

**BURNING BEHIND BARS:
THE 'CRUEL AND UNUSUAL' PUNISHMENT
OF CLIMATE CHANGE IMPACTING THE
INCARCERATED POPULATION OF TEXAS**

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Spring 2022

Acknowledgments

Crafting this research project was an overwhelming yet rewarding experience, representing the pinnacle of my college career. This journey would have been impossible without the support and guidance of my professors, friends, and family. First and foremost, I wish to express my sincere gratitude to Professor Cha, Professor Rodnyansky, and Professor Matsuoka for providing me with the advice, resources, and creativity essential to embarking on this challenging analytical writing process. A generous toast to Professor Cha in particular for instilling confidence in me despite the multitude of obstacles I confronted along the way. To all my siblings at Delta Omicron Tau, thank you from the bottom of my heart for inviting me into your lives and fostering a community of unwavering compassion and authenticity. To my best friend, Maddie, for reigniting my sense of spontaneity and adventure, and never letting me doubt myself; I cannot thank you enough for our late-night study sessions, mid-afternoon rants, and early-morning coffee runs. To all the powerful women in my life — Natasha, Rachel, Odelia, Hannah, Isabella, Tessa, Juliet, Dolly, Jenna, and Katie — thank you for the endless encouragement and making me into a better person. Y'all mean the world to me. Last but not least, a massive thank you to my parents for their unconditional patience and love.

Abstract

*As the repercussions of anthropogenic climate change grow increasingly detrimental across the planet, the incarcerated population bears the brunt of global warming. This research project investigates inmates' disproportionate exposure to extreme heat and humidity through a constitutional, human rights, and environmental justice framework. A review of existing literature and case study of *Cole v. Collier* — a multi-year litigation held at the United States District Court for the Southern District of Texas — together aim to justify how prison living conditions constitute “cruel and unusual punishment” pursuant to the 8th Amendment of the United States Constitution. A demographic analysis of carceral institutions further suggests that the lack of climate control infringes upon the guarantees enumerated by the Americans with Disabilities Act (ADA) of 1990 and Rehabilitation Act (RA) of 1973. Specifically, the results of the case study exhibit the blatant disregard of constitutional entitlements, deliberate indifference of corrections officers towards suffering detainees, the ineffectiveness of heat stress mitigation measures, and the prioritization of heat-sensitive individuals. The project encourages criminal justice reform efforts to take into consideration the internal prison environments, overall recommending policies to elicit mass decarceration, the minimization of inmates' exposure to excessive temperatures and promotion of heat acclimatization, the phasing out of obsolete penitentiaries, the construction of sustainable and climate resilient institutions, the retrofitting of facilities to maximize adaptability, the establishment of “Heat Monitoring Committees”, the streamlining of inmates' filing of grievances, and the adoption of a United Nations approach to human rights enforcement.*

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Introduction

"It's like living inside a hot-box or oven in the middle of summer."

Elliott Williams, prisoner at Mark W. Michael Unit in Texas

Although anthropogenic climate change impacts the livelihoods of everyone in the United States to varying degrees, the incarcerated population is disproportionately jeopardized by the environmental and sociopolitical ramifications of this ongoing crisis. American carceral institutions not only face dangerous overcrowding (roughly half of high and medium-security male facilities operate above rated capacity) but depend on inadequate infrastructural features such as poor ventilation, heat-retaining materials, incapacitating spaces, and the absence of air conditioning (Skarha et al., 2020). These circumstances expose convicted felons to temperatures surpassing 100°F (37.8°C) and humidity levels approaching 100%, conditions correlated with higher rates of mortality and suicide, psychiatric and physical morbidities, subpar cognitive functioning, and increased violence and aggression ("Deadly Heat in U.S. [Texas] Prisons," 2014; "Heat and Health," 2018). Classified as a vulnerable population due to their geographic isolation and cultural and ethnic characteristics as well as the overarching "social and economic disenfranchisement of mass incarceration", inmates may be threatened by heat-related health and safety risks to a greater extent than the general public (Skarha et al., 2020; Motanya & Valera, 2016).

Global warming is occurring at a speed and magnitude unprecedented in modern history, and the relationship between the carceral system and climate-related natural disasters remains underestimated by local, state, and federal bureaucracies which broadly exclude the incarcerated population from environmental risk legislation applicable to society at large. Unencumbered by universal temperature standards, the American criminal justice system neglects to defend the inviolable rights of inmates to life, health, dignity, and physical integrity, ultimately defying the

8th Amendment of the Constitution, the Americans with Disabilities Act (ADA) of 1990, and the Rehabilitation Act (RA) of 1973. Such incompetence is perhaps most controversial in Texas, which boasts one of the largest inmate populations and highest imprisonment rates in the country (*see Appendix V*) (“Deadly Heat in U.S. [Texas] Prisons,” 2014; 4:14-cv-01698). Because a mere 30 of 109 Texas Department of Criminal Justice (TDCJ) penitentiaries contain fully-installed air conditioning units, the heat index inside these facilities regularly exceeds 149°F (65°C) during the summer months (Jones, 2019; Chammah, 2017). These excessive and unregulated temperatures are responsible for the deaths of at least 14 Texan inmates since 2007, 5 of whom succumbed to hyperthermia after spending less than a week in custody (“Deadly Heat in U.S. [Texas] Prisons,” 2014). Despite the abundance of grievances and lawsuits filed by inmates in protest of hazardous internal temperatures, the criminal justice system overwhelmingly lacks empathy and compassion towards convicts, administrative implementation of tangible improvements remains stagnant, and correctional officers continue to escape accountability.

This comprehensive research seeks to investigate the unique consequences of heat on incarcerated populations from a public health and political perspective in order to emphasize the urgent need for reform and reinvestment in the criminal justice system. Through a case study of *Cole v. Collier* (4:14-cv-1698) filed by the U.S. District Court Southern District of Texas in 2016, this project aims to address the following questions:

1. *How does climate change disproportionately impact incarcerated individuals?*
2. *Why is the overheating of prisons deemed “cruel and unusual” punishment, infringing upon inmates’ constitutional entitlements and fulfillment of environmental justice?*

Background

“No one truly knows a nation until one has been inside its jails. A nation should not be judged by how it treats its highest citizens but its lowest ones.”

Nelson Mandela

Climate Change & Heat

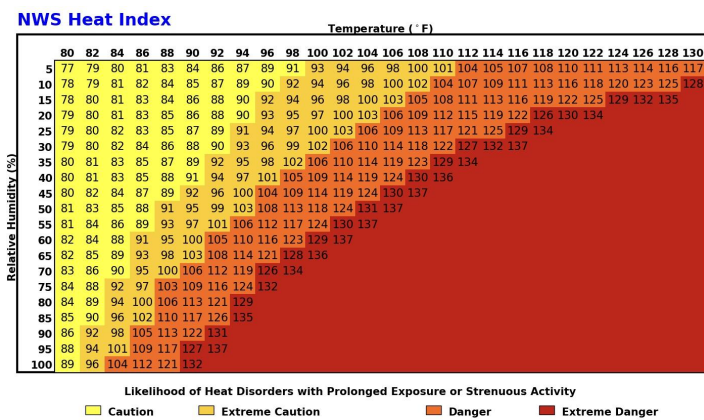
The phenomenon of climate change is defined by the Intergovernmental Panel on Climate Change (IPCC) as an extended period of fluctuation in the “state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties”; whereas geological records prove the role of natural factors such as orbital variations and volcanic eruptions in altering the global atmospheric composition, contemporary climate change is predominantly the culmination of human activities (“Glossary of Terms,” 2012). Specifically, anthropogenic climate change is driven by the emission of greenhouse gas at high concentrations into the atmosphere sourced from transportation, electricity production, deforestation, livestock agriculture, nitrogen-containing fertilizers, manufacturing, consumer practices, pollution, and the burning of coal, oil, and gas (“Causes of Climate Change,” n.d.). This enormous release of carbon dioxide, methane, nitrous oxide, and fluorinated gas traps some of the Sun’s heat close to Earth’s surface, ultimately generating the greenhouse effect which contributes to global warming, the “estimated increase in global mean surface temperature (GMST) averaged over a 30-year period...expressed relative to pre-industrial levels unless otherwise specified” (“Overview of Greenhouse Gases,” n.d.; “Glossary of Terms,” 2012). The aggregatory effects of the climate crisis afflict not only the current generation but yield more irrevocable consequences for the future generations to confront.

Climate change impacts all sectors of life, including the environment, wildlife, essential resources, the economy, and public health. Directly linked to climate variability, the hotter

temperatures are associated with rising sea levels, melting polar ice, ocean warming and acidification, loss of biodiversity, destruction of habitat, heavy rainfall, desertification, crop failure, species endangerment or extinction, air and water pollution, and weather disasters including storms, floods, droughts, and wildfires that are longer, more frequent, and more intense than ever before (“What Is Climate Change?” n.d.). Furthermore, climate change is projected to curtail economic growth long-term by disrupting and destroying crucial infrastructure and property, labor productivity, and the survival of regional industries that depend on “natural resources and favorable climate conditions such as agriculture, tourism, and fisheries” (“Fourth National Climate Assessment: Impacts, Risks, and Adaptation in the United States,” 2018). Climate variability additionally magnifies the socioeconomic issues of inequality, poverty, forced displacement, and conflict (Islam & Winkel, 2017). Alarmingly, the World Health Organization (WHO) warns that climate change is the “single biggest health threat facing humanity” in modern day (“COP26 Special Report On Climate Change and Health: The Health Argument for Climate Action,” 2021).

Arguably the most catastrophic outcome of global warming is the more severe, more recurrent, and longer heatwaves. In fact, exposure to extreme heat not only precipitates violence but has incited more deaths than any other weather-related hazard — more than hurricanes, tornadoes, earthquakes, and flooding combined — impacting people of any age independent of physical fitness level or baseline health status (Phillips et al., 2021). Characterized by the National Weather Service (NWS) as a period of abnormally hot weather accompanied by humidity that typically lasts for two or more days (and usually several weeks), a heatwave is gauged relative to the average climate patterns of the area and for the season (“During A Heat Wave,” n.d.). According to the National Centers for Environmental Information (NCEI), Earth’s

temperature has ascended at a rate of 0.14°F (0.08°C) per decade since 1880, while the rate of warming per decade since 1981 is more than double that: 0.32° F (0.18° C) (Lindsey & Dahlman, 2021). Heat is alternatively forecasted using the Heat Index, a measure of how hot it feels when relative humidity (the “percentage of moisture in the air compared with the maximum amount of moisture the air can hold”) is factored in with the actual temperature of the air (“Climate Change and Extreme Heat: What You Can Do to Prepare,” 2016). In other words, air temperature, relative humidity, and the Heat Index are directly related, meaning that as the air temperature and relative humidity increase so does the Heat Index, and vice versa; the common colloquial phrase, “It’s not the heat, it’s the humidity!” is thus somewhat of a misnomer (“What is the Heat Index?” n.d.). The Heat Index chart stipulates the numerical ranges for the “Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity” across 4 categories: “caution”, “extreme caution”, “danger”, and “extreme danger” (see Figure 1 and Figure 2) (“What is the Heat Index?” n.d.). The NWS relies on this scale to determine when to issue heat advisories, watches, and warnings in order to protect society from dangerous climatic conditions.



[Figure 1]

HEAT INDEX (°F)	HEALTH EFFECTS	RECOMMENDATIONS
80-89	fatigue is possible	limit time outdoors, stay well-hydrated by drinking 10 gulps of water every 20 minutes
90-104	sunstroke, heat cramps and heat exhaustion are possible	limit strenuous outdoor activity, limit time spent outdoors, stay well-hydrated by drinking 10 gulps of water every 20 minutes
105-129	sunstroke, heat cramps, and heat exhaustion are likely heatstroke is possible	avoid strenuous outdoor activity, stay indoors in an air-conditioned facility, stay well-hydrated by drinking 10 gulps of water every 20 minutes
130+	heatstroke/sunstroke is highly likely	avoid strenuous outdoor activity, stay indoors in an air-conditioned facility, stay well-hydrated by drinking 10 gulps of water every 20 minutes, check in with family/friends/neighbors

[Figure 2]

Legal & Constitutional Rights of Prisoners

Inherent to incarceration is the surrendering of constitutional privileges, freedoms, and civil duties in a controlled environment. The Supreme Court in *Hudson v. Palmer*, for instance, declared that the right to privacy as enumerated by the 4th Amendment is incompatible with the prison setting because warrantless searches of inmates' cells is necessary to maintain "internal security and safety...[by] preventing the introduction of weapons, drugs, and other contraband into the premises" (468 U.S. 517, 1984). Inmates' freedom of speech is also limited, as exercising the 1st Amendment in its entirety would conflict with their status as prisoners or the "legitimate penological objectives of the corrections system" to preserve order, discipline, security, and rehabilitation, as expressed in the 1974 case *Pell v. Procunier* (417 U.S. 817, 1974). Finally, de jure felony disenfranchisement oppresses the right of inmates to vote as granted by the 26th Amendment, with the voting eligibility of current and former felons varying across the country (Porter, 2020). A *Federal Probation* journal article analyzing the 3 phases of the Supreme Court's response to the prisoners' rights — the Hands-Off Period (before 1964), the Rights Period (1964-78), and the Deference Period (1979-present) — finds that the Court historically favors inmate with respect to their right to access the courts, but favors correctional facilities in cases concerning individual rights, due process issues, and cruel and unusual punishment (Call, 1995).

Despite the incarcerated population's extraordinary loss of freedom, inmates continue to retain fundamental human rights behind bars which may prove invaluable in legally fighting the triple-digit temperatures inside penal institutions. Specifically, the 1st Amendment to the Constitution guarantees that (*U.S. Constitution, Amendment I*):

“Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.”

In the 1987 *Turner v. Safley*, Justice Sandra Day O’Connor stated that “[p]rison walls do not form a barrier separating inmates from the protections of the Constitution” and “when a prison regulation impinges on inmates’ constitutional rights, the regulation is valid if it is reasonably related to legitimate penological interests”; the Supreme Court verdict that restrictions on inmates’ constitutional rights were subject to a “proper standard of review” overall set a precedent in the Supreme Court’s 1st Amendment jurisprudence (482 U.S. 78, 1987). The Assemble and Petition Clause permits prisoners to access the courts through criminal appeals (often through a writ of habeas corpus) or civil rights lawsuits, avenues discussed in detail by the Court in the 1969 case of *Johnson v. Avery* (393 U.S. 483, 1969). Moreover, incarcerated individuals who file complaints, grievances, and lawsuits against prison staff maintain the Constitutional right to be free from retaliation (“First Amendment Retaliation,” n.d.).

Shifting the 1st Amendment from theory to practice has proven to be challenging for inmates despite supportive Court opinions. In the 1984 case *Hudson v. Palmer*, for example, the Supreme Court emphasized the fact that institutional safety and security will generally supersede the entitlements of inmates when the two matters collide (468 U.S. 517, 1984). The Prison Litigation Reform Act (PLRA) enacted by Congress in 1996 creates another barrier for inmates aspiring to uphold their constitutional right to pursue litigation (42 U.S.C. § 1997e). Specifically, section 1997e(a) of the PLRA ambiguously mandates that (S.866, 104th Congress, 1995-1996):

“No action shall be brought with respect to prison conditions...by a prisoner confined in any jail, prison, or other correctional facility until such administrative remedies as are available are exhausted.”

Designed to deter what Congress perceived as a skyrocketing of “frivolous” lawsuits while preserving meritorious suits, this provision effectively makes it unrealistic for domestic prisoners to use the Court to file grievances, sue correctional officers for financial damages, or request a transfer or release (Benerofe, 2021). Nevertheless, in the 2007 case *Jones v. Bock*, the Supreme Court Justices unanimously voted that it is not actually necessary for a prisoner litigating under the PLRA to plead and confirm “exhaustion” of all other administrative remedies in order for the complaint to reach the Court (549 U.S. 199, 2007). A horde of vested interests interfere with the right of inmates to exercise the Assemble and Petition Clause of the 1st Amendment, an issue amplified by the societal demonization of the incarcerated population.

The 8th Amendment to the United States Constitution specifies that (*U.S. Constitution*, Amendment VIII):

“Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.”

The Cruel and Unusual Punishment Clause has prompted significant judicial disagreement due to the lack of definitions of “cruel” and “unusual” provided by the Bill of Rights. In *Estelle v. Gamble*, the Court interpreted the guarantee to protection from cruel and unusual punishment as upholding the “dignity, civilized standards, humanity, and decency” of prisoners (429 U.S. 97, 1976). As interpreted in *Wilson v. Seiter* and *Farmer v. Brennan*, inmates may have a cause of action under the 8th Amendment if they can demonstrate that (501 U.S. 294, 1991; 511 U.S. 825, 1994):

1. *Conditions in a correctional facility alone or in combination, objectively pose a substantial risk of harm [through illness or injury], even if no harm resulted yet; and*
2. *Government officials were subjectively aware of the risk and acted with deliberate indifference to the danger posed to the inmates' health or safety.*

The character of inhumane prison conditions was further analyzed in *Rhodes v. Chapman*, in which the Court upheld that the founding document “does not mandate comfortable prisons” and therefore “restrictive and even harsh” circumstances of confinement serve as part of the “penalty that criminals pay for their offenses against society”; that said, correctional administrations are prohibited from depriving prisoners of their essential needs, such as medical care, food, clothing, shelter, and sanitation (452 U.S. 337, 1981). There remains no universal definition of “cruel and unusual punishment”, but this treatment is generally understood as the “unnecessary and wanton infliction of pain” so long as the incident was not executed in good faith, to restore discipline, or “based on maliciously and sadistically for the purpose of causing harm”, as expressed in *Whitley v. Albers* (475 U.S. 312, 1986).

On a broader scale, the Supreme Court incorporates the principles underlying Intentional Human Rights norms, a practice mirroring the strategies used by courts in other countries, including Romania, Peru, Greece, and England; for instance, “cruel and unusual punishment” has been interpreted through the lens of the United Nations’ Universal Declaration of Human Rights (UDHR), the United Nations’ Standard Minimum Rules for the Treatment of Prisoners (SMRs), the International Covenant on Civil and Political Rights (ICCPR), and the Convention Against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment (CAT) (“Deadly Heat in U.S. (Texas) Prisons,” 2014). “It does not lessen fidelity to the Constitution or pride in its origins to acknowledge that the express affirmation of certain fundamental rights by other nations and peoples underscores the centrality of those same rights within our own heritage of freedom”, the American Supreme Court said in the landmark case *Roper v. Simmons* (543 U.S. 551, 2005).

In addition to the civil liberties listed in the Bill of Rights, inmates are entitled to the rights established by the Americans with Disabilities Act (ADA) of 1990 [42 U.S.C. § 12101].

Title II of this federal civil rights law states the following (13 42 U.S.C. § 12132):

“[N]o qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.”

The act defines a “disability” as any “physical or mental impairment that substantially limits one or more major life activities”, such as walking, eating, breathing, caring for oneself, seeing, hearing, and communicating (42 U.S.C. § 12102). In the 1998 case *Pennsylvania DOC v. Yeskey*, the Supreme Court held that the protections of the ADA apply just as much to prison inmates as they do to liberated individuals, and thus correctional facilities are responsible for instituting reasonable accommodations for inmates with disabilities (524 U.S. 206, 1998). Nonetheless, many prisoners have accessed the Courts to challenge inadequate medical care, the failure of correctional officials to provide medical supplies or devices such as wheelchairs or canes, confinement in isolation and segregation units, and the denial of medical treatment, food, showers, lavatory use, access to the yard, and educational opportunities purely due to their physical or mental impairment (“Know Your Rights: Legal Rights of Disabled Prisoners,” 2012). Debates involving the ADA generally mention the Rehabilitation Act (RA) of 1973, a federal law that makes it illegal for any program or activity receiving money from the federal government to deny qualified individuals their right to receive reasonable accommodations, or otherwise discriminate based on mental or physical disabilities which substantially limit one or more major life activities even with the help of medication and/or devices (29 U.S.C. § 701 et seq). Inmate grievances concerning the ADA often incorporate the 8th Amendment to reinforce their complaints and demands.

Incarceration in Texas: “Cruel and Unusual”?

Texas is perhaps the epitome of the intersection between mass incarceration and extreme heat. The Lone Star state locks up approximately 251,000 residents as of 2018, with an incarceration rate of 840 per 100,000 people (Jones, 2018, Widra & Herring, 2021). Texas also ranks as the 4th-hottest in the nation; by 2036, the average annual surface temperature is projected to rise 3.0°F (-16.1°C) from its 1950-1999 average and the number of 100°F (37.8°C) days is expected to nearly double that of 2001-2020 (Nielsen-Gammon et al., 2020). Over 70% of TDCJ penitentiaries do not have air conditioning (while 95% of households in the South do) and many have been in operation for over 100 years (Adair, 2020; Jones, 2019). Since 1998, more than 20 detainees in TDCJ penitentiaries have died from the record-breaking heat, which according to recent temperature logs has spiked beyond 110°F (43.3°C) as early as 10:30 in the morning and remained above 90°F (32.2°C) even past midnight (*see Appendix I*) (Chammah, 2017; “Deadly Heat in U.S. [Texas] Prisons,” 2014). The incarcerated population across the state is facing an unprecedented growth of elderly inmates, inmates with preexisting conditions, and inmates taking prescription medications, all of which contribute to heat-sensitivity; despite inmates’ filing of complaints and grievances, the TDCJ and the Texas Legislature remain indifferent to the issue (“Climate Change and Extreme Heat: What You Can Do to Prepare,” 2016). The magnitude of these statistics alone warrants a case study analysis of why, how, and to what extent the TDCJ is remodeling its infrastructure, administrative policies, and disciplinary strategies to account for transformations in the climate and their effects on inmates.

Literature Review

*I pray thee, good Mercutio, let's retire.
The day is hot; the Capulets, abroad;
And if we meet we shall not 'scape a brawl,
For now, these hot days, is the mad blood stirring.*
Romeo and Juliet (Act I, Scene 1), William Shakespeare

In order to interpret the impact of sweltering heat on prisoners through a case study of *Cole v. Collier* (4:14-cv-01698), it is important to acknowledge the built environment and correctional framework of penitentiaries nationwide and specifically in Texas. The following review of existing research crafted by lawyers, public health experts, and scholars of climate and criminal justice reform serves to establish the intersecting issues of public health inequities, heat-related environmental injustice, and demographic disparities in the incarcerated population.

Disproportionate Risk to Heat-Related Mortality & Morbidity

According to the EPA's 2016 report "Climate Change and Extreme Heat: What You Can Do to Prepare", extreme heat ("summertime temperatures that are much hotter and/or humid than average") and heatwaves are unhealthy for all human beings, but some people are more at risk of developing fatal and non-fatal adverse health outcomes than others by virtue of geographic, demographic, and behavioral characteristics including race, income, presence of preexisting conditions, taking certain medications, and residency status. Specifically, the EPA model categorizes three key determining factors:

1. *Exposure*
2. *Sensitivity*
3. *Ability to respond and prepare*

Exposure refers to the fact that not everyone is exposed to high temperatures and humidity to the same degree; for example, residents of urban heat islands and members of the unhoused

population are more likely to suffer from heat-related calamities in comparison to people in suburban or rural areas or who otherwise spend a majority of the day indoors in an air-conditioned home (“Climate Change and Extreme Heat: What You Can Do to Prepare,” 2016). *Sensitivity* pertains to the idea that tolerance and self-adaptability to heat and humidity varies person-to-person, as research shows that older adults and the elderly, individuals with preexisting chronic (mental, neurological, and physical) health conditions, and individuals who take particular prescription drug medications

known to interfere with thermoregulation (e.g., antipsychotics, diuretics, antidepressants, antihistamines, beta blockers, and calcium channel inhibitors) for instance, are less tolerant to heat than populations without these traits (“Climate Change and Extreme Heat: What You Can Do to Prepare,” 2016). Finally, the *ability to respond and*



[Figure 3]

prepare conveys how people differ in their ability to consistently avoid excessive heat and humidity, whether due to living in a controlled environment (i.e. a prison, mental health facility, or nursing home) or otherwise lacking in physical mobility or cognitive ability (“Climate Change and Extreme Heat: What You Can Do to Prepare,” 2016). The heat epidemic kills over 600 people in the United States annually and therefore represents the leading weather-related cause of death in the nation (see Figure 3), stressing the extent to which social determinants of health can be a matter of life and death for individuals experiencing heat-related environmental hazards (“Climate Change Indicators: Heat-Related Deaths,” 2021; “Weather Related Fatality and Injury Statistics,” 2020).

Mass Incarceration as an Environmental Injustice

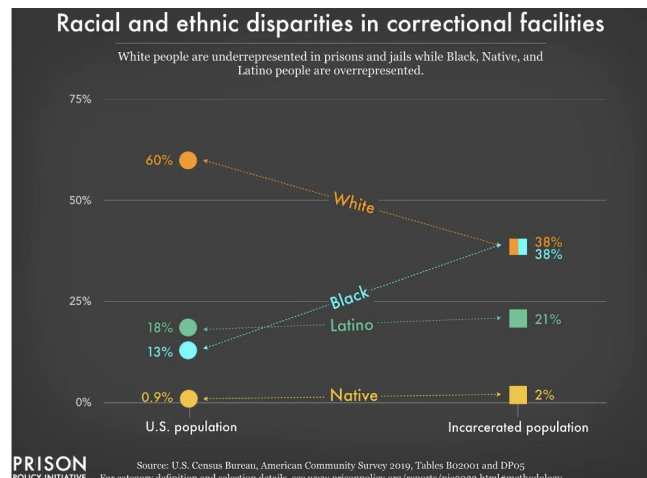
Akin to virtually every social injustice, mass incarceration is intersectional, exacerbating the preexisting structural inequities relevant to the environmental justice movement; climate activists, for instance, now reframe “the environment” as constituting the spaces where we “live, work, play, learn, and pray...*and do time*” (Gribble & Pellow, 2022). The EPA defines environmental justice as the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies”; here, “fair treatment” implies that no individual or group “should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies”, while “meaningful involvement” refers to the opportunity for community members to participate in decision-making about projects that may affect their environment and/or health and influence the endeavors of regulatory agencies (“Learn About Environmental Justice,” n.d.). As Motanya and Valera point out in “Climate Change and Its Impact on the Incarcerated Population: A Descriptive Review”, correctional facilities are generally exempt from environmental crisis protocols created by the federal government to reduce the impact of climate change and other environmental hazards on human beings (Motanya & Valera, 2016). Prisoners also confront a lack of political representation and access to social services, largely excluded from conversations about climate justice proposals (such as the Green New Deal) which neglect to consider the implications of decarceration, prison abolition, and demilitarization on environmental justice (Kelly, 2019). Evidenced by the consistent refusal of the American Department of Justice’s Federal Bureau of Prisons (BOP) to evacuate incarcerated individuals under the threat of environmental disasters (such as Hurricane Katrina or wildfires in California) — even when

surrounding community members are instructed to do so — the “culture of neglect toward safety and health” means that American correctional facilities are wholly unprepared to counteract and recuperate from natural and manmade disasters (Omorogieva, 2018).

Serving time during the heat epidemic essentially functions as a de facto social determinant of health. In 2015, scholars at the Human Rights Clinic of the University of Texas School of Law released “Reckless Indifference: Deadly Heat in Texas Prisons”, a comprehensive report promulgating the internal corruption of TDCJ facilities from a public health perspective. Although every detainee undergoes a 60-minute standardized medical and mental health evaluation upon intake, the researchers concluded through a series of semi-structured interviews with inmates and their spouses that the Texas correctional sector is unequivocally incompetent in the “implement[ation] [of] preventative and reactive heat reduction measures” to protect individuals at higher risk for developing heat-related illnesses (“Reckless Indifference: Deadly Heat in Texas Prisons,” 2015). Inmates are moreover incentivized to avoid rehabilitation from the carceral medical clinic because of the existing financial barriers to accessing treatment options (“Reckless Indifference: Deadly Heat in Texas Prisons,” 2015). The TDCJ’s statistical report for fiscal year 2019 reveals that 23% of inmates are 50 years of age or older and thousands are serving life sentences (“2019 Statistical Report,” 2019). On a national scale, an estimated 40% of state and federal prisoners and jail inmates have a chronic medical condition as expressed by Maruschak, Berzofsky, and Unangst from the Bureau of Justice Statistics (BJS) (Maruschak et al., 2016). Data compiled by the University of Texas Medical Branch (UTMB) in collaboration with the TDCJ similarly found that 82% of Texan prisoners suffer from some form of mental illness, 80% of whom are treated with psychoactive medications (“Reckless Indifference: Deadly Heat in Texas Prisons, 2015). Tellingly, of the 14 preventable fatalities that

have occurred on the grounds of TDCJ penitentiaries since 2007, 13 victims took prescribed medications which heightened their sensitivity to heat, all 14 suffered from preexisting medical conditions with side effects aggravated by excessive heat exposure, and the body temperatures of all 14 measured during the early postmortem period fell between 105°F and 109°F (40.6°C and 42.8°C), a range well above normal (“Deadly Heat in U.S. [Texas] Prisons,” 2014). Due to an utter lack of transparency on behalf of the Texas correctional sector, precise statistics regarding heat-related illness and injury are challenging to obtain, but the cumulative health impact of heat on inmates in Texas is believed to be much higher than data figures available to the public.

There is a distinct trend apropos to which demographic groups are overrepresented in the carceral population, a manifestation of the ableism and racism omnipresent in the American criminal justice system. Both the criminal justice system and climate change disproportionately



[Figure 4]

burden low-income people and people of color. Individuals who identify as Black or African American, Indigenous, Hispanic or Latino, Asian, and Native Hawaiian or other Pacific Islander face the greatest increase in mortality rates due to extreme temperatures attributed to global warming (“Climate Change and Social Vulnerability in the United States,” 2021). Race is similarly a potent predictor for incarceration: Black people comprise 13% of the total U.S. population but 38% of the nation’s incarcerated population, while white people constitute a little over 4 times the nation’s population of Black people but share the same percentage of the incarcerated population (see Figure 4) (Sakala, 2014; Sawyer & Wagner, 2022). The penal facilities of Texas follow a parallel trend; according

to the Vera Institute of Justice's 2019 report "Incarceration Trends in Texas", Black or African American people constituted 27% of people in jail and 33% of people in prison but only 13% of state residents ("Incarceration Trends in Texas," 2019). Although race is the strongest factor in forecasting environmental liabilities, low-income communities in both urban, suburban, and rural areas are disproportionately burdened by climate change relative to communities with a higher average socioeconomic status in metrics of exposure, susceptibility, and ability to cope and recover from damage (Islam & Winkel, 2017). Poverty and mass incarceration in the United States follows a similar trend, punishing financially-insecure defendants who cannot afford to post bail bonds; revealingly, data from the Bureau of Justice Statistics (BJS) proves that people in jail ages 23-39 had a median annual income of \$15,109 in 2015 dollars prior to their incarceration, earnings accruing to 48% of the median annual income for non-incarcerated people of similar ages (Rabuy & Kopf, 2015). The transition from community life to incarceration, in other words, perpetuates the pervasive societal injustices of fiscal inequality and environmental racism.

Penitentiary Features & Infrastructure Incompatible with Heat Mitigation

Ostensibly the most objective catalyst of the egregious heat in American correctional facilities is the outdated and unsuitable infrastructure that is neither constructed to withstand nor adapt to long-term shifts in the environment. This dearth in foresight is outlined at length by lawyer Daniel W. E. Holt of the Sabin Center for Climate Change Law at Columbia Law School in his 2015 report, "Heat in U.S. Prisons and Jails" in which he strives to answer the question of how the "...increased temperatures and heat waves caused by climate change [will] affect prisons, jails, and their staff and inmate populations" (Holt, 2015). As Holt recounts, the majority of jails and prisons in the United States were established during the 1970s and 1980s, but

hundreds date back to the mid-1800s when the effects of anthropogenic climate change were even less pronounced (Holt, 2015). These penal institutions overall are designed to last centuries regardless of eventual demands for acclimatization, predominantly taking advantage of heavy and durable heat-retaining materials including stone, cement, brick, and metal, with small and sealed windows thwarting the passage of natural light and fresh air (Holt, 2015). Furthermore, the modern features of air conditioning and ventilation apparatus are faculty or entirely nonexistent in the majority of correctional facilities: at least 13 states in the hottest regions of the country lack universal air conditioning in their prisons, a Prison Policy Initiative report shows, including Alabama, Arizona, Florida, Georgia, Kansas, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Texas, and Virginia (Jones, 2019). Local, state, and even the federal government justify their stagnant endeavors to furnish prisons with HVAC (heating, ventilation, and air conditioning) systems by citing the expensive installation and operating costs, yet at the same time some correctional facilities have covertly invested in air conditioning for warden offices and armories (“Deadly Heat in U.S. [Texas] Prisons,” 2014). Compounded by prisoners’ limited rights, the correctional objective of retribution, and the unbalanced allocation of funds, the federal BOP is reluctant to practice climate resilience by upgrading the living conditions of carceral institutions (Holt, 2015). Professor Laurie L. Levenson addresses this delay in her legal studies paper “Climate Change and the Criminal Justice System” published in 2020 by Loyola Marymount University’s Law School, noting how former president Donald Trump “rolled back Obama-era executive orders designed to address climate change” adaptation plans in federal agencies, and the Biden Administration has not prioritized the criminal justice system as of April 2022 (Levenson, 2020).

Air conditioning, ventilation, and other cooling technologies are especially scarce in Texas' prisons and jails, a reality expanded upon by the creators of the 2014 study, "Deadly Heat in U.S. [Texas] Prisons" from the Human Rights Clinic at the University of Texas School of Law. Correctional facilities in the Lone Star state lag behind other states in regards to heat-mitigating mechanisms, the research team shows; for example, the Arkansas Department of Corrections mandates that "summertime cell temperatures [must]...be between 74°F and 78°F (23.3°C and 25.3°C) and every prison has been air-conditioned since the late 1970s, whereas county jails in North Carolina are "required to have ventilation and air conditioning systems capable of keeping confinement areas at 85°F [(29.4°C)] or below" ("Deadly Heat in U.S. [Texas] Prisons," 2014). The TDCJ is statutorily culpable for delegating temperature guidelines but the current procedures pertain only to inmates' working conditions rather than their living areas ("Deadly Heat in U.S. [Texas] Prisons," 2014). Because of this, prisoners regularly battle temperatures above 100°F according to temperature and heat index logs (*see Appendix VI*) (Brown, 2022). Although inmates can purchase personal fans at TDCJ commissaries for \$22.50, this price is prohibitively expensive to most prisoners, as "many inmates have less than \$5 in their commissary account" ("Deadly Heat in U.S. [Texas] Prisons," 2014). Research conducted by the CDC furthermore concludes that fans used in intensely hot and humid environments do not "protect a person from heatstroke and heat-related illnesses when temperatures...[exceed] 90°F and humidity is above 35%", instead increasing heat stress on the body ("Deadly Heat in U.S. [Texas] Prisons," 2014). The introduction of "Cool-Space" evaporative coolers in 7 of the TDCJ's facilities has likewise proven counterproductive, as the ventilation and mechanical cooling systems contain fans that are too small to properly oxygenate the size of the space and the filters are irregularly cleaned, spreading polluted air and moisture into inmates' living quarters ("Deadly Heat in U.S. [Texas]

Prisons,” 2014). The TDCJ’s reluctance to mitigate the triple-digit temperatures inside penal institutions indicates that the administration is woefully unprepared to tackle the impacts of heat on detainees despite Texas’ ranking as one the most vulnerable states to global warming in the country. Jim Willett, who worked for 30 years at the TDCJ including 8 years as a warden, disclosed his opinion: “I don’t think [inmates] deserve air conditioning...I don’t think it’s too hot. I’ve worked in those cell-blocks for many years, for over a decade...I see absolutely no reason why we should air-condition the prisons in Texas” (Burnett, 2016). Alluding to society’s presumed lack of sympathy for inmates, “The people of Texas don’t want air-conditioned prisons,” said Senate Criminal Justice Committee Chairman John Whitmire back in 2014 (Ward, 2014).

By virtue of their incarceration, inmates lack the ability to practice free-will, receive care and reparations when battling discomfort, and consistently access basic needs, circumstances especially detrimental during heat waves. Even when the interior temperatures of prisons exceed those on the outside, individuals in custody are often barred from freely performing alleviation techniques recommended by public health officials such as taking a cold shower or bath, drinking cold (and clean) water to stay hydrated, and moving to the shade or an air-conditioned room (Jones, 2019). Relief privileges are entirely controlled by on-duty correctional wardens, who maintain full discretion to grant or deprive inmates of reprieve (“Deadly Heat in U.S. [Texas] Prisons,” 2014). For example, the shower policy at TDCJ penitentiaries states that prison officials may grant “additional showers for offenders *when possible*”, subjective word choice that simplifies its misuse (“Deadly Heat in U.S. [Texas] Prisons,” 2014). Correctional officials across the nation allege that ice water, cool-down baths or showers, clothes following a relaxed dress code, and 24-access to respite areas for heat-sensitive individuals remain accessible to inmates,

yet these heat-mitigating methods are accompanied by a host of additional problems; according to filed grievance documents, prison wards are credited with exploiting their powers by using the reduction, confiscation, and outright denial of ice rations, showers, and personal fans as punishment and retaliation (“Reckless Indifference: Deadly Heat in Texas Prisons,” 2015). In addition, while the consumption of ice and cold water prevents heat stroke, inmates complain that correctional officers fill a 5-10 gallon cooler with ice (and sometimes dirt, mosquitos, and other contaminants) one to two times a day intending to serve up to 150 inmates at once (“Reckless Indifference: Deadly Heat in Texas Prisons,” 2015). This degrading and manipulative treatment reflects the omnipresent ideology in correctional and some legislative circles that air conditioning for the prison population is not a human right but a “luxury”, a matter not just of short-term savings but of fulfilling the infamous “they deserve what they get” approach (Motanya & Valera, 2016). Nonetheless, as the Norwegian Correctional Service’s guiding principle of normality states (Bottolfs, 2018):

“Punishment is the restriction of liberty and no other rights have been removed by the sentencing court. Therefore, the sentenced offender has all the same rights as all others who live in Norway. No one shall serve their sentence under stricter circumstances than necessary for the security in the community, and offenders shall be placed in the lowest possible security regime. During the serving of a sentence, life inside should resemble life outside as much as possible.”

Overcrowding as a Barrier to Environmental Risk Management

The debilitating heat inside prisons is associated not only with infrastructural deterioration but the overcrowding of convicted felons. The United States is the world’s leader in incarceration, bearing 25% of the global prison population despite containing only 5% of the overall global population (“Criminal Justice Facts,” n.d.). In fact, over 2.3 million individuals are detained in the nation’s intricate network of state and federal prisons, county jails, juvenile correctional facilities, immigration detention facilities, military prisons, civil commitment

centers, and state psychiatric hospitals (Sawyer & Wagner, 2022). This increase of 500% in the penal population over the last 40 years is not a reflection of a rise in crime rates and the subsequent governmental pursuit to revive public safety, however, but is instead a testament to the modifications in criminal sentencing procedures introduced during the “Tough on Crime” and “War on Drugs” initiatives of the 1970s to 1990s (“Criminal Justice Facts,” n.d.). Draconian penalties for repeat and non-violent offenders through three-strikes-laws, rare application of geriatric parole or “compassionate release”, longer and mandatory minimum sentences, for-profit private prisons, stringent parole and probation boards, laws endorsing police search-and-seizure, creation of pardon-proof sentences, and the replacement of mental health intervention with criminal sentencing have collectively fueled mass incarceration, recidivism, prison overcrowding, and the ageing of the incarcerated population (Flores, 2018).

High population density stresses infrastructure and generates excess heat and humidity as the “number of people in a given enclosed space has a direct impact on the thermal conditions in that space”, reflecting the necessity to revitalize the prison environment through decarceration (Holt, 2015). According to data from state correctional departments and the federal BOP, carceral facilities in 41 states are operating at 75% or more of their rated capacity (Widra, 2020). The BOP explained to Congress in 2015 that correctional facilities are facing “extensive wear and tear, as well as premature deterioration” because incarceration populations exceed the original design capacities, but congressional funding reductions ultimately prevent the BOP from tackling its backlog of 185 modernization and repair projects estimated to cost \$370 million (“FY 2022 Performance Budget,” 2022). This congestion causes poor ventilation, unsanitary living accommodations, inadequate healthcare services, the development and/or spread of communicable and noncommunicable diseases, increased aggression and misconduct, limited programming and

educational opportunities, and reduced visitation for inmates (“Overcrowding and Other Threats to Health and Safety,” n.d.). Exacerbated by detainees’ limited freedom of movement, this heat is not exclusive to inmates’ living quarters: at mealtime, prisoners gather in the notoriously-overpacked “chow halls” surrounded by steam pots and heat lamps (“Deadly Heat in U.S. [Texas] Prisons,” 2014). Anita Mukherjee and Nicholas J. Sanders in the National Bureau of Economic Research’s (NBER) “The Causal Effect of Heat on Violence: Social Implications of Unmitigated Heat Among the Incarcerated” elaborate specifically on the direct relationship between heat and hostile emotions and thoughts, concluding that “[d]ays with unsafe heat index levels...[raise] daily violent interactions by 20% and the probability of any violence by 18%” (Mukherjee & Sanders, 2021). As global warming persists, the lack of endogenous responses to hot weather and overcrowding in correctional institutions will instigate intra-facility aggression in the form of verbal, physical, and sexual abuse, therefore contradicting the correctional goals of rehabilitation and deterrence while also promoting delayed release and recidivism (Mukherjee & Sanders, 2021). This trend is arguably most apt for consideration by the criminal justice system, given that lowering the temperatures in prisons and jails could create a safer and more secure space for both inmates in custody and administrative officers on duty.

The onset of COVID-19 in early 2020 further aggravated prison overcrowding, while epidemiological studies suggest that the populations most at risk to developing heat-related morbidities are likewise the most susceptible to contracting the Coronavirus and enduring the worst of its symptoms (Martinez et al., 2020). Aside from a few exceptions, federal, state, and local correctional sectors dismiss the recommendations of public health organizations such as the American Public Health Association to reduce the prison population as a primary method of virus risk reduction, as demonstrated by the rate of decarceration’s marginal decrease in 2020

and return to pre-pandemic levels by December 2021 (Widra, 2022). The tremendous spikes in Coronavirus cases in penal institutions have killed inmates at a rate double that of the general U.S. population; there are simply too many people behind bars in the country, Emily Widra of the *Prison Policy Initiative* claims, to “accommodate social distancing, effective isolation and quarantine, and the increased health care needs of incarcerated people” (Widra, 2022). The TDCJ ranks #1 in terms of most COVID-19 prison and jail deaths of any system in the country (Deitch et al., 2020). Describing the temperatures inside as an “inferno they cannot escape”, inmates suffering from fevers, shortness of breath, vomiting, chills, body aches, diarrhea, and other symptoms of the virus surrounded by hundreds of other vulnerable detainees have filed grievances and requested transfers to air-conditioned reprieve areas typically without success (McGaughy, 2020). The overcrowding of prisons deficient in climate control becomes a breeding ground for disease and death.

No Rights, No Transparency, No Accountability: The Failing Prison System

A myriad of court cases have involved the Court’s examination of the 8th Amendment in reference to the incarcerated population. In the 2011 case *Brown v. Plata*, the Court affirmed that prison overcrowding in California violated the Constitution because it promoted “unrest and violence”, caused inmates with “latent mental illnesses to worsen and develop overt symptoms”, and resulted in “unsafe and unsanitary conditions that hamper[ed] effective delivery of medical and mental health care” (131 S.Ct. 1910, 2011). The Court in *Wilson v. Seiter*, meanwhile, recognized warmth as an essential human need and suggested that a prison’s failure to provide blankets at night in low-temperature cells could amount to a violation of the 8th Amendment (Holt, 2015). Several cases since then have followed the same logic in regards to prison conditions involving extremely-hot temperatures. In *Smith v. Sullivan*, the Supreme Court held

that relief should be granted under the 8th Amendment “if the proof shows the occurrence of extremes of temperature that are likely to be injurious to inmates’ health” (553 F.2d 373, 5th Cir., 1977). The Fifth Circuit in *Valigura v. Mendoza* remarked that “temperatures consistently in the nineties without remedial measures, such as fans, ice water, and showers, sufficiently increase the probability of death and serious illness” (265 F. App’x 232, 5th Cir., 2008). In December 2013, the United States District Court for the Middle District of Louisiana issued a decision concluding that officials at a death row detention facility subjected inmates to “multiple consecutive days in which the heat index reached well over 100°F” (37.8°C) — levels deemed by the NWS as warranting “extreme caution” and “danger” (“Deadly Heat in U.S. (Texas) Prisons,” 2014). Because the officials were knowledgeable of the risks, the Court held them responsible for exercising “deliberate indifference” in violation of the 8th Amendment (“Deadly Heat in U.S. (Texas) Prisons,” 2014). In TDCJ prisons, inmates are exposed to the same (if not higher) temperatures but the state government has achieved little in regards to enforcing healthy climate standards.

The broken inmate grievance process is a matter of contention among carceral reform advocates. As cofounder of *Look 2 Justice* (an organization devoted to pushing for sentencing policy reform legislation and bringing civic education to system-impacted communities) Christopher Blackwell explains in his 2021 article “The Prison Grievance System Is Broken and Unjust” that grievance coordinators — who are charged solely with responding to inmates’ concerns — often “ignore or...actively block grievances from being filed” by claiming the request is non-grievable, requires a rewrite, or covers too many issues (Blackwell, 2021). Others have distributed “infractions for ‘abusing’ the program as a means to bully prisoners from attempting to...access the grievance process”, and because most are former prison guards or

DOC administrators, their attitudes towards prisoners are typically biased, forging a conflict of interest (Blackwell, 2021). Detainees' formal complaints about excessive heat have confronted similar impediments on behalf of incompetent correctional staff; inmate grievances mention how prison guards often neglect to notify medical staff of incidents (such as evidence of hyperthermia, heat stroke, dehydration, cardiac arrest, or organ failure) or blatantly ignore requests for medical assistance ("Reckless Indifference: Deadly Heat in Texas Prisons," 2015). Inmates who successfully manage to file grievances furthermore risk exposing themselves to retaliation by prison employees, simultaneously deterring other inmates from initiating their grievance process ("Reckless Indifference: Deadly Heat in Texas Prisons," 2015). Retaliation methods in TDCJ penitentiaries, for example, have included the "confiscation of personal property, restriction from access to recreation and common areas...searches of inmates' cells resulting in the destruction...of inmate property...[and] sleep deprivation" ("Reckless Indifference: Deadly Heat in Texas Prisons," 2015). In other words, correctional officers continue to exhibit behaviors in reaction to inmates' heat-related maladies that the Court in *Estelle v. Gamble* characterized as "deliberate indifference" (429 U.S. 97, 1976). Aside from grievances, another method of holding prisons accountable is upholding the constitutional rights of inmates through the Civil Rights of Institutionalized Persons Act of 1980 (CRIPA); this legislation empowers the Civil Rights Division of the U.S Department of Justice (DOJ) to investigate carceral facilities in order to protect inmates by determining whether the conditions violate the 8th Amendment (42 U.S.C. § 1997a). Despite its merits, however, CRIPA has never been implemented by the DOJ to inspect heat conditions in penitentiaries (Holt, 2015).

Intensifying the lack of transparency and subsequent accountability in penal facilities is the censorship or nonexistence of incident reports and post-mortem documents (Skarha et al.,

2020). The “black hole” of medical records, so to speak, describes the fact that although “federal prisons are required to maintain detailed electronic medical records” of incarcerated individuals, most liable facilities do not follow through and instead rely on “haphazard paper system[s] that provide cover for systemic fraud and incompetence” (Veit, 2018). The nonprofit organization Texas Justice Initiative (TJI), generates visual statistics detailing the pertinent information about deaths of inmates in custody based on custodial death reports (*see Appendix VII*) (“Texas Deaths in Custody,” 2022; “Custodial Death Report,” 2017). Limited by their non-governmental status, the TJI does not have a category designated for heat-related mortalities nor any numerical information about non-fatal heat-related morbidities in general (“Texas Deaths in Custody,” 2022). According to the data publicly available, however, 67% of the deaths in Texas custody since 2005 are the result of “natural causes/illness” (“Texas Deaths in Custody,” 2022). Without reliable and credible medical records to reference, researchers, activists, and journalists must cite anecdotal evidence through popular media to sway bureaucratic officers into investigating the complaints, not to mention their relevance to climate change (Veit, 2018).

Conclusions of Existing Research

This literature review focused on how the coalescing issues of racial inequities in public health, heat-related environmental racism, and the overrepresentation of people of color in the criminal justice system magnify the inadequate conditions of correctional facilities and corruptive procedures of penal employees. Previous research in the field recognizes American correctional facilities as corruptive spaces of racial and socioeconomic inequity, and climate change as an environmental issue with disproportionate burdens on communities; uniquely, this analysis has sought to frame excessive heat and humidity in the prison setting as an environmental justice issue in and of itself.

Methodology

In order to ascertain the most significant impacts of excessive heat on the incarcerated population and whether they constitute “cruel and unusual punishment” as enumerated by the 8th Amendment of the United States Constitution, this research project will investigate the Wallace Pack Unit (WPU) men’s prison in Navasota, Texas, and the court case *Cole v. Collier* (4:14-cv-01698) tried at the United States District Court for the Southern District of Texas from 2014 to 2018. Documents accessible to the general public — memorandums, transcripts, orders, or settlements of the class action litigation — sourced from databases including *Civil Rights Litigation Clearinghouse*, *Casetext*, *vLex*, *Climate Case Chart*, *Govinfo.gov*, and *Justia* will be analyzed to understand the catalyzing events, arguments of the Plaintiffs and Defendants, and Judicial resolutions of *Cole v. Collier*. This qualitative and exploratory case study specifically intends to inspect the personal descriptions and court testimonies of WPU inmates seeking injunctive and declaratory relief. The following questions represent the relevant variables by which this case study is framed to answer:

1. *How old (age in years) is the inmate?*
2. *How many years has the inmate been incarcerated?*
3. *Does the inmate have any underlying health conditions? If so, what are they?*
4. *Does the inmate take any medications? If so, what are they?*
5. *Does the inmate report having adverse health effects aggravated by heat? If so, what are they?*

Contingent on available information, the case study additionally seeks to determine the following:

6. *If the inmate has underlying conditions and/or takes medication, are “reasonable accommodations” provided in prison (before, during, and after the trial)?*
7. *What heat mitigation measures and policies has the WPU initiated since the resolution of the trial? Have they been successful in reducing the internal temperatures?*
8. *To what extent are the former Plaintiffs and other inmates at the WPU satisfied with the modifications?*

Case Study of *Cole v. Collier*

A lot of times it gets so hot in our dorms that we have to strip down to our boxers, and we'll just lay on the floor because it's a little bit cooler...than it is trying to sit up in our bunks.”

Keith Cole, inmate at the Wallace Pack Unit

The Wallace Pack Unit (WPU)

Located in Navasota, a city in Grimes County, Texas and in service since 1983, the Wallace Pack Unit (WPU) is a medium-security TDCJ-operated state prison confining non-violent prisoners with disabilities, geriatric prisoners, and prisoners with chronic mental and neurological problems, as well as a select number of inmates who are young and healthy, responsible for working in the “fields or the kitchen, carry[ing] drinking water to the housing areas”, and keeping the facility functioning (4:14-cv-01698, 2017). The penitentiary is labeled a *Type-I Geriatric prison* — it has a single level and wheelchair accommodations — holding approximately 1,450 men and employing about 334 staff-members as of 2014 (4:14-cv-01698, 2017). In addition to a cattle and agricultural farm, a 12-bed infirmary with at least one medical provider always present, an education department, a visitation center, a barber shop, a library, a craft shop, and hallways, the unit contains 3 separate housing units organized “dormitory-style”: the main building, the expansion dormitory, and the trusty camp (4:14-cv-01698, 2017). Several air-conditioned areas are available to

inmates at the WPU albeit with limitations: prisoners are allowed to enter the law library once per week, the education building accommodates a maximum of 30 people and only individuals participating in education

**Outdoor Heat Index at the Pack Unit
Heat Index Highs (2011-2016)**

Year	Number of Days: High Over 100°F	Number of Days: High 90-99°F	Number of Days: High 80-89°F
2011	74	16	1
2012	45	43	2
2013	73	16	3
2014	34	47	9
2015	11	71	9
2016	13	55	13

[Figure 5]

programming, and the visitation center is accessible to inmates once per week and only if and when visitors are present (4:14-cv-01698, 2017). The dorms, meanwhile, have stainless steel tables, exterior walls constructed from metal with a thin layer of insulation, and many windows that remain sealed shut (4:14-cv-01698, 2017). None of these housing complexes are air-conditioned, ventilated, or otherwise climate-controlled, posing a significant risk to inmates given the notoriously-high temperatures of the region (4:14-cv-01698, 2017). Although no heat-related deaths have occurred at the WPU, the nearly two dozen inmates who have succumbed to the lethal temperatures in TDCJ facilities since 1998 were exposed to Heat Indexes of similar measurements (*see Figure 5*) (4:14-cv-01698, 2017).

Hundreds of inmates in custody at the WPU are elderly, suffer from preexisting health conditions and/or disabilities, and take medications causing heat-sensitivity (4:14-cv-01698, 2017). The exact statistics are staggering: as of September 2014, the unit housed 728 inmates with hypertension (high blood pressure), 212 with diabetes, 189 with thyroid dysfunction, 142 with coronary heart disease, 113 with asthma, 111 obese inmates, 84 men with chronic obstructive pulmonary disorder (COPD), 66 inmates took anti-psychotic drugs (such as antihistamines, anticonvulsants, antipsychotics, anticholinergics, beta-blockers, and diuretics), 53 had a psychiatric condition, 22 had cirrhosis of the liver, and an undetermined subset reportedly had a traumatic brain injury (TBI) (4:14-cv-01698, 2017). Indicating the vulnerability of this incarcerated population, for instance, is the fact that according to data from the TDCJ, the WPU boasted the highest number of inmate deaths connected to COVID-19 complications in Texas as of July 2020 (McGaughy, 2020). Moreover, roughly 114 inmates at the time were over the age of 70, 211 inmates were over the age of 65, and roughly half of the men were 50 years of age or

older (4:14-cv-01698, 2017). These numbers convey the detrimental extent to which inmates at WPU are at an increased risk of heat-related illness, injury, or death (4:14-cv-01698, 2017).

Procedure & Testimony

On June 19th, 2014, a group of incarcerated men at the WPU filed lawsuits individually (and on behalf of their fellow inmates) in the United States District Court for the Southern District of Texas, launching what would become a multi-year legal battle (4:14-cv-01698, 2017). These six Plaintiffs included prisoners Keith Cole, Lavar Santee, David Bailey, Jackie Brannum, Marvin Ray Yates, and Nicholas Diaz, who collectively sued Defendant Bryan Collier, the Executive Director of the TDCJ, Robert Herrera, the head warden at the WPU, in addition to the TDCJ network itself (4:14-cv-01698, 2017). The failure of the WPU administration to address the heat and humidity by installing air conditioning equipment or substitute remediation mechanisms, the Plaintiffs alleged, resulted in their “substantial risk of injury or death”, therefore constituting “cruel and unusual punishment” in violation of the 8th Amendment; several of the Plaintiffs furthermore claimed that the TDCJ exhibited “deliberate indifference” by neglecting to institute reasonable accommodations for inmates with disabilities pursuant to the ADA and RA. Overall, the Plaintiffs sought injunctive and declaratory relief (4:14-cv-01698, 2017).

In June 2016, after a four-day evidentiary hearing, the District Court fulfilled the Plaintiffs’ motion for class certification (4:14-cv-01698, 2017). The justices declared a general class and two subclasses (4:14-cv-01698, 2017):

1. **General Class:** *“All inmates who currently are, or in the future will be, incarcerated at the Pack Unit, and who are subjected to TDCJ’s policy and practice of failing to regulate high indoor heat index temperatures in the housing areas.”*
2. **Heat-Sensitive Subclass:** *“All people who are incarcerated at the Pack Unit, or in the future will be, that are subjected to TDCJ’s policy and practice of failing to regulate high indoor heat index temperatures in the housing areas, and either: (1)*

have a physiological condition that places them at increased risk of heat-related illness, injury, or death (including, but not limited to, suffering from obesity, diabetes, hypertension, cardiovascular disease, psychiatric conditions, cirrhosis of the liver, chronic obstructive pulmonary disease, cystic fibrosis, asthma, sweat gland dysfunction, and thyroid dysfunction); or, (2) are prescribed an anticonvulsant, anticholinergic, antipsychotic, antihistamine, antidepressant, beta blocker, or diuretic; or (3) are over age 65.”

3. **Disability Subclass:** *“All people incarcerated at the Pack Unit, or who will be in the future, that are subjected to TDCJ’s policy and practice of failing to regulate high indoor heat index temperatures in the housing areas and suffer from a disability that substantially limits one or more of their major life activities and who are at increased risk of heat-related illness, injury, or death due to their disability or any medical treatment necessary to treat their disability.”*

In the midst of preparing for the class action lawsuit, the Plaintiffs pushed for a preliminary injunction urging the WPU to administer safe drinking water, regularly monitor internal temperatures of dormitories, formally adopt a policy to address heatwave dangers, and amend its policies regarding respite areas (4:14-cv-01698, 2017). After a year of discovery in which it was proven that the drinking water at the WPU “contained between two and four-and-a-half times the amount of arsenic permitted by the EPA”, the Court began the preliminary hearing (4:14-cv-01698, 2017). The testimonies offered by physicians and experts on thermoregulation successfully convinced the Court to order the WPU to provide water compliant with EPA standards; that said, when the Plaintiffs inquired about endorsing the right of every inmate to receive a minimum of three scheduled respite hours per day and ordering the facility to take daily measurements of the temperatures inside the dormitories, the Court declined (4:14-cv-01698, 2017).

In May 2017, the Plaintiffs (including a number of inmates new to the case) filed a motion for a second preliminary injunction (4:14-cv-01698, 2017). Once the Defendants responded, the Court held a nine-day hearing in which the prisoners petitioned for an order to decrease the facility’s internal temperatures to below 88°F (31.1°C) during the summertime and

establish a heat wave policy at the prison (4:14-cv-01698, 2017). As a party, the Plaintiffs contended that sweltering heat at the WPU continues to be “dangerous and damaging to their health” and the current mitigation measures are insufficient, producing unconstitutional conditions of detainment (4:14-cv-01698, 2017). The Plaintiffs proposed their willingness for the TDCJ to organize alternate remediation methods, such as mandating respite opportunities for all hours of the day and night, opening all sealed windows, furnishing the housing areas with portable Power Breezers and IcyBreeze “cooling units” as well as industrial and personal fans, granting access to on-demand showers, monitoring inmates’ water consumption, and requiring medical staff to conduct “wellness checks” for heat-sensitive people (4:14-cv-01698, 2017). Current “wellness checks” conducted by prison staff were in actuality glorified security checks, the Plaintiffs noted, which are wholly irrelevant to the health of inmates and involve the same observational techniques regardless of the season (4:14-cv-01698, 2017). Testimonies further revealed that the current rehabilitation spaces are too small to support the number of inmates at the WPU, and individuals in respite are “often forced to stand, not talk, and move quickly” (4:14-cv-01698, 2017). While the TDCJ’s “Heat Directive” policy lists precautions suggesting the imperativeness of fans and the benefit of opening windows, many of the state’s prison facilities lack electrical outlets for personal fans and/or have windows that are permanently sealed shut (4:14-cv-01698, 2017). Because of these failures, the Plaintiffs reminded the Court that installing HVAC systems in the dormitories is ultimately the only reliable course of action to ensure the constitutional rights of those in custody at the WPU are guaranteed (4:14-cv-01698, 2017).

Despite the persuasive testimony of the Plaintiffs, the Defendants avouched that the revised risk mitigation measures eliminate even the possibility for heat and humidity-related

constitutional violations at the WPU (4:14-cv-01698, 2017). Arguing that the “constant provision of ice water, both industrial and personal fans, cool-down showers, access to respite areas, wellness checks, and the training of both correctional officers and inmates on the recognition of heat-related illnesses have successfully reduced the number of heat-related illnesses”, the Defendants emphasized the fact that only 5 heat-related illnesses have been reported in the unit since 2016 and none in 2017 (though these statistics were perceived with skepticism by the Court) (4:14-cv-01698, 2017). The Defendants further claimed, in direct contradiction to the testimony of the Plaintiffs, that inmates may enter one of the 20 available air-conditioned respite areas for an unlimited amount of time in order to cool down from the heat, and maintain their right to speak (4:14-cv-01698, 2017). Cody Ginsel, the Division Director for the Private Facilities Contract Monitoring Oversight Division, testified that inmates do not access respite because “they choose not to go”, another claim the Court doubted (4:14-cv-01698, 2017). The Defendants elaborated on the TDCJ’s heatwave policy, the Incident Command System (ICS), a national program used by federal agencies to command, control, and coordinate during emergency responses (4:14-cv-01698, 2017). According to Defendant Cody Ginsel, in the event of a heatwave the TDCJ would interact with the ICS command center to determine whether evacuation is necessary; tellingly, none of the other witnesses considered the ICS to constitute a heatwave policy (4:14-cv-01698, 2017). Ginsel additionally mentioned how the TDCJ administration does not always respond to heat advisories because the state operations center “receive[s] pretty much every day in the summer” (4:14-cv-01698, 2017). Finally, the Defendants declared that wellness checks are performed every 30 minutes at the WPU for inmates deemed heat-sensitive, but the meaning of this procedure is ambiguous and carceral employees do not receive standardized written directions for the exercise (4:14-cv-01698, 2017).

The Court heard from a number of expert and fact witnesses, including physicians, environmental scientists, and engineers. Epidemiologist Dr. Michael McGeehin was presented by the Plaintiffs to elaborate on the short and long-term impacts of heat on the human body, the relationship between humidity and perspiration, the four illnesses that can arise from heat stress — heat syncope, heat cramps, heat exhaustion, and heat stroke — and the widespread underreporting of heat-related illnesses; moreover, McGeehin instructed the Court about the populations facing greater susceptibility to these climate-induced illnesses, including individuals with comorbidities, elderly people, and individuals taking certain medications known to interfere with the hypothalamus or the heat regulation mechanisms of perspiration and vasodilation (4:14-cv-01698, 2017). Another expert presented by the Plaintiff party was Dr. Susi Vassallo, who testified that any individual who endures the temperatures in Navasota for a prolonged period of time is inclined to develop heat-related illness, implying that having an underlying condition is not a prerequisite for preserving one's safety in extreme heat (4:14-cv-01698, 2017). Phyllis McWhorter, the manager for the TDCJ's Mental Health Services Liaison and Utilization Review, asserted that medical providers typically lack the power to recommend an inmate's placement in climate-controlled or air-conditioned housing due to a medical condition or medication regimen (4:14-cv-01698, 2017). On the Defendants' side, Dr. Dean Reiger agreed that certain comorbidities interfere with thermoregulation, and claimed the risks at WPU were "quite reasonable" (4:14-cv-01698, 2017). After reviewing over 400 articles about thermoregulation and acclimatation, Dr. Kathryn Means concluded that she found no credible scientific evidence proving that air-conditioning would benefit the offenders at the WPU, though the Court found her testimony biased (4:14-cv-01698, 2017). In one deliberation between the Court and a witness presented by the Defendants, the witness claimed that recent scientific

studies suggest that showers and temporary access to air-conditioning in respite areas are “just as beneficial as working air conditioning” (4:14-cv-01698, 2017). Engineers on the stand communicated the expensive costs of HVAC systems; Ron Brown representing the Plaintiff party, for instance, testified that the “cost of renting, shipping, installing, and running air conditioning units for all of the dormitories” at WPU for just 3 months would be approximately \$108,000 (4:14-cv-01698, 2017). The expert assigned to the Defendant party Frank Traknyak, however, claimed this retrofitting operation would cost upwards of \$2 million (4:14-cv-01698, 2017). During a cross-examination, the Court discredited both estimations, but concluded that Brown’s calculation was more accurate (4:14-cv-01698, 2017). The Court overall recognized that the majority of the Defendant party representatives could not plausibly deny the existence of dangerously-high temperatures at the WPU, instead aiming to demonstrate the TDCJ’s painstaking efforts to lessen the risks.

District Court Judgements

The entire legal procedure included the testimony of the Plaintiffs, the Defendants, 19 witnesses (including 7 expert witnesses), and a Court visitation to the carceral facility (*see Appendix VIII*) (4:14-cv-01698, 2018). According to the case document, there was indeed “little dispute that the heat in the housing areas of the Pack Unit during the summer months could violate Plaintiffs’ constitutional right to conditions of confinement that are free from a substantial risk of serious harm or injury”, and thus the overall intention was to improve the “effectiveness of mitigation measures in reducing that risk to an acceptable level” (4:14-cv-01698, 2018). Keeping in mind the precedent set by *Farmer v. Brennan* that the “Constitution does not mandate comfortable prisons, but neither does it permit inhumane ones”, the Court analyzed whether the

Plaintiffs met the two requirements necessary to establish a violation of the 8th Amendment (4:14-cv-01698, 2018):

1. *The alleged deprivation must be “sufficiently serious”, meaning that Plaintiff(s) were deprived of “the minimal civilized measure of life’s necessities”.*
2. *The Plaintiff(s) must prove that prison officials acted with “deliberate indifference to that known risk”.*

Based on these stipulations, the Court concluded the following (4:14-cv-01698, 2018):

1. *In respite, inmates (especially those with mobility problems) are forced to stand, sit, or move several times to other areas, and prohibited from talking or reading.*
2. *The outdoor heat index at the Wallace Pack Unit (“Pack Unit”) regularly exceeds 100 degrees in the summer, and the conditions within some of the housing units are even hotter.”*
3. *The extreme heat inside and outside the Pack Unit places stress on the human body, causing a risk of illness. This risk, while present for all, is heightened for some—men who are heat-sensitive, with conditions or medication regimes that decrease the body’s ability to regulate temperature.*
4. *The mitigation measures put in place by TDCJ and Pack Unit officials to combat the extreme heat are insufficient to decrease the risk of harm to an acceptable level.*
5. *The conditions of confinement at the Pack Unit violate the Eighth Amendment right to be free from cruel and unusual punishment.*

Based on the memorandum and documents in support of the proposed settlement, the parties’ arguments at the preliminary approval hearing, the filed objections, the parties’ and objectors’ arguments at the final fairness hearing, the remainder of the record, and the relevant law, the United States District Judge Keith P. Ellison ordered the following (4:14-cv-01698, 2018):

1. *Defendants correct the numerous problems with the existing respite program identified by the Court.*
2. *Defendants lower the temperature in the housing areas of heat-sensitive inmates.*
3. *Defendants install window screens, with gauges that block insects, in the windows of the housing areas.*
4. *Defendants develop a heatwave policy for the Pack Unit.*
5. *Defendants propose remedies that conform to the Court’s order within 15 days.*

In May 2018, after nearly 4 years of ongoing litigation, Judge Keith Ellison finalized a settlement proposal that included permanently installing air conditioning inside housing areas of the WPU containing heat-sensitive individuals in order to “maintain indoor heat indices at or

below [88°F (31.1°C)] between April 15 and October 15 each year” (4:14-cv-01698, 2018). The settlement further outlined a classification process to decide which “heat-sensitive offenders will receive one of the limited air-conditioned beds within the TDCJ” and included guidelines for handling malfunctioning cooling equipment (4:14-cv-01698, 2018). Involved in this resolution is the WPU’s addition of 1,157 air-conditioned beds, which is fewer than the number of heat-sensitive inmates (4:14-cv-01698, 2018). The TDCJ agreed to pay the Plaintiff’s counsel \$4,500,000 for attorneys’ fees and expenses (4:14-cv-01698, 2018).

Unfortunately, more than a dozen inmates at the WPU have alleged that carceral officials have retaliated against them for the lawsuit through “various forms of mistreatment...such as running fans in cold weather, writing up frivolous disciplinary violations, and excessively waking people up for wellness checks at night” (4:14-cv-01698, 2018). The TDCJ has also already violated the settlement agreement and “attempted to prevent discovery of the settlement agreement violations by misrepresenting facts to the offenders’ attorneys and the court” (Adair, 2020).



[Figure 6: Aerial View of the Wallace Pack Unit (Chavez, 2017)]

Findings & Analysis

The table below profiles the inmates who served as Plaintiffs in the trial. For the sake of consistency, all time-dependent variables (i.e., age and years incarcerated) reflect the statistics as of July 2017. **Note: some data is labeled “unknown” due to lack of information available.*

Inmate	Age	# of Years Incarcerated	Health Conditions	Medications	Symptoms Aggravated by Heat	Key Testimony
Richard Elvin King	71	28	-high blood pressure -diabetes -obesity -hypertension	-furosemide -carvedilol -hydrochlorothiazide -atenolol -lisinopril -terazosin -metformin -insulin	-difficulty regulating temperature -difficulty sleeping -exhaustion -dizziness -difficult walking -loss of coordination -unable to perform basic tasks -excessive sweating -loss of appetite -loss of energy	-heat in the E Dormitory during the summer is like “walk[ing] out to your car in the middle of the summertime” -stated that mitigation measures (cool-down shower, ice water, respite areas, training about heat-related illness) create temporary relief from the heat
David Bailey	54	unknown	-asthma -hypertension -allergies -TBI -tremors -seizures	-diuretics -antihistamine -benztropine	-severe muscle cramps -extreme fatigue -dizziness -struggles to sweat due to medications -difficulty thinking, concentrating, reading, communicating	-taken to infirmary in the past to treat heat-related illness -prohibited by TDCJ to work in outdoor convict labor or partake in outdoor recreational activities when apparent temperatures are 95°F (35°C) and above, instead forcing him to remain in dorms which are even hotter
Marvin Ray Yates	72	unknown	-hypertension -COPD with emphysema and bronchitis -asthma -diabetes -coronary artery disease -arthritis	-amlodipine -clopidogrel -enalapril -furosemide -pravastatin -metoprolol -albuterol -steroid inhaler -nebulizer	-cannot sweat properly -limited blood flow to skin -impaired blood sugar regulation -cannot lift objects, perform work, walk, or	-stated that he and other inmates will be “much better off” not having to live in unbearable summer heat -believes the use of air-conditioned vehicles for medical transfers will make it safer for him to

Inmate	Age	# of Years Incarcerated	Health Conditions	Medications	Symptoms Aggravated by Heat	Key Testimony
			-cancer survivor -obesity -stents in heart -anxiety	-plavix -antihistamines	stand for extended periods of time -dehydration -difficulty breathing -exhaustion -trouble thinking and concentrating -difficulty sleeping -dizziness -painful muscle cramps -headaches -blurred vision	access medical care outside of facility
Nicholas Diaz	29	unknown*	-born with congenital spinal deformities, including scoliosis and Morquio Syndrome -uses wheelchair for mobility -asthma -chronic pain	unknown*	-difficulty breathing and sleeping	-suffered heat-related injuries in the past
Lavar Santee	37	unknown*	unknown*	unknown*	unknown*	unknown*
Jackie Brannum	63	22	-high blood pressure -Type II diabetes -obesity -schizoaffective disorder -hypertension -high cholesterol -chronic pain -uses a walker	-risperidone -nortriptyline -propranolol -amlodipine -lisinopril -pravastatin -Prozac -carbamazepine -insulin	-dizziness -nausea -lightheadedness -fatigue -fast heart rate -trouble breathing -blurred vision -excessive sweating -severe headaches -dehydration	-compares the heat in his housing area to getting into a hot box in the sun during the summertime -sleeps on concrete floor in the summer because it is cooler than his bunk -poor experiences in respite: forced to stand with nose to wall, couldn't go because it was full, forced to submit core (rectal) temperature reading beforehand
Keith Cole	63	23+	-chronic cardiovascular disease -high blood pressure -high cholesterol -diabetes -coronary arterial	-amlodipine -metoprolol -hydrochlorothiazide -glipizide -hydrochlorothiazide -losartan -atorvastatin -nitrostat "as needed"	-dehydration -struggles to walk, stand, lift, or exert energy -chest pain -fatigue -dizziness -difficulty	-states that conditions have improved slightly since initial filing of lawsuit: ice water is more readily available, cool-down showers more accessible, can access respite areas

Inmate	Age	# of Years Incarcerated	Health Conditions	Medications	Symptoms Aggravated by Heat	Key Testimony
			disease -hypertension -2 stents in body		concentrating, thinking, reading -difficulty breathing -treated for heat exhaustion	-“Power Breeze” machine does nothing to cool the air -tried to spend extra time in air-conditioned infirmary after receiving treatment for his disabilities; nurses encouraged him to stay but warden ordered him to return to his blazing hot dormitory
Dean Anthony Mojica	51	unknown*	unknown*	unknown*	unknown*	unknown*
Michael Denton	39	10 at WPU	n/a	n/a	-headaches -dizziness -extreme perspiration	-requests respite often -told not to speak in the barbershop (respite area) -deterred from using respite at infirmary because of requirement to submit core body temperature measurement (done by taking a rectal temperature) -forced to stand or sit on floor in respite -complained about overcrowded conditions of respite -air conditioning in library stopped blowing cold air
Carlos Huerta	30	3.5	-high blood pressure -obesity	-atenolol	-dizziness -headaches -frustration	-diagnosed with heat exhaustion -complained about time limits in respite areas -complained about inadequate heat mitigation measures -Witnessed collapse of Correctional Officer in dorms on a hot day
Thomas Pennington	52	28	-high blood pressure -diabetes -deep vein	-metoprolol -furosemide	-nausea -feels sick -difficulty breathing	-notes that “Power Breeze” machine does nothing -complains about respite:

Inmate	Age	# of Years Incarcerated	Health Conditions	Medications	Symptoms Aggravated by Heat	Key Testimony
			thrombosis -morbid obesity -sleep apnea -uses Continuous Positive Airway Pressure (CPAP) machine at night			forced to constantly move between areas, stand, and return within 15-20 minutes to hot areas
Fred Wallace	75	unknown*	-obesity -depression -high blood pressure -hypertension -insomnia -uses wheelchair in summer	-Prozac -diphenhydramine -gemfibrozil -lisinopril -terazosin	-unable to perform labor -dizziness -dehydration	unknown*
Ray Wilson	81	unknown*	-COPD -emphysema -chronic bronchitis -coronary artery disease -hypertension -hip replacement due to arthritis -requires walker/wheelchair	-“rescue” inhaler -hydrochlorothiazide -pravastatin -isosorbide -metoprolol -atrovent	-difficulty moving and breathing -developed itchy heat rashes -spotty vision -dehydration	unknown*

The testimonies and Court injunctions of *Cole v. Collier* divulged several trends regarding inmate complaints and correctional management norms that echo the conclusions of previous scholarship: disregard of human rights, corrections officer incompetence, ineffective mitigation measures, and prioritization of heat-sensitive individuals.

1. Disregard of Constitutional Rights

On the most basic level, this case study confirmed the leading hypothesis that unless members of the incarcerated population undergo calculated legal action against the perpetrators of their unsafe conditions of confinement, the criminal justice system catastrophically fails to

uphold inmates' constitutional entitlements to be protected from "cruel and unusual punishment". In other words, despite the founding document's absolutist language (i.e. "shall", "no"), the presumed guarantees are not in actuality automatically enforced inside correctional facilities, an environment intrinsically hidden from the public.

2. Corrections Officer Incompetence

As the testimonial evidence reveals, the incompatibility of retribution with climate change adaptability is not merely an impression of inadequate infrastructure but additionally results from correctional officers' negligent behaviors and "deliberate indifference" to the inmates' disproportionate suffering from extreme heat and humidity. This is evident by the fact that several of the Plaintiffs discussed their futile attempts to take advantage of respite areas. Jackie Brannum, for instance, complained about his experience being forced to stand with his nose to the wall in an overcrowded rehabilitative area despite having a mobility impairment, negating his potential to cool down. Keith Cole similarly noted the staff's nonchalant attitude; when the medical team strongly advised that he should remain in the air-conditioned infirmary to recover from heat-related trauma, the warden on duty ordered his immediate return to the sweltering dormitory. Michael Denton reported his reluctance to request time in respite because of the requirement to submit a core body temperature through a rectal exam, and complained that requests were often denied due to overcrowding in the air-conditioned spaces.

3. Ineffective Mitigation Measures

While some of the Plaintiffs (including Richard King and Keith Cole) acknowledged that increased access to alleviation mechanisms have improved their welfare in custody at least temporarily, most argued that the installation of air conditioning remained the only substantive

solution. The inadequacy of the “Power Breeze” machines was of particular concern to the inmates (*see Figure 7*). As the Defendants’ expert witness Frank Traknyak admitted, these systems “do not cool the housing areas, but instead increase the humidity in an already-humid environment” (4:14-cv-01698, 2017). Inmate Thomas Pennington, in fact, testified that the “Power Breezer” in his dormitory “does nothing to help with the temperature” (4:14-cv-01698, 2017). The Defendants also emphasized their conduction of “wellness checks”, yet the Plaintiffs asserted the reality that these monitoring practices are merely security checks improperly labeled to disguise their true intentions.

4. Prioritization of Heat-Sensitive Individuals

The District Court tasked with hearing *Cole v. Collier* specifically ordered the WPU administration to furnish areas of the facility inhabited by offenders who were more susceptible to heat-related illnesses because of their age, underlying conditions, and medication regimen with air conditioning. In doing so, the Court did not explicitly recognize air conditioning as an entitlement universal to *all* inmates, including those without these characteristics. Inmates deemed ineligible to receive these privileges, such as the young and healthy offenders in custody at the WPU, would therefore continue to face the extreme temperatures and only benefit from climate control when accessing the limited heat-mitigating resources. The implications of this reality are severe: although the Defendants argued that the installation and maintenance of air conditioning systems would be exorbitantly expensive, as Mary Adair eloquently states in her article featured in *St. Mary’s University Law Journal*, “rarely will the argument that costs associated with correcting constitutional violations in the prison system be an adequate defense when offenders are denied their constitutional rights” (Adair, 2020).



[Figure 7: “Power Breezer” machine]

Discussion

This case study of *Cole v. Collier* was successful in validating the association proposed by other scholars between extreme heat in incarcerated settings with the increased risk of heat-related illness, injury, and death especially for elderly detainees, individuals with underlying conditions, and inmates taking particular medications; inherent to the judicial procedure, the methodology also allowed for the inspection of perspectives in opposition to reducing inmates' susceptibility to heat stress. Akin to any study, its design and analysis were not without limitations, however, insinuating the need for further research.

Limitations

1. Sample Size & Selection

Although information about all 13 Plaintiffs involved in the trial was integrated into the study, this sample represents less than 1% of the facility population as a total of 1,450 men were incarcerated at the WPU at the time of the court case. The small number of people both willing and able to participate perhaps indicates a conclusion in and of itself, emphasizing the inmates' great fear of retaliation despite their constitutional right to access the Courts pursuant to the 1st Amendment. Regardless, the parameters of the sample size pose an issue for the reliability of the study.

The sample selection is also problematic due to the fact that the WPU is specifically a Type-I Geriatric prison infrastructurally configured to detain prisoners with disabilities (such as mobility impairments), geriatric prisoners, and prisoners with chronic mental and neurological problems. Excluding those without recorded profiles, *every* subject except Michael Denton suffered from multiple underlying conditions and took several prescription drugs that decreased their tolerance to high temperatures and humidity. This is expected given the Plaintiff's citation

of the ADA and RA, but for the purposes of this study it restricted the ability to investigate the impact of heat on inmates who lack these characteristics but nevertheless maintain the rights guaranteed by the 8th Amendment. In other words, Judge Ellison's resolution proves his belief that the Plaintiffs experienced "cruel and unusual" punishment, but it remains unclear whether the Court would be equally inclined to grant a "preliminary injunction...in memorandum and opinion setting out findings of fact and conclusions of law" if the Plaintiffs were young and healthy (4:14-cv-01698, 2017). This issue promoted a degree of bias, as the subjects' experiences may differ from other WPU inmates or individuals serving time in other TDCJ facilities where the number of at-risk inmates comprises a smaller percentage of the total incarcerated population. A larger, more inclusive sample size would undoubtedly contribute to the generalizability of the research.

2. Scope of Content

Cole v. Collier assumed a public health framework. As this project has demonstrated, excessive heat and humidity have impacts independent of morbidity and mortality. Results of the case study did not contribute to strengthening the link between high temperatures and increased violence and aggression, interpreting the power of heat to intensify preexisting racial and socioeconomic inequalities, and concretely designating heat an environmental justice issue. Moreover, while the court case itself spanned several years, the methodology focused on an isolated event and therefore lacked a longitudinal collection of data; it remains relatively ambiguous as to how the Court injunctions have modified the prison's living conditions in practice, whether inmates are satisfied with the results, and what mitigation measures have been enforced since the settlement was announced in 2018.

3. Data Collection

This case study was also limited because very few court records of *Cole v. Collier* belong to the public domain. Unlike in the case of federal or Supreme Court opinions, the documents and hearings of District Court cases are more likely to be sealed, closed, or available for a monetary fee, hence the existence of the *Public Access to Court Electronic Records* (PACER).

Opportunities for Future Research

Given the limitations of this case study, future research should examine through both cross-sectional and longitudinal analyses the similarities and differences between multiple court cases related to the issue of excessive heat in prison environments of Texas and throughout the American South or other regions disproportionately burdened by anthropogenic climate change. Research should ensure that the sample of subjects is demographically diverse (in terms of age, race, health, gender, socioeconomic background, and age at incarceration) in order to obtain a comprehensive scope and avoid biases. In addition, the court case of *Cole v. Collier* occurred approximately two years prior to the introduction of COVID-19 in the United States; further research should investigate how the installation of air conditioning systems in WPU housing as well as the improvements in respite access and quality have fared during the ongoing pandemic. Finally, the American Federal BOP and local correctional agencies should observe how carceral departments in other countries have remediated the ecological health of prison communities through contingency plans and policies designed to prevent or mitigate dangerously-high temperatures in prisons.

Recommendations

Mass Decarceration

Arguably the most idealistic yet rational recommendation is to reduce the size of the incarcerated population. Strict mandatory minimum sentencing laws should be replaced with more flexible procedures that take into account the situation of the individual offender. Non-violent drug crimes should involve treatment in substance abuse rehabilitation centers rather than assignment to prisons and jails. Penal administrations should prioritize educational and career-oriented initiatives to prevent recidivism and prepare inmates for the return to society. By lowering the number of people behind bars, overcrowding will become a phenomenon of the past, alleviating infrastructural stress and mollifying the warm, stuffy conditions indoors attributed to high population density.

Minimize Inmates' Exposure to Excessive Heat and Promote Heat Acclimatization

Numerous conditions can impede one's capacity to acclimate to heat, as this study has described in detail. Inmates should have unrestricted access to relaxed dress codes (loose-fitting, light-weight, and light-colored), cold or ice water, cold showers or baths, and respite areas, as recommended by the CDC. While installing air conditioning in carceral facilities is the goal, short-term measures in the interim should include the segregation of inmates based on heat sensitivity to ensure those at highest risk are in the coldest areas of the facility and receiving specialized attention by prison staff. That said, allocating funds to invest in reliable HVAC systems for inmate housing will most effectively solve the problems associated with excessive heat and humidity. A mandate should standardize acceptable temperature levels in prisons and jails, prohibiting the internal conditions from surpassing 85°F (29.4°C) and a heat index more serious than the "caution" level; if these guidelines cannot be met, inmates should be relocated

temporarily to an adequate facility. Given that hyperthermia and heat-related deaths are preventable through outreach and intervention, prisons should focus on proactive rather than reactive means. At large, temperature control should be recognized as a human right.

Phase Out Obsolete Penitentiaries & Construct Sustainable and Climate Resilient Institutions

As the climate changes, prison infrastructure deteriorates, and penological theories grow increasingly antiquated, correctional networks should gradually take the penal facilities most vulnerable to global warming out of operation. Meanwhile, state and local governments should take advantage of modern technologies, design styles, and materials to build replacement facilities in areas that are less prone to climate disasters. The National Environmental Policy Act of 1969 (NEPA) “requires federal agencies to consider the environmental impact of proposed federal actions and to prepare environmental impact statements before undertaking actions that are likely to have a significant effect on the environment”; jails and facilities organized by non-federal authorities should follow similar guidelines when developing construction projects, studying “available climate change information, including observations, interpretive assessments, predictive modeling, scenarios, and other empirical evidence” to make decisions (Holt, 2015). New facilities should avoid the use of sealed windows and heat-retaining materials. These structures should be modeled in such a way that reflects the foreseeable and long-term effects of climate change.

Retrofit Existing Correctional Facilities to Maximize Adaptability

The most cost-effective method of lowering temperatures in existing prisons is by way of passive cooling. Growing a layer of vegetation on the rooftop and installing cool or green roofs, green walls, and awnings would collectively “save money on energy bills, lower peak energy

demands, and reduce air pollution and greenhouse gas emissions” (Adair, 2020). Green roofs tend to have longer lifespans than traditional roofs, “provid[ing] shade, remov[ing] heat from the air, and reduc[ing] temperatures of the roof surface and surrounding air” (Adair, 2020). Cool roofs, meanwhile, function by “reflecting solar energy away from a building” and in turn rejecting the heat absorbed from the sun (Holt, 2015). Both cool and green roofs can be “augmented with photovoltaic systems to generate electricity”, cutting electrical bills dramatically and allowing prisons to use mechanical air conditioning when absolutely necessary (Holt, 2015). Whereas furnishing prisons with electrical fans or mechanical air-conditioning systems is relatively straightforward, the apparatus are not only expensive to install and operate but consume high amounts of energy which results in climate change-inducing carbon emissions that were responsible for raising the global average temperature in the first place. Growing plants on the rooftop or in front of windows creates shade and benefits from the process of evapotranspiration, the “cooling effect of evaporation from soil...combined with the movement of water” through a seedling (Holt, 2015). Overall, whereas building new facilities or installing HVAC systems is a major financial undertaking, passive cooling mechanisms are a fiscally-responsible alternative for correctional facilities to consider.

Establish “Heat Monitoring Committees”

In order to ensure that heat mitigation methods in penal institutions are enforced, state and local correctional networks should organize “Heat Monitoring Committees” comprised of (unbiased) scientists and public health officials whose job duties include the verification of heat compliance measures on behalf of penal employees, conduction of regular (once a month) jail and prison inspections, creation and distribution of guidelines for climate change adaptation plans, reporting of results to national governmental public health organizations (such as the CDC

and the United States Department of Health and Human Services [HHS]), and training of prison staff to recognize signs of heat-related emergencies and understand medication side-effects. This oversight and accountability strategy should include provisions outlining the punishment of correctional employees who fail to abide by the rules set forth by the committees.

Streamline Inmates' Filing of Grievances

Individuals in custody who experience poor conditions as a result of unsafe heat and humidity should receive a comprehensive and impartial investigation by a nonpartisan investigator (perhaps a member of the "Heat Monitoring Committee") of the facility. Government officials and other overseeing bodies should ensure that prisoners are protected from retaliation perpetrated by carceral employees, as specified in the United Nations' Convention Against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment (CAT). Inmates should become able to file grievances anonymously. Grievance reports and timelines should be publicly accessible online in order to foster a transparent and accountable system.

Adopt a United Nations Approach to Human Rights Enforcement

The criminal justice system as a whole should integrate the ideologies shaping United Nations' resolutions, such as the Universal Declaration of Human Rights (UDHR); the Convention against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment (CAT); and the Standard Minimum Rules for the Treatment of Prisoners (SMRs). While these agreements are not legally enforceable, correctional facilities should take into consideration their profound merits when punishing or interacting with offenders.

Conclusion

“It is not the prisoners that need reformation. It is the prisons.”

Oscar Wilde

This study supplements an expanding canon of scholarship and political activism devoted to elucidating the relative powerlessness of prisoners to exercise their constitutional rights and condemning the philosophy that retributive justice is both moral and constructive. The review of existing literature proved that the negative impacts of heat on human beings are amplified in the prison environment due to the standards of corrections techniques and tangible construction of penal institutions. Testimonial evidence in the case study of *Cole v. Collier* conveyed how the issue does not emanate from a dearth in knowledge of heat-related risks, but rather a conscious deprivation of remedial actions on behalf of prison employees. Analyzing the intersection of climate and heat, heat and disproportionate health and safety outcomes, and mass incarceration and climate injustice, this research implies the urgent need for collaboration between criminal justice officials, climatologists, and environmental justice advocates to enhance the infrastructural and social conditions of correctional facilities in congruence with the fluctuating climate. By taking into consideration the internal prison environment, criminal justice reform measures can mitigate the risks that inmates face 24/7, seven days a week.



[Figure 8: Entrance to the Wallace Pack Unit (Banks, 2017)]

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Appendix

I. Reported Inmate Deaths in TDCJ Facilities Since 1998

Name	Age	Prison	Date of Death	Body Temp.	TDCJ Region	Facts
Archie White	48	Robertson	June 29, 1998	104.2	V	Obese, hypertensive, schizophrenic, prescribed tricyclic antidepressants and other medications known to increase risk of heat-stroke
Anselmo Lopez	41	Eastham	July 14, 1998	Unk	I	Prescribed psychotropic medications for schizophrenia
James Moore	47	Unk	July 30, 1998	104.1	Unk	History of paranoid schizophrenia and hypertension, prescribed psychotropic medications, beta-blockers and diuretics
Charles Finke, Jr.	38	Huntsville	Aug. 8, 1999	106	I	Prescribed anti-depressants, recently arrived from air-conditioned facility
John Cardwell	39	Allred	Aug. 4, 2001	108.5	V	Prescribed diuretics and psychotropics, spent 2 weeks in ICU, recently arrived
Ricky Robertson	37	Darrington	July 16, 2004	108	III	Bipolar with depression, prescribed psychotropic medications,
James Shriver	47	Byrd	Aug. 8, 2007	Unk	I	History of hypertension, prescribed psychotropics
Dionicia Robles	54	Byrd	Aug. 13, 2007	Unk.	I	Prescribed psychotropics, incarcerated less than one month
Douglas Hudson	62	Gurney	July 25, 2011	105	II	History of hypertension, prescribed medication "known to interfere with heat dissipation," died after 5 days
Larry McCollum	58	Hutchins	July 28, 2011	109.4	II	Diabetic, prescribed diuretic, found 2:00 am, died 1 week after arrival
Thomas Meyers	46	Coffield	Aug. 3, 2011	105.6	II	History of hypertension, prescribed psychotropics
Robert Webb	50	Hodge	Aug. 4, 2011	Unk.	II	Developmentally disabled, prescribed psychotropics, found unresponsive 3:30 am
Alexander Togonidze	44	Michael	Aug. 8, 2011	106+	II	Diabetic, prescribed psychotropics, previously complained of heat-related illnesses, collapsed 8:00 am
Charles Cook	53	Hodge	Aug. 8, 2011	107.9	II	Developmentally disabled, prescribed psychotropics, found unresponsive at 3:00 am
Michael Martone	57	Huntsville	Aug. 8, 2011	106.5	I	Prescribed psychotropics
Kelly Marcus	36	Connally	Aug. 12, 2011	Unk.	IV	Obese, prescribed diuretic, found 3:30 am
Kenneth Wayne James	52	Gurney	Aug. 13, 2011	108	II	Prescribed diuretic, died 3 days after arrival
Daniel Alvarado	44	Beto	Aug. 20, 2011	105.2	II	HIV+, prescribed psychotropics, found unresponsive at 9:20 am, incarcerated nine days
Rodney Adams	45	Gurney	Aug. 3, 2012	109.9	II	Prescribed psychotropics, died 1 day after arrival
Albert Hinojosa	44	Garza West	Aug. 27, 2012	Unk.	IV	Died at transfer facility shortly after arrival, found after midnight

II. Glossary of Key Terms

Acclimatization

beneficial physiological adaptations that occur during repeated exposure to a hot environment, including increased sweating efficiency, stabilization of circulation, ability to perform work with lower core temperature and heart rate, and increased skin blood flow at a given core temperature (“Acclimatization,” 2018).

Bill of Rights

first 10 amendments to the United States Constitution, adopted in 1791 as a single unit; guarantees the individual rights of people and institutes limitations on federal and state governments

Class Certification

first steps to achieving a class action lawsuit; plaintiffs and their attorneys must prove to the Court that certain requirements have been met

Climate Change

“change in climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods” (*Intergovernmental Panel on Climate Change*)

Climate Resilience

“the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate” (*Center for Climate and Energy Solutions*)

Compassionate Release

process by which inmates in criminal justice systems may become eligible for immediate early release based on medical or humanitarian changes rather than behavior or sentencing; also known as medical release, medical parole, medical furlough, or humanitarian parole; not available in all states or regions

Convention Against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment (CAT)

adopted by the UN General Assembly in 1984; prohibits acts of torture (defined as “any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person”) in the territories of its signatory parties

Environmental Justice (EJ)

“the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” (*EPA*)

Environmental Racism

the disproportionate impact of environmental hazards on people of color

Evidentiary Hearing

also known as a preliminary hearing or probable cause hearing; a proceeding following a filed complaint to determine whether a trial is required

Discovery

pretrial procedure of civil lawsuits in which parties gather information and evidence in preparation for trial

Geriatric Parole

process by which inmates in criminal justice systems who are 60 years of age or older and have been incarcerated at least 25 years on their current sentences will be referred to the Board of Parole Hearings (BPH) to determine suitability for parole; not available in all states or regions

Global Warming

long-term heating of Earth’s climate system due to human activities which increase heat-trapping greenhouse gas levels in Earth’s atmosphere

Greenhouse Effect

natural process that warms the Earth’s surface; occurs when heat from the Sun is trapped by greenhouse gas in the atmosphere

Greenhouse Gas

gas generated either by human activities (such as energy consumption and transportation emissions) or natural phenomena that is released into the air and trapped in the ozone layer, absorbing the sun’s radiation and in turn increasing atmospheric temperatures and changing weather patterns to create the “greenhouse effect” (*EPA*)

Grievance

complaint due to an injury, violation, misinterpretation, or misapplication of any law, rule, or regulation that may or may not be justified

Heat Index

measure of how hot it feels to the human body when relative humidity is factored in with the actual air temperature; also known as “apparent temperature”

Heating, Ventilation, and Air Conditioning (HVAC)

technological systems used to move air between indoor and outdoor areas in order to cool or heat residential and commercial buildings

Heatwave

period of abnormally hot weather accompanied by humidity that typically lasts for two or more days (and usually several weeks); gauged relative to the average climate patterns of the area and for the season (“During A Heat Wave,” n.d.)

Hyperthermia

“abnormally high body temperature caused by a failure of the heat-regulating mechanisms of the body to deal with the heat coming from the environment” (*NIH*)

International Covenant on Civil and Political Rights (ICCPR)

seminal document in the history of human rights adopted by the General Assembly in 1966; requires states parties to uphold the civil and political rights of individuals, such as the right to life, freedom of religion, freedom of speech, freedom of assembly, electoral rights, and the right to due process

Intersectionality

coined by civil rights advocate and professor Kimberlé Crenshaw in 1989; a framework that acknowledges how “systems of inequality based on gender, race, ethnicity, sexual orientation, gender identity, disability, class and other forms of discrimination ‘intersect’ to create unique dynamics and effects” rooted in power and privilege (*Center for Intersectional Justice*)

Rated Capacity

number of beds or inmates assigned by a rating official to institutions within a jurisdiction based on architectural design and construction

Rule 702

federal rule allowing for Testimony By Expert Witnesses

Thermoregulation

process of homeostasis in which the body maintains a core internal temperature around 98.6°F using various heating and cooling mechanisms

Three-Strikes-Law

structure of criminal sentence “in which significantly harsher punishments are imposed on repeated offenders” and typically “mandates a life sentence for the third violation of violent felonies” (“Three Strikes,” 2021)

United Nations’ Convention against Torture and Other Cruel, Inhuman, or Degrading Treatment or Punishment (CAT)

international human rights treaty that requires its signatory parties to adopt measures to end and criminalize acts of torture within their territorial jurisdiction

United Nations’ Declaration of Human Rights (UDHR)

milestone document created by the UN General Assembly in 1948 that establishes fundamental human rights and freedoms; not legally enforceable

United Nations’ Standard Minimum Rules for the Treatment of Prisoners (SMRs) (the Nelson Mandela Rules)

human rights document adopted by the UN General Assembly in 2015; provides guidelines for the treatment of individuals in custody

Urban Heat Island

metropolitan area which is significantly warmer than its surroundings (“Urban Heat Islands,” n.d.).

Writ of Habeas Corpus

“that you have the body” in Latin; order used by federal courts to determine the validity and lawfulness of a state’s detention of a prisoner

III. Relevant Constitutional & Legal Provisions

Americans with Disabilities Act (ADA) of 1990 [42 U.S.C. ch. 126 § 12101 et seq]

Title II: “[N]o qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.”

Civil Rights of Institutionalized Persons Act (CRIPA) of 1980 [42 U.S.C. § 1997a]

statute that protects institutionalized people from systemic violations of their federal rights; authorizes the U.S. Attorney General to investigate conditions of confinement at State and local government institutions such as prisons, jails, pretrial detention centers, juvenile correctional facilities, publicly operated nursing homes, and institutions for people with psychiatric or developmental disabilities

Prison Litigation Reform Act (PLRA) of 1996 [42 U.S.C. § 1997e]

federal law that makes it more difficult for prisoners to file lawsuits in federal court; designed to decrease the incidence of litigation within the court system

Rehabilitation Act (RA) of 1973 [29 U.S.C. § 701 et seq]

Section 504: “No otherwise qualified individual with a disability in the United States...shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency...”

Writ of Habeas Corpus & the Suspension Clause (Article I, Section 9, Clause 2)

“The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.”

1st Amendment to the United States Constitution

“Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.”

4th Amendment to the United States Constitution

“The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”

8th Amendment to the United States Constitution

“Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.”

26th Amendment to the United States Constitution

Section 1: “The right of citizens of the United States, who are eighteen years of age or older, to vote shall not be denied or abridged by the United States or by any State on account of age.”

IV. Relevant Course Cases

Brown v. Plata, 563 U.S. 493 (2011).

Cole v. Collier, 4:14-cv-01698 (2016).

Estelle v. Gamble, 429 U.S. 97 (1976).

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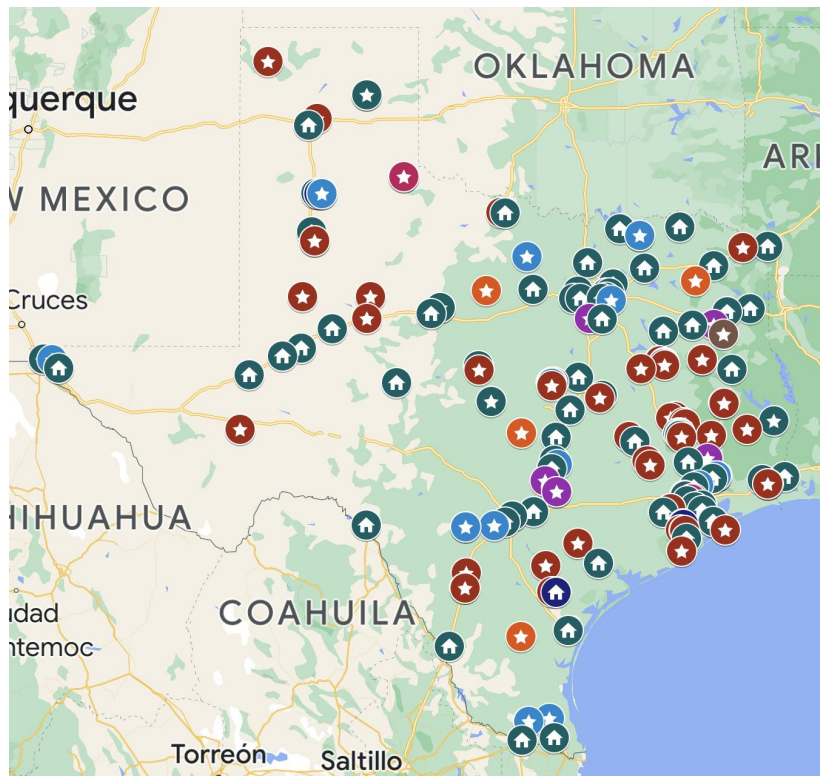
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Wilson v. Seiter, 501 U.S. 294 (1991).

V. Map of TDCJ Facilities



VI. TDCJ Temperature Log (Coffield Unit)

TEXAS DEPARTMENT OF CRIMINAL JUSTICE
24 hour Temperature Log

Unit: Coffield Unit

Date: 7-22-18

	Outside Air Temperature	Humidity or Wind Speed	Heat Index or Wind Chill	Person Recording
6:30 a.m.	79°	83% 5 mph	82°	Suenson
7:30 a.m.	79°	84% 6	82°	Suenson
8:30 a.m.	83°	80% 5	91°	Suenson
9:30 a.m.	87°	71% 9	98°	Suenson
10:30 a.m.	92°	63% 8	107°	Suenson
11:30 a.m.	96°	53% 8	113° cat 3	Suenson ROSS
12:30 p.m.	104°	44% 7	123° cat 3	ROSS
1:30 p.m.	105°	41% 7	123° cat 3	ROSS
2:30 p.m.	110°	34% 3	127° cat 3	ROSS
3:30 p.m.	110°	33% 5	126° cat 3	ROSS
4:30 p.m.	110°	33% 5	126° cat 3	ROSS
5:30 p.m.	110°	33% 5	126° cat 3	ROSS
6:30 p.m.	110°	33% 4	126° cat 3	Corbett
7:30 p.m.	110°	33% 4	126° cat 3	Corbett
8:30 p.m.	110°	33% 4	126° cat 3	Corbett ?
9:30 p.m.	110°	33% 4	126° cat 3	Corbett
10:30 p.m.	104 94°	46%	98°	Corbett
11:30 p.m.	92°	45%	97°	Wemple
12:30 a.m.	89	40%	90°	Wemple
1:30 a.m.	83°	70%	88	Wemple
2:30 a.m.	82°	72%	87°	Wemple
3:30 a.m.	80°	75%	84°	Wemple
4:30 a.m.	78°	81%	80	Wemple
5:30 a.m.	77°	86%	78°	Wemple

* Temperatures and Wind Chill Index/Heat Index to be announced over the radio
 ** Temperatures between 51 and 69 degrees Fahrenheit (°F) are not represented on the Wind Chill Index (Attachment A) or the Heat and Humidity Matrix (Attachment B). Indicate (N/A) in these fields when applicable.

8/1/18

VII. Custodial Death Report Form



CUSTODIAL DEATH REPORT

For reporting requirements and procedures, see Section 39.05 of the Penal Code, Article 49.18(b) (c) of the Code Criminal Procedure and Article 501.055(b) of the Government Code.

Section 39.05 Failure to Report Death of Prisoner:

- (a) A person commits an offense if the person is required to conduct an investigation and file a report by Article 49.18 Code of Criminal Procedure, and the person fails to investigate the death, fails to file the report as required, or fails to include in a filed report facts known or discovered in the investigation.
- (b) A person commits an offense if the person is required by Section 501.055 Government Code, to:
 - (1) give notice of the death of an inmate and the person fails to give the notice; or
 - (2) conduct an investigation and file a report and the person:
 - (A) fails to conduct the investigation or file the report, or
 - (B) fails to include in the report facts known to the person or discovered by the person in the investigation.
- (c) An offense under this section is a Class B misdemeanor.

Article 49.18(a) (b) (c) (d). Death in Custody

- (a) If a person confined in a penal institution dies, the sheriff or other person in charge of the penal institution shall as soon as practicable inform the justice of the peace of the precinct where the penal institution is located of the death.
- (b) If a person dies while in the custody of a peace officer or as a result of a peace officer's use of force or if a person incarcerated in a jail, correctional facility, or state juvenile facility dies, the director of the law enforcement agency of which the officer is a member or of the facility in which the person was incarcerated shall investigate the death and file a written report of the cause of death with the attorney general no later than the 30th day after the date on which the person in custody or the incarcerated person died. The attorney general shall make a good faith effort to obtain all facts relevant to the death and include those facts in the report. The attorney general shall make the report, with the exception of any portion of the report that the attorney general determines is privileged, available to any interested person.
- (c) Subsection (a) does not apply to a death that occurs in a facility operated by or under contract with the Texas Department of Criminal Justice. Subsection (b) does not apply to a death that occurs in a facility operated by or under contract with the Texas Department of Criminal Justice if the death occurs under circumstances described by Section 501.055(b)(2), Government Code.
- (d) In this article:
 - (1) "Correctional facility" means a confinement facility or halfway house operated by or under contract with any division of the Texas Department of Criminal Justice.
 - (2) "In the custody of a peace officer" means:
 - (A) under arrest by a peace officer, or
 - (B) under the physical control or restraint of a police officer.
 - (3) "State juvenile facility" means any facility or halfway house
 - (A) operated by or under contract with the Texas Youth Commission; or
 - (B) described by Section 51.02(13) or (14), Family Code

File Online at <https://oagtx.force.com/cdr/login>

OR Mail to: Office of the Attorney General, Criminal Prosecutions Division, P.O. Box 12548, Austin, TX 78711-2548, (512)463-2170

DATE OF REPORT _____

1. AGENCY/FACILITY INFORMATION:

Name of Agency/Facility _____

Address _____

City _____ Zip Code _____

Telephone Number _____

Signature of Director of Agency/Facility (Required) _____

Name of Person Filling Out Form _____

Email of Person Filling Out Form _____

2. IDENTITY OF DECEASED:

First Name _____

Middle Name _____

Last Name _____

Suffix _____

3. WHAT WAS THE DECEDENT'S SEX?

Male Female

4. WHAT WAS THE DECEDENT'S DATE OF BIRTH? (DOB)

Month _____ Day _____ Year _____

Age at time of death _____

5. WHAT WAS THE DECEDENT'S RACE (MARK ONLY ONE)

- American Indian Black or African American
or Alaska Native Hispanic or Latino
 Anglo or White Other
 Asian or Pacific Islander Unknown

6. DATE/TIME OF CUSTODY (ARREST / INCARCERATION) OR INCIDENT:

Month _____ Day _____ Year _____

TIME: Hour _____ Min _____ AM PM

7. DATE/TIME OF DEATH:

Month _____ Day _____ Year _____

TIME: Hour _____ Min _____ AM PM

8. HAS A MEDICAL EXAMINER OR CORONER CONDUCTED AN EVALUATION TO DETERMINE A CAUSE OF DEATH?

- Yes, results are available
 Yes, results are pending
 No, evaluation not planned

9. WHAT WAS THE MANNER OF DEATH? (MARK ONLY ONE)

- Accidental
 Alcohol/Drug intoxication
 Homicide (includes Justifiable Homicide)
 Natural
 Suicide
 Could not be determined
 Pending autopsy results
 Other, specify _____

10. MEDICAL CAUSE OF DEATH:

11. HAD THE DECEDENT BEEN RECEIVING TREATMENT FOR THE MEDICAL CONDITION THAT CAUSED THE DEATH AFTER ADMISSION TO YOUR JAIL'S JURISDICTION?

- Yes Unknown
 No Not applicable

12. IF DEATH WAS AN ACCIDENT, HOMICIDE OR SUICIDE, WHO CAUSED THE DEATH?

- Law enforcement/correctional personnel
 Decedent
 Other civilian(s)
 Other detainee(s)
 Unknown person(s) caused the injury
 Not Applicable
 Unknown whether decedent sustained a fatal injury

13. IF A WEAPON CAUSED THE DEATH, WHAT TYPE OF WEAPON CAUSED THE DEATH? (MARK ALL THAT APPLY)

- Handgun
 Rifle/shotgun
 Firearm, unspecified
 Conducted energy device (e.g. Taser)
 Knife/edged instrument
 Baton/blunt instrument
 Other Weapon, specify: _____
 Vehicle-involved death
 Not Applicable (weapon or vehicle did not cause death)
 Unknown

14. WAS THE CAUSE OF DEATH THE RESULT OF A PRE-EXISTING MEDICAL CONDITION OR DID THE DECEDENT DEVELOP THE CONDITION AFTER ADMISSION

- Pre-existing medical condition
 Deceased developed condition after admission
 Could not be determined
 Not applicable, cause of death was accidental injury, intoxication, suicide or homicide

15. IF DEATH WAS AN ACCIDENT, HOMICIDE OR SUICIDE, WHAT WAS THE MEANS OF DEATH?

- Firearm
- Baton / blunt instrument
- Knife / edged instrument
- Hanging, strangulation
- Drug overdose
- Vehicle accident
- Not applicable, cause of death was illness/natural cause.
- Unknown
- Other, specify _____

16. WHERE DID THE EVENT CAUSING THE DEATH OCCUR?

Street address _____
City _____
County _____ Zip _____

17. WHAT LOCATION CATEGORY BEST DESCRIBES WHERE THE EVENT CAUSING THE DEATH OCCURRED?

- Residence/Home Roadway/highway/street/sidewalk
- Law Enforcement Facility Parking lot/garage
- Business Field/woods/lake/waterway/beach
- Other, specify _____

18. WHAT TYPE OF CUSTODY/FACILITY WAS THE DECEDED IN AT THE TIME OF DEATH:

- Pre-custodial use of force Municipal Jail
- Police Custody (pre-booking) Penitentiary
- County Jail Private Facility

19. SPECIFIC TYPE OF CUSTODY/FACILITY:

- Custody of Law Enforcement Personnel during/fleeing arrest
- Custody of Law Enforcement Personnel subsequent to arrest
- TDCJ – Specify Unit _____
- Jail – single cell
- Jail – detox cell
- Jail – multiple occupancy cell
- Jail – holding cell
- Jail – day room/recreation area
- Correctional/Rehabilitation Facility
- Hospital/Infirmary
- Halfway House/Restitution Center
- Non-law enforcement detox facility – specify _____
- Texas Juvenile Justice Department – Facility/Detention Center – specify _____
- N/A

20. WHAT WAS THE TIME AND DATE OF THE DECEASED'S ENTRY INTO THE LAW ENFORCEMENT FACILITY WHERE THE DEATH OCCURRED?

Not applicable
Month _____ Day _____ Year _____
TIME: Hour _____ Min _____ AM PM

21. WHERE DID THE DEATH OCCUR? (MARK ONLY ONE)

- Scene of incident
- En route to booking center/police lockup
- Dead on arrival at medical facility
- Medical facility
- Law enforcement facility/booking center
- Elsewhere, specify _____

22. DID ANY OTHER LAW ENFORCEMENT AGENCIES RESPOND TO CALLS FOR SERVICE RELATED TO THIS INCIDENT?

Yes No

23. WHAT WERE THE MOST SERIOUS OFFENSE(S) WITH WHICH THE DECEDED WAS (OR WOULD HAVE BEEN) CHARGED WITH AT THE TIME OF DEATH?

1. _____
2. _____
3. _____

WERE THE CHARGES:

- Filed
- Convicted
- A probation/parole violation
- Not filed at time of death

WHAT WERE THE TYPES OF CHARGES OR REASON FOR CONTACT?

- Violent Crime Against Persons
- Crimes Against Child(ren)
- Crime Against Property
- Alcohol / Drug Offense
- Medical / Mental Health Assistance Call
- Other, specify _____

29. ATTACH A SUMMARY OF HOW THE DEATH OCCURRED:

VIII. Parties in *Cole v. Collier*

Name	Party	Role
Keith Cole	Plaintiff	Inmate at WPU
David Bailey	Plaintiff	Inmate at WPU
Marvin Ray Yates	Plaintiff	Inmate at WPU
Nicholas Diaz	Plaintiff	Inmate at WPU
Lavar Santee	Plaintiff	Inmate at WPU
Dean Anthony Mojica	Plaintiff	Inmate at WPU
Jackie Brannum	Plaintiff	Inmate at WPU
Richard Elvin King	Plaintiff	Inmate at WPU
Michael Denton	Plaintiff	Inmate at WPU
Ray Wilson	Plaintiff	Inmate at WPU
Carlos Huerta	Plaintiff	Inmate at WPU
Thomas Pennington	Plaintiff	Inmate at WPU
Fred Wallace	Plaintiff	Inmate at WPU
Bryan Collier	Defendant	Executive Director of TDCJ
Brad Livingston	Defendant	Executive Director of TDCJ
Robert Herrera	Defendant	Warden of WPU
TDCJ	Defendant	correctional department of Texas
LaMorris Marshall	n/a	Captain of correctional officers at the Wallace Pack Unit
Cody Ginsel	n/a	Deputy Director of Management Operations in the Correctional Institutions Division of TDCJ Division Director for the Private Facilities Contract Monitoring Oversight Division
Kim Ferguson	n/a	Director of Maintenance in the Facilities Department of TDCJ
Eldon Vail	Testified for Plaintiffs under Rule 702	former correctional officer, deputy director, and head of agency
Dr. Susi Vassallo	Testified for Plaintiffs under Rule 702	practicing physician and specialist in thermoregulation
Dr. Michael McGeehin	Testified for Plaintiffs under Rule 702	Director of the Division of Environmental Hazards and Health Effects at the CDC, epidemiologist
Dr. Dean Rieger	Testified for Defendants under Rule 702	medical director at correctional facilities
Dr. Kathryn Means	Testified for Defendants under Rule 702	geriatric primary care physician; works for TDCJ as a consulting physician in

Name	Party	Role
		the Health Services Division
Phyllis McWhorter	n/a	registered nurse and manager for TDCJ's Mental Health Services Liaison and Utilization Review
Ron Brown	Testified for Plaintiffs under Rule 702	mechanical engineer specializing in air conditioning systems
Frank Traknyak	Testified for Defendants under Rule 702	owner of Trak Engineering
Dr. Michael Honeycutt	n/a	Director of the Toxicology Division of the Texas Commission on Environmental Quality (TCEQ)
Dr. Heidi Bojes	Testified for Defendants under Rule 702	Director of Environmental Epidemiology Disease Registry Section of the Texas Department of State Health Services
Bryan Carney	n/a	project engineer at TDCJ