or due to comorbidities arising through systemic health barriers such as a lack of access to healthcare, healthy food, or adequate housing. Researchers also note that communities are rarely exposed to  $PM_{2.5}$  in isolation from other air pollutants; Bennet et al found that  $PM_{2.5}$  rates often corresponded with higher rates of ozone and  $NO_2$  suggesting that the disparities in life expectancy likely arise not from any one pollutant but from a common set of structural circumstances (Bennet et al 2019).

In urban areas where air pollution is more prevalent  $PM_{2.5}$  and  $NO_2$  concentrations have been studied together in the context of redlining and modern segregation. When analyzing

Home Owners' Loan Corporation (HOLC) maps of 200 US cities, 2010 census data, and 2010 estimates of PM<sub>2.5</sub> and NO<sub>2</sub> levels researchers found that unjust infrastructure and urban planning decisions made nearly a century ago are still producing disproportionate outcomes (Lane et al 2022). Specifically, 64% of redlined neighborhoods with a D HOLC rating were still majority BIPOC. 74% of those neighborhoods were low to moderate income. NO<sub>2</sub> concentrations across most major urban areas were found to strongly correspond monotonically with HOLC grades- NO<sub>2</sub> levels were highest in the redlined D-rated neighborhoods and lowest in the A-rated neighborhoods. PM<sub>2.5</sub> levels exhibited a similar but weaker relationship (Lane et al 2022).

The cumulative impact of redlining and other policies which maintain segregation in US cities produce health impacts that go far beyond exposure to PM<sub>2.5</sub> and NO<sub>2</sub>. Lead, pesticide, SO<sub>2</sub>, and ozone exposure, asthma, adult and child mortality, food, and healthcare access have all been found to correlate with segregation and poverty (, Hird et al 1998, Morello-Frosch, Lopez 2006, Kravitz-Wirtz 2018)<sup>2</sup>. Morello-Frosch and Lopez detail how “historically, working-class and poor communities of color have been spatially bound in this process [of urban development] remaining close to aging, large production facilities, because of limits imposed by job search, work hours, income, and exclusionary housing development policies”. Interestingly, Morello-Frosch and Lopez found that pervasive segregation in US cities was tied to increasing cancer rates for all racial groups, including whites albeit at lower rates than people of color. As with the siting of Superfund and other toxic waste sites, many modern environmental harms arise from infrastructure decisions that place polluting sites and major traffic corridors in poor and low-wealth neighborhoods and neighborhoods of color impacting those communities directly, whereas white communities are more likely to be impacted indirectly (Hird et al 1998).

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<sup>2</sup> COVID-19 has also been found to disproportionately impact communities that were redlined in New York City (Li et al 2021). Nationally poor and low-wealth communities and communities of color have been found to experience up to five times as many deaths from COVID-19 during major waves of infection due to systemic injustices (Barber et al 2022).



The siting of fossil fuels industries provides another example of how infrastructure decisions impact the air quality of diverse people living in poverty or low wealth in the United States. In the central Appalachian regions of West Virginia, Virginia, Tennessee, and Kentucky white communities are impacted when particulates and other pollutants are released during the process of mountaintop removal coal mining. Poverty and mortality rates are higher in the central Appalachian regions of those state than other areas perhaps in part due to the additional air pollution and fewer employment opprotunities created through this destructive process of extracting coal (Hendryx 2012). Similarly, oil and gas production and refining occur next to predominantly Black, low-wealth, fenceline communities. The NAACP and Clean Air Task Force released a report in 2017 showing that oil and gas facilities release substantial amounts of air pollution that contribute to disparities for nearby Black residents. They found Black people generally were 75% more likely than whites to live in oil and gas fenceline communities and 38% more likely to breathe polluted air leading to higher asthma and cancer rates (Fleischman 2017). The city of West Port Arthur, Texas<sup>3</sup>, and the Louisiana Parishes constituting “Cancer Alley”<sup>4</sup> are cited as primary examples of how systemic racism and fossil fuels production facilities collectively impact Black Americans (Bullard 1999, Fleischman 2017, Gupta Barnes et al 2018, Nagra 2021). Indigenous communities are also impacted by siting decisions as seen in the US Army Corps of Engineers’ decision to reroute the Dakota Access Pipeline away from the wealthier and whiter city of Bismark, North Dakota toward the Standing Rock Nation (Gupta Barnes et al 2018).

Many reports and studies show that the Poor People’s Campaign is correct: air pollution disproportionately harms diverse poor and low-wealth communities in a variety of settings as a

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<sup>3</sup> West Port Arthur in 2013 was 95% Black with a cancer rate 15% higher and cancer mortality 40% than the Texas average. The city is also a major center for oil refineries on the gulf coast (Fleischman 2017).

<sup>4</sup> A study in St. John’s Parish Louisiana, a predominantly Black community with the highest cancer rates in the nation, 47 times the national average, found that proximity to the Denka Corporation's chloroprene plant was directly related to illness experienced by adults and children in the community including headaches, respiratory conditions, and cancer (Nagra 2021).

result of systemic and structural decision-making which values the needs of industry over human life and well-being. Rural communities near pipeline routes and extractive industries, urban neighborhoods redlined next to transportation corridors, ports, and manufacturing and refining facilities, experience higher rates of asthma, cancer, and mortality. As with toxic waste, race and income are the key predictors of which communities will be disproportionately exposed. Lane et al's research on redlining and urban air exposure to PM<sub>2.5</sub> and NO<sub>2</sub> reveals a fundamental feature of air pollution: many of the pollutants "are considered "short-lived" pollutants, yet the systems that create these disparities span more than a human lifetime".

## **Access to Water**

The Poor People's Campaign argues that access to clean water for drinking and sanitation in poor and low-wealth communities and communities of color is multifaceted. Proximity to Superfund and toxic waste sites, fossil fuel infrastructure, and major industries in rural and urban settings can greatly impact the quality of water available but access to water, regardless of its cleanliness, is often limited by access to housing, plumbing conditions, cost, and sometimes drought. Each of these factors must be considered alongside water quality to gain a full picture of the disparities in clean water access.

Often water access and indoor plumbing are viewed as universal in the United States. Some researchers, however, have decried this notion as a myth (Wescoat et al 2006). While the vast majority of people living in the US, including most people living in poverty, have indoor plumbing a proportion of the population does not. People experiencing homelessness in urban areas are likely the most visible members of communities lacking consistent access to water for drinking and sanitation (Gasteyer et al 2016, Wescoat et al 2006). Wescoat et al notes that some "public fountains run only seasonally, public toilets remain locked at night for fear of crime, and public baths shut for fear of sexually transmitted diseases". With few reliable sources of

water in public spaces, those who have been systemically denied housing are also forced to overcome barriers and health challenges arising from the denial of access to water.

One does not need to be unhoused, however, to not have access to complete plumbing. Current estimates suggest that approximately 0.5% of households in the United States lack such access. Households without complete plumbing are more often rural, denied educational and employment opportunities, low income or poor, and composed of elders. These households are often regionally clustered into counties where sometimes a majority of community members may not have plumbing (Gasteyer et al 2016, Mueller, Gasteyer 2021). Nationally, communities of color bear a disproportionate burden with Asian (0.89%), Black (1.10%), Native Hawaiian and Pacific Islander (1.40%), Hispanic (1.47%), and American Indian and Alaskan Native (4.41%) households lacking access to complete plumbing at greater rates than white households (0.47%) (Gasteyer et al 2016). Some American Indian and Alaskan Native communities are especially impacted with rates ten times or higher than those of white communities. Migrant workers living in temporary housing or camps, people living in Colonias on the US-Mexico border, Black Belt communities in Alabama, and some rural white communities in Appalachia have also been identified as disproportionately lacking access to complete plumbing in their homes (Gasteyer et al 2016, Gupta Barnes et al 2018). Though only a small proportion of people in America live in households without complete plumbing the unequal distribution of plumbing access across racial groups and the concentration of households lacking access in particular communities constitute major environmental injustices.

Even if one has access to housing with complete plumbing one's access to water is still contingent upon its affordability. Unlike other wealthy nations, like the United Kingdom, the United States has no federal laws which limit or bar utility companies from shutting off a household's water due to nonpayment of water bills (Mack, Wrase 2017). Shutoffs due to nonpayment are common in many US cities and can be endemic in some poor or low-wealth neighborhoods especially poor and low-wealth neighborhoods of color (Gasteyer et al 2016,

Gupta Barnes et al 2018, Mack, Wrase 2017, Pullen Fedinick 2019, Wescoat et al 2006). To better evaluate the impact of water affordability nationwide, Mack and Wrase compared incomes at the census tract level with average estimated water costs to determine what proportion of people were at risk of not being able to afford their water bills. They defined affordability based on guidance from the EPA that no more than 4.5% of a household's income should be spent on water and related sanitation costs. They found that 11.9% of US households were at high risk of not being able to afford their water bills and that an additional 23.5% of households were at risk if water costs continued rising at projected rates<sup>5</sup>. Furthermore, they found that the communities living in census tracts where water shutoffs were most likely had more people living with disabilities, lacking health insurance, experiencing unemployment, and more Black and Hispanic residents (Mack Wrase 2017).

A household's total water expenses can also be connected to the quality of water they receive from the tap. Purchasing bulk or bottled water can greatly increase water expenses for a household when their municipal supply or well water is unsafe and unfit for consumption. Communities in Flint, MI were forced to rely on alternate water sources, like bottled water, after the City's Emergency Manager switched from the Detroit water system to more acidic water from the Flint River leading to corrosion in the city's pipes and the exposure of tens of thousands of people to lead and other pollutants (Gupta Barnes et al 2018). As the communities in Flint, a majority Black city, organized to force the government to address the crisis they also had to organize to provide alternate water sources at great cost. Some rural Latinx households in the San Joaquin Valley<sup>6</sup> of California face similar circumstances as nitrate-rich runoff from

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<sup>5</sup> Mack and Wrase based this projection on a 41% average national increase in water rates over five years. While this may seem unreasonable, Mack and Wrase note that major cities such as Austin TX, Charlotte, NC, San Francisco, CA, and Tuscon, AZ have experienced 50% rate hikes in the five-year period prior to their study and that costs were expected to continue rising due to climate change, aging infrastructure, and increasing privatization of water utilities (Mack Wrase 2017).

<sup>6</sup> In other parts of the San Joaquin Valley, residents with complete plumbing and potable water have experienced water insecurity as a result of the ongoing drought in the region. Some rural, disproportionately Latinx households have been forced to drastically reduce their water consumption as their wells have dried up (Medina 2014). Drought has also impacted those who work most directly in agriculture reducing economic opportunities for farmworkers (Gupta Barnes et al 2018).

local agriculture seeps into the groundwater rendering local well water unfit to drink.

Researchers found that this additional cost had the effect of forcing households to “pay two water bills” (Balazs et al 2011).

The experiences of people in Flint and the San Joaquin Valley are unfortunately not isolated incidents. Major disparities in water quality are suggested by widespread violations of the Safe Drinking Water Act (SDWA): an estimated 40% of the population receive their drinking water from community water systems (CWSs) in violation of the SDWA (Pullen Fedinick et al 2019). The National Resource Defense Council in collaboration with Coming Clean and the Environmental Health Justice Alliance published a detailed report in 2019: *Watered Down Justice*. The report examines the connections between SDWA violations and county demographics to determine if any patterns are present in the distribution of violations across the nation’s diverse communities. Their key finding was that “at the county level, as people of color, low-income people, non-native English speakers, and crowded conditions or sparse access to transportation increased, the rate of drinking water violations increased” (Pullen Fedinick et al 2019). Specifically, their model showed that income, minority and language status, and transportation accounted for much of the variance in the distribution of violations ( $r^2 = 0.4108$   $p < 0.001$ ). Furthermore, they found that race, ethnicity, and language were also closely correlated with delayed and inadequate enforcement of the SDWA after violations were reported. These results are consistent with much of the literature on SDWA violations (Wescoast 2007, Switzer, Teodoro 2018, Mueller, Gasteyer 2021). Switzer and Teodoro found that the percentage of Black and Hispanic people served by a CWS had a positive relationship with SDWA health violations but that this relationship was ameliorated by income. Racial disparities in SDWA violations were found to decrease and then disappear at higher income levels suggesting that people of color living in poverty or low wealth, more than any other group, are exposed to unsafe drinking water.

The landscape of SDWA violations resembles the geography of disparities in water access identified by other researchers. CWSs in the Southwest, Texas, the Black Belt of

Alabama, the New York metropolitan area, San Joaquin Valley of California, and Appalachian regions of Pennsylvania, West Virginia, and Kentucky all experience high rates of violations<sup>7</sup> (Pullen Fedinick et al 2019, Mueller Gasteyer 2021). Studies have also shown that smaller CWSs, those serving less than 3300 households, account for the lion's share of the violations likely due to a lack of investment in infrastructure and federal disinvestment in CWS support (Wescoat 2007, Balazs 2011, Gupta Barnes 2018, Pullen Fedinick et al 2019).

Taken together, the issues of housing and complete plumbing access, water affordability, and water quality indicate that claims of universal access to clean water in the United States are false and serve to obscure a major crisis. Millions of Americans are at risk of water shutoffs or are unable to access water for drinking and sanitation due to a lack of housing or complete plumbing. Millions more may have access to water but are exposed to unsafe conditions in violation of the Safe Drinking Water Act. As with other forms of environmental harm, the impact of these systemic injustices falls disproportionately upon Americans living in poverty or low wealth and on people of color.

## **Climate Change and Heat Exposure**

An intergovernmental report recently added to the growing consensus that climate change will amplify and expand the geography of environmental health risk, especially for communities and individuals that are impacted by systemic injustice (Crimmons et al 2016). This view is consistent with many of the papers previously cited in the sections on Superfund and Toxic Waste Sites, Air Pollution, and Access to Water. Extreme weather events are projected to disturb and release toxins held within 60% of Superfund sites (Gomez 2020) leading to adverse outcomes for communities living near the sites and lower life expectancy (Kiaghadi et al 2021).

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<sup>7</sup> It is worth noting that the NRDC estimates that a substantial number of SDWA violations go unreported and are therefore not represented in the data set utilized in *Watered Down Justice*. They estimate that up to 35% of health violations and 77% of reporting violations are not reported by State agencies to the federal government, thereby masking parts of the national picture. Violations not present in the national database include those related to the water crisis in Flint MI (Pullen Fedinick et al 2019).

Similar expectations are held for the impact of extreme weather events on fossil fuels and drinking water infrastructure. Hurricanes like Katrina, Sandy, Harvey, and Maria disproportionately harmed poor and low-wealth Americans (Leichenko, Silva 2014, Gupta Barnes et al 2018) and did substantial damage to fossil fuels infrastructure resulting in the release of toxic air and water pollution in fence-line communities (Flieschman et al 2017, Gustin 2017). Mack et al expect that drinking water infrastructure repairs and upgrades along with increasing pressure on sources of clean water will result in higher drinking water costs for poor and low-income households reducing affordability and access. Understanding how toxic waste, air pollution, and water access will impact communities in the future is fundamentally intertwined with the many effects of climate change.

The effects of climate change, however, will not be limited to the areas previously discussed in this paper. Shifting climate patterns are expected to apply pressure to food systems potentially reducing the nutritional value of staple crops like rice and wheat (Crimmons et al 2016) and melting icecaps in polar regions are expected to drive rising sea levels which will permanently inundate some coastal areas. Both of these projections will likely result in disparate outcomes for marginalized communities but they require further research to better understand their potential impacts in the context of environmental inequity in the United States.

Unlike changes in food systems and the outcomes of coastal inundation, the intersections of urban heat exposure, climate change, and environmental inequality are better understood by academics. High temperatures in the summer can be deadly (Jesdale et al 2014, Huang et al 2018, Dialesandro et al 2021), and intensified heat exposure driven by climate change is projected to cause “thousands to tens of thousands” more premature deaths each summer (Crimmons et al 2016). Much like toxic waste, air pollution, and water access, the hardships of excessively high temperatures already affect systemically marginalized people first and worst. In Portland OR, neighborhood poverty, the proportion of people of color, the degree of education, and affordable housing were all found to correlate with excess heat exposure in

the summer. An increase of 10% more white people in a Portland neighborhood was found to correspond with a 0.1515 °C drop in summer temperatures (Voelkel et al 2018). On the other side of the country in the Gwynn Falls watershed of Baltimore MD, land surface temperatures were found to vary 16.58 °C on average between low-income neighborhoods of color in Baltimore city and the suburban and rural parts of the watershed which are whiter and wealthier (Huang et al 2018).

Similar disparities were found in 20 metro areas across the southwestern United States. When evaluated for average daily, nighttime, and extreme heat event temperatures all of the major cities in the southwest were found to have significant differences in heat exposure between the wealthiest and poorest neighborhoods. These differences were most pronounced during extreme heat events during which the poorest 10% of census tracts were found to be 2.2 °C hotter on average than the wealthiest 10% of tracts<sup>8</sup> (Dialesandro et al 2021). Dialesandro et al also found that there was a strong correlation between the poorest census tracts and the census tracts with the highest proportion of Latinx people.

Voelkel et al, Huang et al, and Dialesandro et al, each suggest that the disparities they observe in urban heat exposures are directly connected with urban planning and infrastructure decisions that limit poor and low-wealth people and people of color's access to cooling amenities such as bodies of water and green spaces, and instead concentrate them in areas with impervious surfaces and thermal pollution. A national study on the distribution of tree cover and impervious surfaces across major urban centers found that Black, Asian, and Hispanic people were more likely than their white counterparts to live in neighborhoods with increased heat risk (Jesdale et al 2014). Black people were the most likely to live in these neighborhoods, 52% more likely than white people in the same city. Jesdale et al's findings tracked with income levels such that wealthier neighborhoods had more cooling landcover features. They also found

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<sup>8</sup> The largest disparities were found in Palm Springs and the Inland Empire regions of California where the average extreme heat event temperature difference were 3.3 °C and 3.7 °C respectively (Dialesandro et al 2021).



that the greatest disparities were in cities with the highest levels of segregation (Jesdale et al 2014). The geography of heat exposure in US cities arises, like other forms of environmental injustice, from structural decisions that distribute environmental risks and disamenities to the poorest, blackest, and brownest neighborhoods while reserving environmental amenities for the whitest and wealthiest neighborhoods.

There is consensus that climate change will worsen the disparities of heat exposure in poor and low-wealth communities and communities of color (Jesdale et al 2014, Huang et al 2018, Voelkel et al 2018, Dialesandro et al 2021). Without major intervention, the “thousands or tens of thousands” of additional annual heat-related deaths predicted by Crimmons et al will be disproportionately borne by those who are already the most marginalized in our society.

Climate change is taking place amidst a backdrop of major environmental inequalities and it is poised to make the impact of each of the injustices described in this paper more intense and pervasive. Taking a broader view of the causes and results of climate change Gupta Barnes et al conclude, “The political power of the fossil fuel industry and the consequent governmental inaction on climate change are a vivid illustration of how racial, economic, and other forms of inequality are structural and institutionalized in the US political system. Only a system rooted in inequality would allow a wealthy elite to profit from a business model that threatens the future of most of humanity, including marginalized populations in this country. In that sense, climate change is caused by economic, social, and political inequality”.

## **Discussion and Conclusions**

The argument presented by the Poor People’s Campaign in *The Souls of Poor Folk* that environmental injustice (or ecological devastation to use the campaign’s phrasing) is connected to systemic poverty and systemic racism is widely supported by the literature. While some studies have found that race likely plays a greater role than income and wealth in explaining the

landscape of environmental injustice in the United States it is fair to say that *race and class* must be considered together to fully understand and address disparate environmental outcomes. Throughout each area of discussion, poverty and the racial segregation of people of color stood out as key predictors for the distribution of toxic waste, air pollution, clean water access, and heat exposure in the United States.

Gathering these areas of discussion together helps to reveal the underlying systems and structures that function to produce unjust outcomes. The geographic distribution of environmental amenities and disamenities is tied to historical injustices, like redlining, and continued disinvestment in infrastructure for impacted communities. While historic investments in infrastructure and climate change mitigation have been passed at the federal level in recent months it is unclear yet whether the Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act of 2022 will break the mold of decades of federal policy by actually directing resources to marginalized communities. Given the magnitude of the problem, further research, legislation, and action will be required. Full and equitable enforcement of current environmental laws and regulations is also clearly needed. Future efforts to address environmental injustice in the United States will need to recognize that diverse communities are impacted in multiple ways at the same time.

The intersectional approach of the Poor People's Campaign should be built upon and refined by further research and applied to fully address the ways that current environmental policies disproportionately harm people of color and perpetuate poverty in the United States.

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