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“MONEY FLOWS LIKE WATER, IT’S REALLY HARD TO STOP:” URBAN GREENING, ECONOMIC DEVELOPMENT, AND THE GROWTH MACHINE IN LEGACY CITIES

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Abstract

Parks, green infrastructure, and green amenities are often developed in cities because of their multiple co-benefits for the environment and resident health. In the face of global climate change, these green investments can help offset warmer temperatures, heavier precipitation events, and contribute to creating more sustainable urban spaces. However, members of the political and social elite operationalize greening in their cities for economic development. In addition, new green amenities are viewed favorably and can be a tool for attracting new residents, further stimulating economic growth. Although this green growth has been criticized for spurring gentrification and displacement of residents, often legacy cities are theorized as being places of opportunity for greening without gentrifying. However, this dissertation argues that the ways race and racialization shape economic development decisions in urban space means communities of color are differently valued in development decisions, further exacerbating inequality and ultimately leading to gentrification and displacement. This dissertation comprises a critical discourse analysis of three legacy cities – post-industrial cities which have experienced significant economic and population decline – in the United States: Detroit, Michigan, Cincinnati, Ohio, and Providence, Rhode Island. This work analyzes newspaper articles, climate adaptation, sustainability, and parks plans, and interviews with city employees to assess the influence of racial capitalism on urban greening and economic development in legacy cities. This dissertation argues that while these cities claim to pursue equitable climate adaptation and investment in urban parks, in reality these investments are used to create a specific image for each city—tailored to upper-class white residents. Even when cities do claim to prioritize equity, they center economic growth via urban greening and further exacerbate inequity in the process. At the same time, desires and needs of existing residents are often overlooked or ignored. This

inequitable development of urban green amenities, or the development of such amenities to attract new, wealthier residents, stems from a devaluation of Black lives in urban space.

Chapter 1: Introduction and Literature Review

Cities and Climate Change

The effects of climate change already have significant impacts in cities across the United States (Marvel et al., 2023). From more intense precipitation (Payton et al., 2023), to higher temperatures (Chapman et al., 2017; Gabbe et al., 2024), and air quality issues (West et al., 2023), cities are grappling with the outcomes of a warming climate. Climate change impacts are felt unevenly across cities, because underlying inequalities and injustices in society marginalize certain races and ethnicities, as well as people with lower incomes (Atrey, 2023; Avtar et al., 2023; Parsons et al., 2025; Thomas et al., 2019). Specifically, people of color in the United States tend to have lower rates of employment, less wealth, less education, and lower quality neighborhood environments due to longstanding discriminatory housing practices and policies (e.g., redlining, racially restrictive housing covenants; (James et al., 2024; Taylor, 2014)). Systemic injustices have prevented low-income communities and people of color from accumulating wealth, making them less able to adapt to climate change issues (Rice et al., 2022). Communities of color have also historically been forced to live in unhealthy neighborhoods with contamination (Johnston & Cushing, 2020), noxious industries (Sze, 2006), landfills (Cutter, 1995; McKinney & Thomson, 2022; United Church of Christ Commission for Racial Justice, 1987), fewer trees and less vegetation (Drescher, 2019; Foster et al., 2024; Schwarz et al., 2015) —issues which climate change will compound (Bullard, 1990; Smith et al., 2022; Versey, 2021).

Legacy Cities

Inequalities are felt particularly hard in post-industrial cities where wealthy residents and industry moved from city centers to the suburbs (or overseas), leaving the most vulnerable

residents behind. These places, called "legacy cities," are inherently unequal due to the loss of industry, decades of disinvestment, and resulting increases in poverty (Ganning & Tighe, 2021; Ryberg-Webster & Tighe, 2019; Tighe & Ganning, 2015). Over time, much of the recent population growth that legacy cities have experienced has come from wealthy, white-collar workers, compounding income inequality between those moving in and existing residents (Mallach, 2018). Additionally, legacy cities have a shrinking or limited pool of available resources, so they pursue economic growth and development to jumpstart their economies (Akers et al., 2020; Ehrenfeucht & Nelson, 2020; Ortiz-Moya, 2020; Pallagst et al., 2017; Silverman, 2020). One avenue for pursuing this desired growth is via investments in urban greening.

Parks and Green Infrastructure as Climate Adaptation

Increasingly, cities are turning to green amenities to address environmental conditions and human health conditions simultaneously (Meerow, 2020). Green infrastructure (e.g., rain gardens, trees, bioswales) and parks can provide places for health-promoting activities like physical activity, relaxation, and social connection (Jabbar et al., 2022; Larson et al., 2016; Zhang & Qian, 2024). This infrastructure also provides ecosystem services, such as absorbing greenhouse gases, filtering and slowing stormwater runoff, and reducing heat island effects (Coutts & Hahn, 2015; Green et al., 2021; Prudencio & Null, 2018).

Cities view green infrastructure as desirable, "win-win" adaptations to climate impacts, particularly as cities are experiencing resource constraints. However, when cities invest in green amenities or other climate adaptation infrastructure, the places that receive investment become increasingly attractive (Gould & Lewis, 2021). People who can afford to move to more resilient

areas price out and displace existing residents. Additionally, when disasters do happen, the act of "building back better" and focusing on mitigation of future loss results in the development of new, structurally stronger homes that are only accessible to the wealthy (Gould & Lewis, 2018, 2021; Quinton & Nesbitt, 2024). Wealthy residents can also afford to invest in weatherization or renewable energy capacities on their properties if they do not move to areas that have received adaptation infrastructure (Anguelovski et al., 2019a). Ultimately, the gap between those with access to safe environments and those without will continue to grow as climate change worsens (Rice et al., 2022). The same inequalities also manifest when it comes to access to urban green space, such as parks or trails, and green infrastructure. Low-income communities of color tend to have less access to parks and green infrastructure than their more affluent, white counterparts (Miller et al., 2022; Rigolon, 2016; Rigolon et al., 2018). When these communities do have green space, it tends to be lower quality, smaller, and more congested than parks in white neighborhoods (Kephart, 2022; Rigolon et al., 2018; Sister et al., 2010).

Climate Adaptation Planning

Urban greening is one way cities pursue climate adaptation – which is broadly defined as actions that are taken to reduce risks associated with changing climate conditions (Wasley et al., 2023). With limited federal-level action on climate in the U.S., cities have started being proactive in climate adaptation planning. This has resulted in the development of city-level sustainability and climate adaptation plans that identify climate risks and vulnerabilities (Bassett & Shandas, 2010; Betsill & Bulkeley, 2005; Malecha et al., 2025; Stults & Woodruff, 2017). These plans outline actions in a variety of sectors, such as waste management, housing, or public transit. The first of these plans was created in the early 2010s, and many of the early-adopting cities have

updated their plans or made new ones over time. Recognizing that climate change will have uneven impacts on residents, cities increasingly consider equity and justice in their plans, to prioritize those most vulnerable (Brinkley & Wagner, 2024; Brousseau et al., 2024b; Chu & Cannon, 2021; Fiack, 2022; Hess & McKane, 2021; Kronenberger et al., 2025; Malecha et al., 2025; Mullenbach & Wilhelm Stanis, 2022).

Climate adaptation planning and urban greening are frequently described as offering an opportunity to increase equity and address existing inequality, particularly in legacy cities (e.g., Chu & Cannon, 2021; Hughes, 2020; Mullenbach & Wilhelm Stanis, 2022). At the same time, prior research has documented how investment in climate and green infrastructure instead lead to increased development, higher costs of living, and negative quality of life impacts on historically marginalized communities (Anguelovski et al., 2019a; Gould & Lewis, 2017; Pratt, 2023). Rising housing costs can cause physical and cultural displacement, otherwise known as environmental gentrification (Anguelovski et al., 2022; Anguelovski et al., 2019b; Checker, 2011; Gould & Lewis, 2017).

Further complicating the ways legacy cities approach urban greening is residents' perspectives. In many instances, residents are wary about proposed investments for a variety of reasons. For example, in Detroit, residents were surveyed about their desire for new street tree plantings in their neighborhoods. While some viewed new trees favorably, other residents were opposed, citing concerns about tree maintenance or size (e.g., the trees planted were too big for existing lots) (Carmichael & McDonough, 2018). Similarly, residents of Detroit and Cleveland expressed mixed responses for developing green infrastructure on vacant lots, with residents supporting projects when first implemented but becoming less supportive over time as projects became unattractive (Dewar, 2025). In studies about green space investment in St. Louis (another

legacy city), residents again expressed mixed beliefs about the value of new parks and green infrastructure. Low-income residents living near vacant lots were less likely to support park development than wealthier residents living farther from vacant land (Mullenbach et al., 2021). Residents understood the ecosystem and health benefits parks and green infrastructure provide, but also worried that new green space might bring unwanted behaviors such as gang activity or illegal dumping (Wilhelm Stanis et al., 2024). When parks were being designed, residents also felt left out of the process. They also had conflicting beliefs about potential positive or negative outcomes of park construction, with some viewing a new park as an opportunity for their community and others worrying about higher property values and thus higher taxes leading to displacement (Wilhelm Stanis et al., 2024). These studies identify a key tension when it comes to greening in legacy cities: communities that have often been overlooked desire investment but want to have a say in how green amenities such as a new park are designed and implemented.

It is undeniable that urban green amenities provide benefits to all types of cities, including better health outcomes and managing environmental issues (Larson et al., 2016). However, climate adaptation and urban greening are theorized, in conflicting and contradictory ways, as having the potential to both increase equity and exacerbate injustices. Further investigation of the ways in which urban greening and climate adaptation occur in practice is necessary, particularly in post-industrial cities where inequality is stark. Legacy cities are framed as able to capitalize on the opportunities that climate adaptation provides and take transformative action, addressing climate impacts and making real progress on equity. At the same time, it is well documented that legacy cities face real resource constraints, perhaps limiting their capacities for climate adaptation in the first place, or requiring growth-based solutions to implement adaptation. Little research has empirically documented whether the potential

transformative changes of equitable urban greening take place in legacy cities pursuing adaptation, and if so, how residents benefit from these actions. This dissertation investigates how legacy cities are pursuing climate adaptation, and whether there are true benefits for residents, or if greening and adaptation are another avenue for these cities to pursue economic growth.

Political Economy of the United States

Driving the need for cities to pursue economic growth is the decreasing number of resources available to them due to political economic influences. Since the 1980s, the dominant mode of governance in the United States has been neoliberalism, the idea that the competitive free market is the most efficient way of organizing society and the economy (Harvey, 2007a, 2007b; Rutar, 2023). Under this economic philosophy, cities have reduced the amount of taxes they collect, limiting their fiscal resources (Fremstad & Paul, 2022; Peck, 2013). Neoliberalism's influence has also resulted in more deregulation of industry, the rollback of social welfare protections, and an increasing emphasis on individual actions to remedy inequality (Brown, 2019; Centeno & Cohen, 2012; Joy & Vogel, 2021). While cities have reduced their support for social services, they have also opened themselves up to white collar workers and wealthy elites by rebranding to attract more capital and investment from global firms (Shi, 2021). These actions result in more inequality in terms of environmental health, decreased housing affordability, gentrification, and wider social and economic disparities across metropolitan areas (Gilmore, 2015; Shi, 2021).

Neoliberalism has become hegemonic throughout the country, with politicians and cities across the political spectrum supporting policies that align with neoliberal ideals. Rather than solely emerging as the "only viable option," to funding constraints in cities, Weaver (2018)

argues that neoliberalism within the U.S. has taken hold by default through "political, institutional, and ideological constraints which push political actors to adopt policies consistent with neoliberal ideas" (p. 235). He also argues that "neoliberalism was not an inevitable, natural phenomenon, but was constructed," (p. 237) by various institutions, ideologies, and coalitions. This is especially true in legacy cities which experienced rapid deindustrialization, reduction of federal government funding, and racial change (Clouse et al., 2019; Ganning & Tighe, 2021). As a result, neoliberal, pro-capitalist policies and practices have dominated the U.S. economy, leading to a de-emphasis of the role of the state and fueling capitalism which further drives inequality.

Treadmill of Production

The neoliberal capitalist political economy present in the U.S. creates a society where all parties (cities, states, corporations, workers) are interested in pursuing continual economic growth (Schnaiberg, 1980). Each of these entities benefit in some way from growth, whether that be funding via taxes (cities, states, nation), making profit (corporations), or securing employment (workers). Growth can have positive outcomes, such as more funding available for cities and employment for workers. However, there are negative consequences of capitalism, stemming from a lack of regulation and redistribution of wealth: social inequality and environmental exploitation. In a capitalist economy, resources are continually exploited at faster rates to keep up with production and consumption. At the same time, increasing amounts of efficiency and labor power are required to meet production needs, with less support for the reproduction of labor. Because workers are producing more value than they are compensated for, the owners of the means of capital production extract surplus value as profit. The resulting exploitation of laborers produces social inequality, as the owners of capital receive further wealth and workers

are not compensated fairly for their labor. Capitalism also exploits and degrades the natural environment. Once resources are consumed in one area, capital is then forced to move around to seek out more resources and land to occupy, leading to uneven development. This continual cycle of economic growth causing social stratification followed by more growth is known as the *treadmill of production* (Gould et al., 2004, 2008; Schnaiberg, 1980; Schnaiberg & Gould, 1994).

The treadmill of production persists because proponents of capitalism claim it will provide funding for environmental improvements and social welfare programs and allow for upward social mobility. Thus, the treadmill continues, despite the exploitation it requires, because further economic growth is perceived to be the solution to both social problems and environmental degradation. However, in reality, capitalism fails to provide these benefits and exacerbates existing inequality. Although dependent on the degree of power workers have at a given time, wages tend to decrease while workers are expected to provide increasingly larger output, with less time for social reproduction and rest (Harvey, 2007a). The economic exploitation workers experience leads to health and quality-of-life concerns. These same workers often live in degraded, polluted environments, which are created through continual exploitation of natural resources. Therefore, with fewer economic means, those exploited under the treadmill have little ability to better their situations, further increasing inequality. At the same time, the economic benefits from the treadmill are distributed upwards towards social elites and the owners of capital production who accumulate more wealth. And, because they live in healthier environments, these elites enjoy better quality of life than the workers they exploit. Overall, under the treadmill of production, the economic benefits of growth are distributed upwards to societal elites, and the environmental harms of growth (pollution, degraded environments) are

distributed downwards, particularly into low-income communities of color (Gould et al., 2004, 2008; Schnaiberg, 1980; Schnaiberg & Gould, 1994).

Growth Machines

On a smaller scale, cities are influenced by the pressures of the treadmill of production and operate locally as growth machines. Powerful actors relentlessly pursue economic growth and development via growth coalitions made up of developers, planners, and other decision-makers (Logan & Molotch, 2007; Molotch, 1976). These profit-seeking entities attempt to gain as much as they can off urban land and resources (Foster, 2022). As a result, cities provide incentives for developers or create amenities to attract further investment and employers, rather than supporting the needs of existing residents. The growth coalition also relies on cities as a labor source and wields significant power over decision-makers. Members of the growth coalition are able to band together and push the city to make more business-friendly decisions (Logan & Molotch, 2007). In addition, the growth machine consumes land, turning the outer fringes of urban areas into parts of the city, to grow the economy and population while maximizing the value extracted from urban land. Ultimately, this means cities become spaces for the rich and wealthy, with little concern for vulnerable residents nor for the climate and environment (Gould & Lewis, 2017).

The "green growth machine" is a specific form of the growth machine that operates around green amenities, like parks or stormwater infrastructure. The development of the green growth machine follows the logic of an urban greening treadmill (DuPuis & Greenberg, 2019; Gould & Lewis, 2017; Lang & Rothenberg, 2017; Rigolon & Collins, 2023). Members of the green growth coalition use their status and influence to manipulate public concerns about low environmental quality. In doing so, the growth coalition creates public support for funding the

construction of new green amenities or improving those that already exist. These amenities are valuable and desirable, therefore real estate values increase surrounding these investments. Rising home values and rents can lead to green gentrification, causing displacement of marginalized communities to even more vulnerable and inequitable neighborhoods (Gould & Lewis, 2016, 2017). While greening does lead to localized environmental improvement, it still results in increased social inequality through gentrification, which is more likely to affect low-income communities and people of color (Anguelovski et al., 2019b). These neighborhood changes can also result in cultural or social displacement of existing residents, as familiar places become unrecognizable (Goodling et al., 2015; Mullenbach & Baker, 2020; Reed-Thryselius, 2023). For example, an influx of white newcomers may bring new types of stores or changes in the use of public space, leading existing residents to feel out of place in their communities (Anguelovski, 2015; Bélanger, 2012; Reed-Thryselius, 2023).

Previous research has theorized that climate adaptation planning and investment decisions are influenced by the green growth machine and coalition. These studies have focused on the impacts of urban greening and climate adaptation primarily in strong market cities where real estate markets are more active and gentrification pressures are more pronounced. For example, Gould & Lewis (2012, 2016, 2021) explore development trends alongside urban greening and climate adaptation investments near Prospect Park and the Gowanus Canal in Brooklyn. In these studies, Gould and Lewis document how investments led to gentrification, as certain neighborhoods became more desirable following greening. Other studies have documented sustained green gentrification occurring over recent decades in cities such as Atlanta, Seattle, Boston, San Francisco, and Washington D.C., with less green gentrification occurring in legacy cities like Detroit, Cleveland, or Baltimore (Anguelovski et al., 2022).

Much of what is known about how the green growth machine operates and the outcomes of city-level decision-making is based on empirical studies from cities with more active real estate markets. In these cities, the greening of neighborhoods is closely linked with an influx of new, wealthier, whiter residents who often displace existing residents of color (Angueloveski et al., 2019b; Gould & Lewis, 2012, 2016, 2017; Mullenbach & Baker, 2020; Reed-Thryselius, 2023). Urban greening is often framed as an opportunity to increase equity in post-industrial legacy cities where real estate markets tend to be cooler and less competitive (Angelo, 2019; Gould & Lewis, 2012; Schilling et al., 2023; Wachsmuth & Angelo, 2018). However, the green growth machine does not include considerations of the ways race and racialization shape urban development decisions. In legacy cities where a significant portion of residents come from communities of color, understanding the racialized dynamics which shape urban greening and economic growth decisions is critical, particularly for assessing progress on equity and justice. Therefore, this dissertation argues that the green growth machine should account for race and racialization as powerful influences on urban greening and economic development, particularly in legacy cities.

Racial Capitalism

One of the major critiques of the growth machine theory is its lack of discussion of race and racism's influence on growth and development in cities. Drawing primarily on Marxist theory, Logan and Molotch (2007) argued that the growth pressures present in cities come from the growth coalition's goal of profiting off development. However, this perspective leaves out the role of systemic racism in ordering U.S. society, and how racial structures influence urban planning and city development. Recent scholarship has expanded the growth machine theory to

include racial dynamics, arguing that "the growth machine operates within a broader racialized structure that affects the politics of urban development and has produced racially uneven development across the United States" (Rucks-Ahidiana et al., 2025).

This relationship between urban development and systemic racism can be understood through the lens of racial capitalism, which is the idea that capitalism itself is grounded in the exploitation of marginalized people (Bledsoe & Wright, 2019; Dantzler, 2021; Dantzler & Hackworth, 2025; Jodi Melamed, 2015; Kelley, 2017; Robinson et al., 1983) Bledsoe and Wright (2019, pp. 99) argue that "civil society as we understand and live it is in(formed) by the dehumanizing condition of chattel slavery." Violence against Black lives upholds the processes which support global capitalism and the accumulation of capital. For example, the practices of disinvestment, white flight, gentrification, urban renewal, and incarceration are routinely used against Black communities to dominate Black spaces and remove Black people from them, therefore opening these spaces up to further capital accumulation (Bledsoe & Wright, 2019).

Rucks-Ahidiana (2022) expands on this process further, highlighting how racial capitalism contributes to our understanding of urban development via the growth machine. Race and racialization shape how land is valued, meaning some places are seen as better sites for investment than others (Dantzler, 2021; Pulido, 2017; Rucks-Ahidiana, 2022). This plays out in the way development occurs in cities. Disinvestment has affected Black neighborhoods significantly more than white neighborhoods, resulting in uneven and unequal development as white neighborhoods gentrify more than Black ones. This suggests that Black neighborhoods are not deemed valuable enough for any investment at all, and that the racial hierarchy influences how neighborhoods are valued (Dantzler, 2021). However, it is possible for some Black neighborhoods to be viewed favorably, particularly when they are close to downtown areas of

cities (Rucks-Ahidiana, 2022). The differential valuation of Black lives results in two outcomes. Either these neighborhoods are overlooked in development decisions, or they are viewed as viable options for the creation of more wealth and power for the growth coalition and are invested in (Rucks-Ahidiana, 2022; Rucks-Ahidiana et al., 2025). Therefore, the growth machine may be more likely to support development when it primarily impacts communities of color, and less likely if it is white communities which are affected. This pattern occurs because white neighborhoods are often valued more highly than their Black counterparts and are thus preserved.

Few studies have specifically investigated how race shapes urban greening and climate adaptation decisions in cities. The outcomes of these decisions and planning processes are well identified, such as low-income communities of color being burdened with undesirable land uses (e.g., Bullard, 1990; Cutter, 1995; Foster, 2022; Johnston & Cushing, 2020; Sze, 2006) or having less access to parks than their white counterparts (e.g., Miller et al., 2022; Rigolon, 2016; Rigolon et al., 2018). How these decisions play out is less clear, especially when it comes to understanding how members of the green growth coalition use urban greening initiatives to spur economic growth. What I argue in this dissertation is that the operations of the green growth machine are influenced by race and racism, exacerbating inequities present in legacy cities, despite previous research indicating greening may be an opportunity. Racial capitalism also provides a lens for understanding the ways communities are differently valued in urban planning decisions (e.g., Dantzler, 2021; Pulido, 2017; Rucks-Ahidiana, 2022). When the perspectives of certain (often white) communities are prioritized in planning decisions or if investment in greening is used to remove communities of color from certain areas via gentrification, this represents the differential valuation of communities of color and white residents in urban space.

Therefore, it is important to include considerations of race in the green growth machine theory and understand how racial dynamics are influencing decisions surrounding urban greening in legacy cities.

White Ideals of Nature

Moving beyond whether a green amenity is built or not, the design of urban green spaces is also influenced by race and ideas about what urban green space should look like. Within the United States, there is a long history of the separation of nature and people, keeping nature "pristine" and external from society (Heynen et al., 2006; Heynen & Robbins, 2005). Natural spaces, for example, national parks, have long been used to separate communities leading to disparate access between white people and communities of color (Heynen et al., 2006; Heynen & Ybarra, 2021; Kephart, 2022; Taylor, 2016). This separation represents nature in the white ideal, with pastoral countrysides and the conceptualization of parks and green space as a reprieve from city life (Mullenbach et al., 2022). Additionally, the new, large, regional parks cities create can be difficult to access without a car or if there is unreliable public transportation. As a result, certain members of society are excluded from accessing the benefits of parks (Kephart, 2022; Rigolon, 2016; Sovacool et al., 2015). As sustainability ideals become more widespread in U.S. cities, urban greening and the expansion of parks systems have become key priorities in many areas, particularly in post-industrial city redevelopment and the recruitment of the creative class to urban spaces (Angelo, 2019; Schilling & Logan, 2008).

As the growth coalition pursues further economic growth in post-industrial cities, urban greening can take many forms. Waterfront redevelopment (Mell, 2022; Usher, 2025), the construction of new regional parks, planting more urban trees (Myers et al., 2023), or investment

in bike lanes or greenways (Horte & Eisenman, 2020) are common greening strategies. These investments are often framed as purely "good," and adding value to urban spaces (Angelo, 2019, 2021; Wachsmuth & Angelo, 2018). Frequently, however, the urban greening investments being made do not represent the desires of residents of color (Loughran, 2020). Previous research has called into question the characterization of greening as entirely good, arguing instead that there are significant economic and social pressures which accompany greening (Angelo, 2019; Checker, 2011; Curran & Hamilton, 2017; Rigolon & Collins, 2023; Wolch et al., 2014). As Gould and Lewis (2017) explain, "greening richens and whitens" neighborhoods, leading to an influx of wealthier and whiter residents to communities near new parks and other environmental amenities. Thus, greening in this white ideal, where amenities are created with certain residents in mind, may exacerbate existing environmental injustices present in terms of park access and use.

Environmental Justice in Urban Areas

Urban parks and green spaces provide benefits for health and quality of life, such as increasing residents' physical activity or mental health (Jabbar et al., 2022; Larson et al., 2016). Green infrastructure also provides environmental benefits, such as purifying water and air and reducing the impacts of extreme precipitation events (Coutts & Hahn, 2015; Pinto et al., 2022; Zhang & Qian, 2024). However, access to urban green spaces is not equitable across cities. Often, low-income communities of color have poorer quality parks and have to travel farther to access them in comparison to their white counterparts (Miller et al., 2022; Rigolon, 2016; Rigolon et al., 2018). Having less access to parks generally or having lower quality parks with fewer amenities results in marginalized communities being unable to reap the health benefits of

parks (Coutts & Hahn, 2015; Pinto et al., 2022; Rigolon et al., 2021; Wolch et al., 2014). These disparities in urban park access and quality are an example of an *environmental injustice*.

Park access is not a new issue in urban spaces. In the United States, there is a long history of people of color being forced to live in environmentally poor communities near toxic facilities such as garbage incinerators or landfills. This pattern is a result of racist housing practices like redlining (Dantzler & Reynolds, 2020; James et al., 2024; Taylor, 2014). Systemic environmental injustices derive from both white supremacy and from racial capitalism, which serve to maintain the social hierarchy where people of color are continually forced to live in worse environments than their white counterparts (Bledsoe & Wright, 2019; Dantzler, 2021; Pulido, 2000, 2015, 2017). Pulido (2015) argues that white supremacy has allowed for the increase in environmental injustices through discriminatory practices, like racial covenants or exclusionary zoning and non-regulation of industry. By differently valuing people of color's lives and bodies, racial capitalism removes spaces that people of color occupy and uses them for capitalist growth (Dantzler, 2021; Pulido, 2017; Rucks-Ahidiana, 2022). Over time, residents that can leave their polluted or unhealthy neighborhood do so. In the process, that opens up neighborhoods to more investment and capital accumulation, often from large, global corporations who continue to pollute and endanger the lives of people of color (Bledsoe & Wright, 2019). Poor residents of color are also less likely to be able to afford to move out of environmentally vulnerable locations within cities (Bergman et al., 2024; Mallach, 2018; Taylor, 2014). Societal structures, including racism, create and perpetuate environmental injustice.

Distributive Justice

Although there are many definitions of what constitutes environmental justice, the most widely used is a three-part framework, described in Schlosberg (2004). The first component of environmental justice, distributive justice, pertains to the spatial location of both environmental bads (e.g., pollution, landfills, other forms of industry) as well as location of and access to environmental goods (e.g., near parks, has clean air). The placement of new parks, green infrastructure, or other environmental amenities can be an example of distributive injustice, as access is often inequitable throughout cities (Kephart, 2022; Larson et al., 2025; Miller et al., 2022; Pearsall & Eller, 2020; Rigolon, 2016; Rigolon et al., 2018). The targeting of certain areas for investment and new infrastructure also illustrates the role of distributive justice. On one hand, cities can choose to invest in poorer, more vulnerable areas to make them safer and healthier, or investment could be funneled to wealthier neighborhoods in the hopes of attracting more wealthy residents and to respond to privileged residents' concerns (Brousseau et al., 2024a; Fiack et al., 2021; Fiack, 2022; Meerow et al., 2019; Schrock et al., 2015). In terms of climate adaptation or sustainability, when cities invest in infrastructure like sea walls or other flood management systems, places surrounding those areas tend to gentrify because they are viewed as "safe" or resilient. This leaves some people, who tend to be marginalized (e.g., Black, Hispanic/Latino, working-class) without access to climate-ready communities while others are more protected (Gould & Lewis, 2018, 2021; Quinton & Nesbitt, 2024; Shokry et al., 2022).

Procedural Justice

Procedural justice refers to how equitable planning and decision-making processes are. In other words, procedural justice occurs when people have input into decisions about construction,

siting, planning, and design of different aspects of their communities (Bell & Carrick, 2018; Brinkley & Wagner, 2024). Procedural justice is a result of residents being able to participate fully in the planning process, not only being given the opportunity to comment on a pre-existing project or design (Brousseau et al., 2024b). Instead, in procedurally just decision-making, residents are able to conceptualize, design, and influence where investment goes and what it looks like in their communities (Meerow et al., 2019). Related to greening or climate adaptation, procedural injustice might take on a few forms. For example, if public meetings to develop a climate adaptation plan are held during work hours or without childcare, some residents may not be able to participate (Meerow et al., 2019). The physical location of a community meeting matters as well – locations far from public transportation options or in buildings which may seem "off limits" to residents can decrease participation (Meerow & Woodruff, 2020). Procedural injustice could also look like the desires of residents who have previously been overlooked in decision-making being prioritized (Brousseau et al., 2024b). A just planning process might include cities having resident involvement in the development of their climate plans, giving higher status to members of marginalized communities (Rudge, 2021).

Recognition Justice

The final component of Schlosberg's triad is recognition justice, which deals with issues of status within society by acknowledging historic injustices and making efforts to address them in present day. Recognition justice centers on cities acknowledging their role in the creation of inequities in the first place, as well as the fact that resident groups' needs will vary across the city because of these inequities (Brousseau et al., 2024b). For example, Kyle Whyte (2018, 2011) describes how members of the Akwesasne Nation were forced to stop traditional fishing practices in the St. Lawrence River due to high levels of pollution. Because of the pollution, the

U.S. and Canadian governments required the Akwesasne to stop their fishing altogether, resulting in negative health outcomes. This represents recognition injustice because the governments making decisions failed to recognize the role of traditional fishing in Akwesasne culture. Instead of stopping pollution or cleaning up the waterway, tribal members were expected to give up their longstanding practices. In climate adaptation planning and greening, recognition justice might look like cities acknowledging their role in creating inequitable communities. This could include describing how legacies of redlining or other racist housing practices have influenced the physical location of communities of color, making them more susceptible to environmental harms, and planning to reverse these legacies (Meerow et al., 2019).

Critiques of Environmental Justice

While the environmental justice framework is useful for diagnosing the existence of inequities in society, there have been multiple critiques of it over time. First, the framework fails to explain *why* injustices exist in the first place and instead jumps right to providing a mechanism through which researchers can say "there is an injustice in this location." As a result, environmental justice scholars have to rely on other approaches and theories to explain the existence of injustice in the first place, such as the influence of neoliberalism and capitalism, the treadmill of production, and growth machines. Including these concepts in the environmental justice framework has the potential to transform scholarship on environmental inequality and provide insight into *how* injustices materialize, rather than simply identifying where they exist.

Another critique of the environmental justice framework is that solutions it proposes exist within the same institutions and structures which created inequities in the first place (Swyngedouw & Heynen, 2003). Procedural justice suffers from this, because it seeks to

make existing decision-making processes more equitable rather than identify new ways of planning and making choices. If cities and the state are responsible for the injustices that exist in society in the first place, and if injustices exist in societal institutions, those same institutions cannot be counted on to remedy the problems that are present today (Harrison, 2023). Instead, institutions require transformation and change before they are equipped to tackle the injustices we see today.

Related, environmental justice scholarship is critiqued by some in the field for engaging with the state in too friendly of a manner. Pulido (2017) conceptualizes environmental racism as "state-sanctioned violence," arguing that the state is deeply invested in not stopping or undoing environmental racism and inequality because the costs to industry, the political system, and the state itself would be too high. The state wants to maintain the inequality that exists in society so it can remain competitive in the global market by exploiting workers and communities, therefore it does little to address environmental injustices. Additionally, Pellow (2017) argues that environmental justice scholars look to the state to meet their demands via legislation, reform, or other policy changes. However, this approach leaves the same structures that created injustices in the first place intact and may even reinforce their legitimacy by collaborating with the institutions that uphold them. This failure of governmental reforms to address environmental degradation is known as "state failure" (Pellow & Brulle, 2005).

Summary and Research Gap

As cities continue to prepare for and deal with the impacts of climate change, many are pursuing investments in urban greening. These investments are popular for the ecosystem and social benefits they provide, and because green infrastructure costs comparatively less than gray

infrastructure. The benefits of greening are particularly profound for legacy cities. However, the literature on urban greening in legacy cities is unclear: some previous studies argue that greening is an opportunity for legacy cities to pursue equity and justice, while others document green gentrification and resident displacement after investment. Previous scholarship has theorized that green growth in legacy cities with cooler real estate markets may not lead to extreme gentrification and displacement, as in cities where real estate is more desirable. **This dissertation investigates this gap in the literature and argues that urban greening in legacy cities both exacerbates existing inequality and leads to resident displacement, driven by racialized urban development and economic growth.** By viewing urban greening through a racial capitalism lens, **this dissertation argues that green growth in legacy cities operates in similar patterns as cities with stronger real estate markets, with significant impacts on low-income communities of color who have been overlooked in decision-making processes**. Growth coalitions in legacy cities utilize racialized language to spur green development in certain communities, thus encouraging rising rents and ultimately the displacement of existing residents. In doing so, the growth coalitions open up spaces of new investment in communities of color which have been disinvested for decades, allowing for further capital accumulation at the expense of Black lives and bodies.

Chapter 2: Methods

This dissertation constitutes a critical discourse analysis of urban greening, climate adaptation, and sustainability initiatives in three U.S. cities: Cincinnati, Ohio; Detroit, Michigan; and Providence, Rhode Island. Using newspaper articles, city planning documents, and interviews with local government and non-profit staff members, I analyzed how cities are, or are not, using urban greening as a vehicle for economic development. Additionally, I also analyzed how influential members of these cities use their voices to shape development outcomes. This chapter describes my overall methodological approach, as well as the methods and analysis strategies I used throughout this dissertation.

Discourse and Critical Discourse Analysis

Broadly defined, discourse is a set of related texts that are influenced by social relationships and also have the ability to influence society (Cheek, 2004). Scholars have defined discourse as not just reflecting things "out there" but as also constructing social reality (Fairclough, 1992, 2001; Hjelm, 2021). In addition, discourse has a role to play in society and can be considered a social practice, contributing to social change (Fairclough, 1992, 2001; Potter, 1996). Discourse also affects the way knowledge is produced and how power manifests in the world, therefore, it has a meaningful influence on policy decisions and planning (van Dijk, 1997).

The power imbalances present across society are reflected in discourse, where those at the top have more access to resources and often use discourse to reinforce their positions or maintain the social status quo (van Dijk, 1993). The perspectives of these powerful individuals or entities are often countered by other voices, though the narratives they share tend to be less

cohesive and less powerful. As a result, there are orders of discourse that have varying amounts of power with which they can influence decision-making and planning. Discourse analysis can be used to uncover these dominant and non-dominant orders of discourse, where dominant discourses are developed and perpetuated by those with the most power and non-dominant discourses represent people with less power and influence (Blommaert & Bulcaen, 2000; Fairclough, 2001).

Critical discourse analysis is a specific form of discourse analysis which focuses on how discourse produces or upholds hierarchies of power (Fairclough, 2001; Denham, 2023). My analysis methodology drew on the traditions of Foucault and Gramsci, both of whom theorized about how power manifests in and shapes society. Specifically, Foucauldian discourse analysis can be used to understand how discourse shapes practice and policy agendas (Cheek, 2004; Sharp & Richardson, 2001; Willig & Stainton-Rogers, 2011). For example, if discourse perpetuates "correct" ways of thinking and doing, it can be described as functioning ideologically, shaping the values that structure society (Hjelm, 2021). In the realm of climate adaptation, this might look like members of the growth coalition pushing a specific narrative about what urban greening and climate action "should" look like in a given city, ignoring the needs and desires of other groups. Similarly, Gramscian discourse analysis investigates how discourse reinforces social hierarchies (Lees, 2004). In climate adaptation, this might look like cities viewing adaptation or greening as a mechanism for economic growth that would uphold the existing structure of capitalist exploitation, while other, non-dominant voices argue for a restructuring of the economy.

Discourse about urban greening and climate adaptation comes largely from local newspapers, local decision-makers, and public-facing planning documents. Due to their status in

society, members of the growth coalition can influence public opinion via access to the local media (Gould & Lewis, 2017; Logan & Molotch, 2007). In this sense, the media operates as an arm of the growth machine, making it an effective source for analyzing the dominant discourse. However, due to their relationship with the growth coalition, newspapers may downplay speakers of the non-dominant discourse or cover their messages with less intensity. Combined with the disparate nature of the non-dominant discourse, newspaper articles may not be the optimal source for assessing non-dominant messages. In addition, local newspapers are increasingly owned by large, national conglomerates, potentially influencing how local issues are portrayed (Dreier, 2005). While the media plays a substantial role in how discourse is disseminated, few studies have specifically analyzed discourse around urban greening in legacy cities. In addition to this coverage, city planning documents and local decision-makers themselves also hold power over the future development of a given city.

Methodological Approach

In this dissertation, I used a top-down approach to discourse analysis, which assesses text within a larger social context rather than analyzing for specific language uses (Wood & Kroger, 2000). The first step of my analysis was to inductively code newspaper articles from each city. In doing so, I developed a codebook focused on climate adaptation and sustainability issues, parks, and broader economic development goals from across the three cities. The next step was to group codes around common traits, either similar content or similar functions (Gleason et al., 2018; Wodak & Meyer, 2001). Discourse strands, those with similar content, help identify the messages conveyed by the discourse. Discourse functions are common rhetorical devices used within the discourse to sway public perception one way or another. After identifying strands and

functions within the newspaper articles, I used the same codebook to deductively code interview transcripts and city planning documents. Figure 1 illustrates this process.

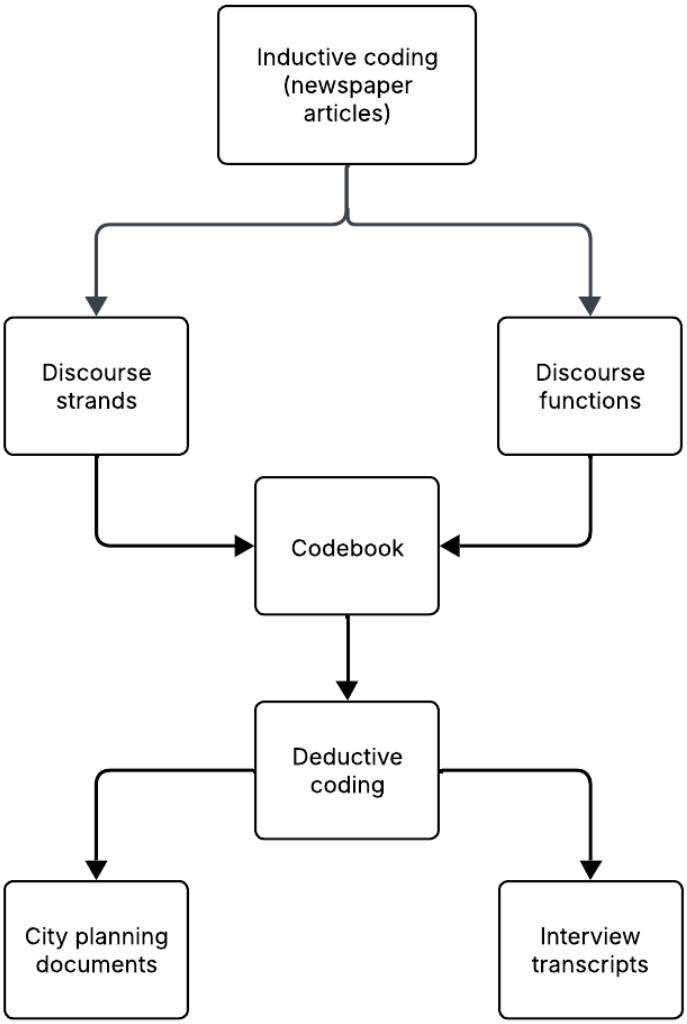

Figure 1: Inductive and deductive coding process used throughout dissertation analysis.

Data Sources

The first data source I used was newspaper articles and op-eds from major newspapers in each city. A full list of newspapers included in the dataset can be found in Table 1. Because these sources are non-academic in nature, they required a different search strategy than a traditional literature search.

Table 1: Newspaper sources from selected legacy cities.

Name	Owner
Detroit Newspapers	
Detroit Free Press	USA Today Co. (formerly Gannett)
Detroit News	MediaNews Group
FOX2-WJBK	Fox Corporation
Associated Press of Michigan	
Michigan Chronicle	Real Times Media
Detroit Crain's Business	Crain Communications
Cincinnati Newspapers	
Associated Press Cincinnati Metro Area	
Cincinnati Examiner	USA Today Co.
The Cincinnati Herald	Sesh Communications
CityBeat	LINK Media
News Record	University of Cincinnati
Xavier University Newswire	Xavier University
Providence Newspapers	
Providence Journal	USA Today Co.
Brown Daily Herald	Brown University
The Rhode Island College Anchor	Rhode Island College
NBC10-WJAR	Sinclair Broadcast Group

I primarily used the database NewsBank to find newspaper articles from each of the three legacy cities. However, the Detroit Free Press (which is the most popular Detroit newspaper and one of the most widely circulated newspapers in the country) is not included in NewsBank but is available through the Detroit Public Library. In order to include these articles in my dataset, I used the Detroit Public Library database of Detroit Free Press articles in addition to NewsBank for newspaper coverage of Detroit.

When gathering articles, I limited the search to those written between 2014 and 2024. I used a variety of keywords to identify sources related to urban greening and adaptation, including "green space," gentrification AND parks, sustainability, "climate plan," "green infrastructure," and "parks AND environmental justice." Table 2 lists a full count of articles broken down by keyword search for each city after eliminating duplicates. In some search instances, I had to be more specific with key words to reduce the number of article hits. When this was necessary, I combined key words, for example searching gentrification AND parks, rather than solely gentrification. As a result, not all key words were used in every city. After screening article titles, I retained 489 total articles, with 204 from Detroit, 133 from Cincinnati, and 152 from Providence.

Table 2: Newspaper articles broken down by keyword search for each city.

	Detroit	**Cincinnati**	**Providence**
"green space"	133	21	47
gentrification AND parks	30		
parks		75	
gentrification			12
"sustainability" or "sustainability plan"	1	27	50
"climate justice plan"			6
"green infrastructure"	34	4	19
parks AND environmental justice	6		
"environmental justice"		6	18
Total	204	133	152

In addition to newspaper articles from each city, I also read and analyzed city planning documents related to parks, sustainability, and climate adaptation. Similar to the newspapers, I limited plans to those published and adopted by city councils in the last 10 years, resulting in 16 documents, with five from Detroit, five from Cincinnati, and six from Providence. A full list of plans is included in Appendix 1. To find various city plans and other related documents, I used the Georgetown Climate Center's Adaptation Clearinghouse[1] to identify climate and sustainability plans from each of the three cities. This clearinghouse collects documents from cities across the country related to adaptation, including their plans and reports or updates on implementation progress. I also used each city's website to find their most recent parks and recreation plans as well as updates on plan implementation.

Finally, I conducted 11 semi-structured interviews with staff from city governments and local environmental non-profits in Detroit and Cincinnati. I identified potential participants from

[1] Georgetown Climate Center Adaptation Clearinghouse: https://www.adaptationclearinghouse.org

the city planning documents, selecting city staff members who had participated in the development of the most recent plans. I used the same approach to identify potential non-profit staff to interview as well. Then I reached out to potential participants via email, describing the study and the nature of the interview. After repeated attempts to recruit multiple stakeholders in Providence to participate in interviews were rebuffed, it became clear that the stakeholders who would be able to answer my interview questions were not willing to participate. I decided not to include any interviews in Providence, rather relying solely on newspaper coverage and planning documents. As such, my Providence results chapter reflects this limited scope.

I chose to conduct semi-structured interviews because they allow for a common set of topics to be discussed without having to follow a strict script. There is also flexibility for follow up questions or to follow topics that are brought up by an interview participant. This interview method was ideal for my dissertation because it allows for some amount of *in situ* flexibility while maintaining topic consistency across all interviews (Tracy, 2019). Most of the participants I interviewed worked in their city's parks or sustainability office. I also spoke with staff at environmental non-profits who partnered with the city on implementing the sustainability plans. In Cincinnati, five participants worked for the City of Cincinnati. One participant worked with the organization Green Umbrella; a regional climate collaborative focused on green space conservation and climate resilience. In Detroit, four participants worked for the City of Detroit. One worked for the Greening of Detroit, a non-profit organization in the city that focuses on increasing the urban tree canopy and building green infrastructure.

Interviews were conducted via Zoom and lasted between 45 minutes and 1 hour. I recorded the interviews within Zoom and transcribed them afterwards. Then, participants were given the opportunity to read and review transcripts, provide edits or request the removal of any

content. Participants were not compensated for their time; the majority were unable to receive compensation because of their positions in city government. The interview guide used for the interviews is in Appendix 2. This study was approved by the University of Oklahoma's Institutional Review Board (#17992).

Data Analysis

My analysis took place over multiple iterations (shown in Figure 1). First, I inductively analyzed the newspaper articles using two rounds of coding. In the first round, I focused on the substance of the texts (e.g., looking for common messages or phrases) and in the second round focused on the rhetorical structure or devices present. In this initial phase of coding, I inductively identified discourse fragments, which are sentences, phrases, or words that are related to each other based on some common attribute (Ahl & Nelson, 2015). I read through the newspaper articles in each city, starting with Detroit, then Cincinnati, and ending with Providence. After completing the first read through, I re-read and re-coded all the articles. This was done to ensure that codes I had created later in the process, based off articles from Cincinnati or Providence, were applied to articles that I had read earlier on in my analysis.

In the next phase of analysis, I used the codebook I had created while analyzing newspaper articles to deductively code the city planning documents and interview transcripts. After coding all the documents in my dataset, I had created 85 codes. Next, I organized codes around common "strands" (those with similar substance) and "functions" (those with similar rhetorical functions) (Gleason et al., 2018), resulting in two strands and six functions (Figure 2). These strands and functions are similar to themes in a more traditional thematic or content analysis and were used to draw conclusions about the way discourse operates around greening

and adaptation. Further details about the strands and functions are described in the following chapter.

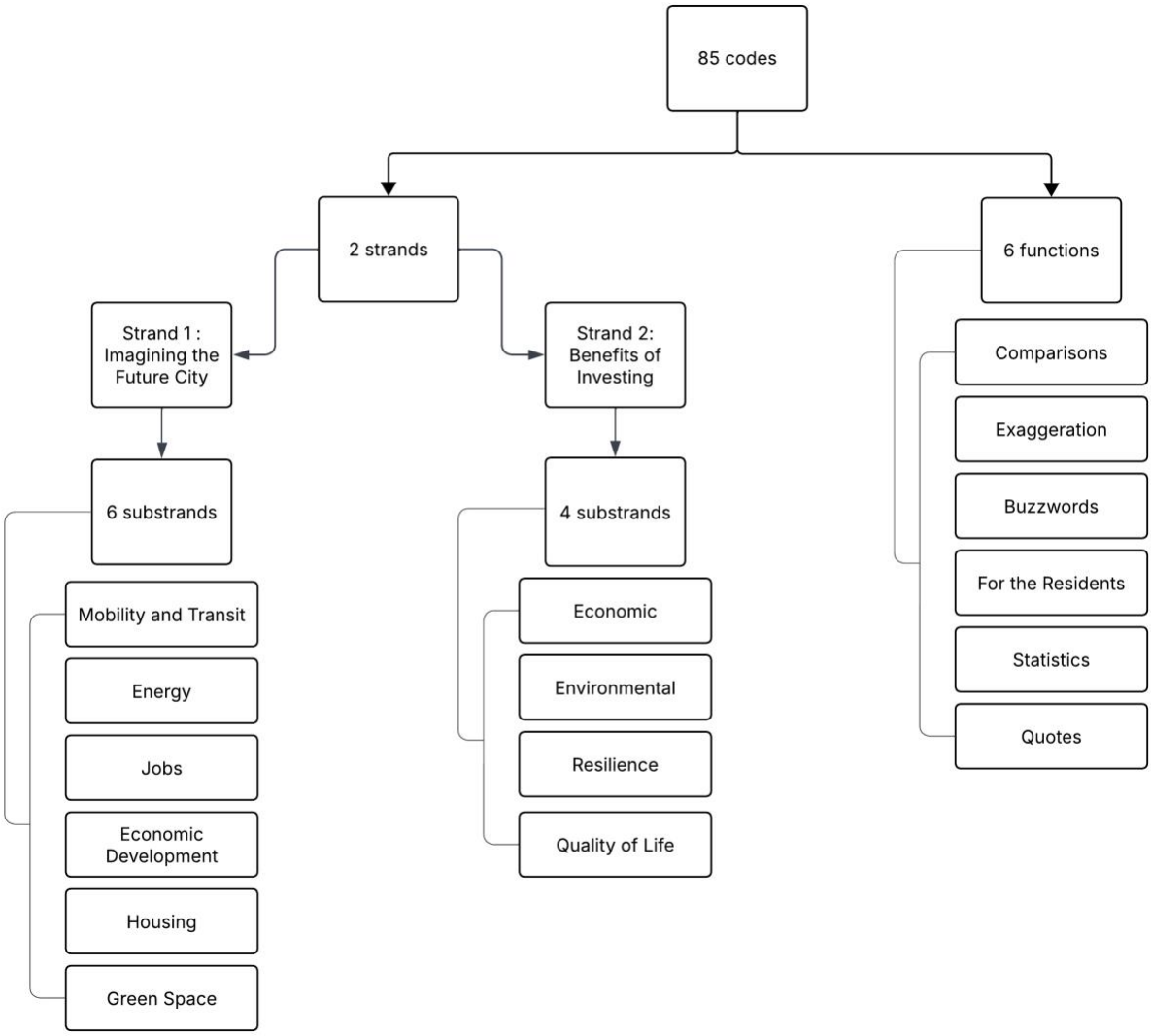

Figure 2: Strand and function creation process.

Throughout the analysis process, I engaged in multiple practices to ensure trustworthiness of the data (Elliott et al., 1999). When coding, I kept a notebook and memoed about each coding session. This was an opportunity to reflect after each coding period and organize my thoughts about what I was reading, keeping track of potentially emerging strands and functions over time.

I also recorded when I created new codes and why, both to help minimize code creep (Maxwell, 2012) but also to ensure when I re-coded the documents, I paid particular attention to codes which I had created later in the process.

Positionality

All research is value-laden and influenced by the experiences and positions of the researcher (Creswell & Poth, 2018). As a result, all researchers come to their work with certain values, beliefs, and individual experiences which shape their research interests, questions, and methodology. In this dissertation, and my research interests more broadly, I have adopted a critical perspective with a focus on social equity. I come into this work with an understanding of social injustices and power inequities, as well as the goals and challenges of climate adaptation. Drawing on environmental justice scholarship, I am attuned to the potential for cities engaging in adaptation and urban greening to exacerbate existing injustices. Further, as a critical environmental justice scholar, my initial reaction to the newspaper articles, planning documents and interview conversations may have been more negative, as I was more skeptical of each city's intentions. Throughout the research and analysis process, I had to work to overcome these existing biases using methods described earlier (e.g., memoing) to ensure I was not overlooking potential results and explanations.

Additionally, because of the value-laden nature of research, Scharp and Thomas (2019) argue that scholars engaged in critical social science research should assess how their own experiences contribute to interpretations of other peoples lived experiences. I acknowledge that the findings from this dissertation only represent one possible interpretation of the data, one which is influenced by a critical perspective that focuses on environmental justice, social equity, and the impacts of unjust decision-making on marginalized communities.

I also come into this dissertation with a worldview that is critical toward late-stage capitalism, understanding how it has caused damage to the environment and the well-being of marginalized people in urban spaces around the world. I also come into this dissertation as a white woman from a middle-class family in a predominantly white hometown. These experiences and perspectives may have unduly influenced my work, though I implemented measures to minimize this bias.

Chapter 3: Overarching Results

Between Detroit, Cincinnati, and Providence, I generated strands and functions from the discourse related to climate adaptation, greening, and economic development. This chapter will summarize the key similarities in discourse strands and functions across all three cities, and the following chapters will discuss the nuances of the discourse in each city,

First, it is important to understand who the speakers of the discourse are and the relative power they have within society. Discourse is produced by dominant and non-dominant speakers, and within these categories there is a hierarchy called the orders of discourse (Blommaert & Bulcaen, 2000; Fairclough, 1992; van Dijk, 1993). The orders of discourse are also reflected in the pervasiveness and cohesiveness of the messages being shared; those from the dominant discourse tend to be more aligned with each other and use similar rhetorical functions, while the non-dominant discourse may be more sporadic and less organized due to the grassroots nature of the speakers (van Dijk, 1993, 1997).

Across the three cities in this study, the speakers of the discourse can be organized as shown in Figure 3. The most powerful speakers of the discourse were local government officials and city staff, followed by state and local politicians, the local media, and developers. These groups shared common messages about the importance of development and economic growth in their respective cities, and the role that sustainability, parks, and climate adaptation could play in these developments. These speakers often drew on, or were supported by, claims from academics, other outside experts such as former government officials (e.g., the former head of NOAA), and private sector representatives. Within the non-dominant discourse, speakers were more varied, and messages were less cohesive. The most influential speakers of the non-dominant discourse were those associated with national-scale environmental organizations such

as the Audubon Society or Sierra Club. Following speakers from environmental groups were representatives of local non-profits or community organizations providing services to their neighborhoods. Residents were at the lowest level of the orders of discourse.

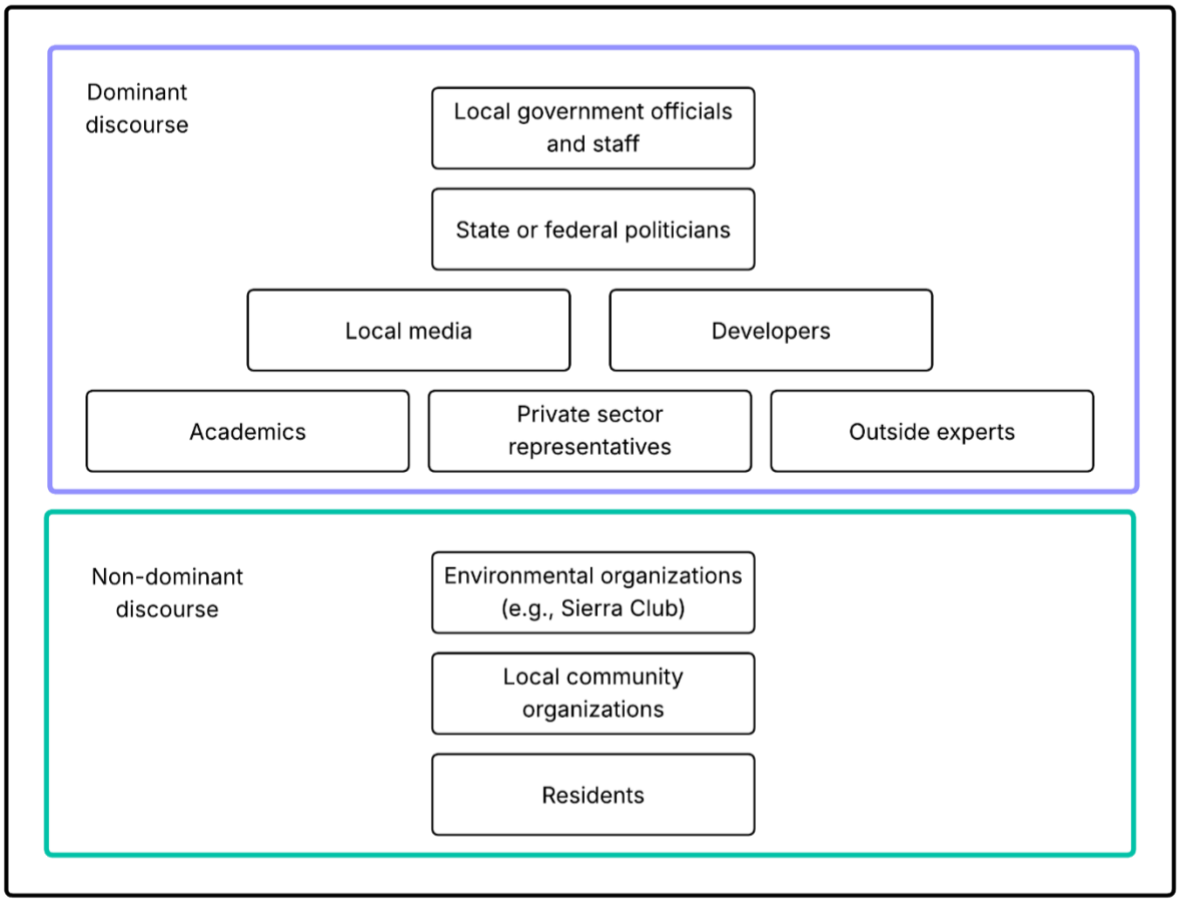

Figure 3: Orders of discourse, with speakers of the dominant discourse circled in purple and speakers of the non-dominant discourse circled in teal.

Dominant Discourse Strand 1: Imagining the Future City

The first strand of the dominant discourse revolved around imagined and planned future investments within each of the three cities. Discourse about urban greening and climate adaptation fall into six sub-strands. These areas—mobility and transit, economic growth and development, energy, jobs, green space, and housing—represent major topical areas of investment for the cities. Speakers of the dominant discourse also articulated how investments in

these areas would lead to a particular vision of each of the cities. Figure 4 shows the breakdown of sub-strands by city; a full table of code counts for each code and sub-strand are in Appendix 3.

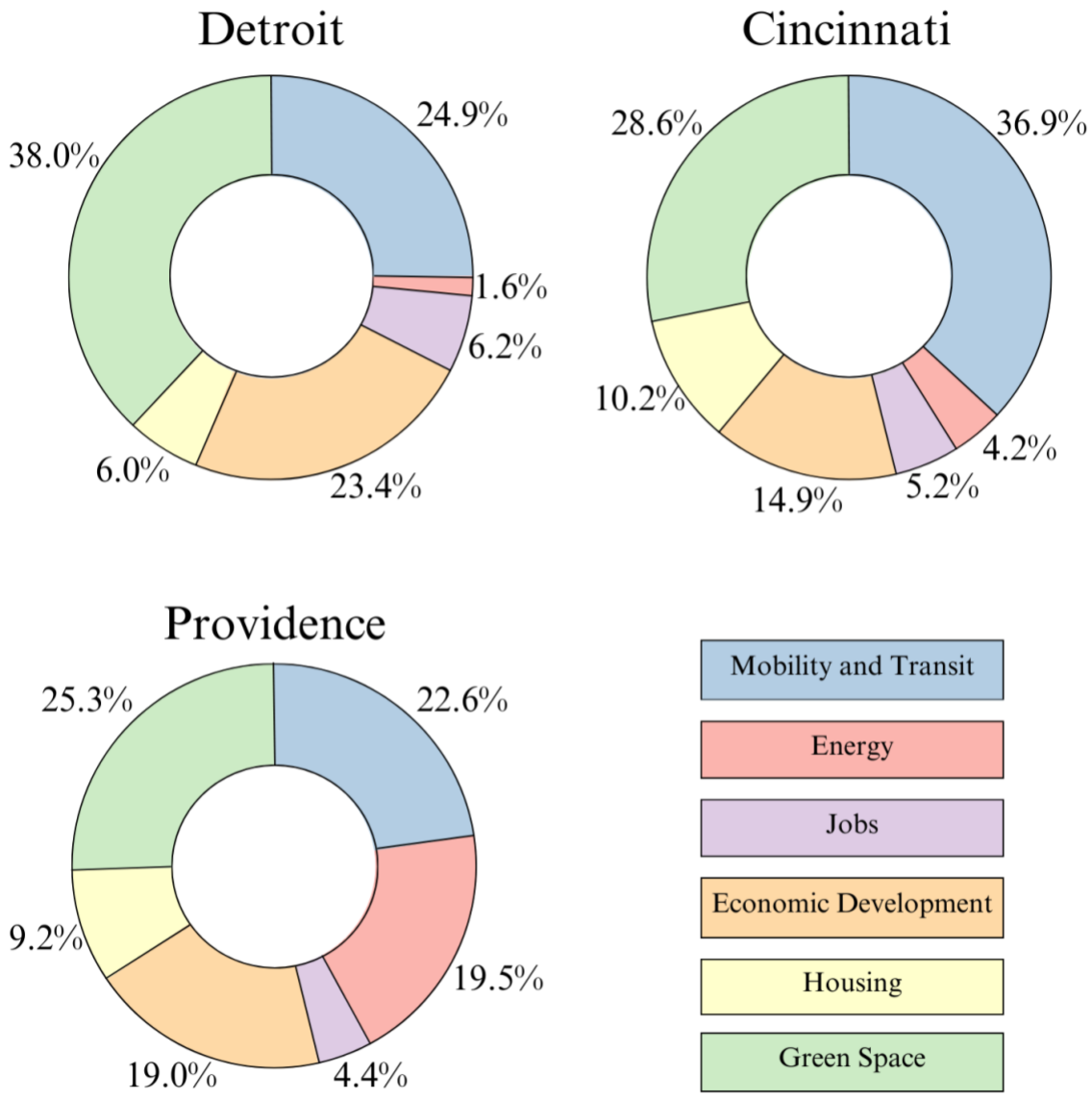

Figure 4: Proportions of each sub-strand within Strand 1 by city

Mobility and transit. Discourse around mobility and transit described investments in bike trails and greenways, increasing public transit capacity, and walkability of cities. In each of the

cities, major bike trails were planned or in progress and improving public transit access and reliability were major priorities. Other investments included new physical infrastructure, such as rebuilding bridges and highways. Alongside these large transportation investments, speakers of the dominant discourse would describe how urban greening and sustainability principles influenced the design of projects or how these projects would increase connectivity of the three cities.

Energy. Energy efficiency was one of the most widely discussed topics across the dominant discourse. Speakers argued that a significant step for city emissions reductions would come via residents weatherizing their homes. Additionally, each city was working on increasing renewable energy capacity; in Detroit and Cincinnati this was often related to converting vacant land to a more "productive" use by building solar panels. In Providence, there was more emphasis on wind energy and the environmental impacts of increasing solar power generation.

Economic growth and development. Major economic development projects were ongoing across the cities, including new hospitals, sports stadiums, and parks. The goals of these projects frequently included bringing visitors into the city. Specific economic development projects in each of the three cities will be discussed further in their respective chapters, but the important similarity is that greening and sustainability were often emphasized alongside these major developments (e.g., stadiums, parking garages, innovation districts). For instance, developers would promise "green space" as they were building new medical centers in Detroit and Cincinnati, but details of what the green space would include were often sparse. Another example is in Cincinnati -- when the city was leading the construction of a new soccer stadium, they also redeveloped two nearby parks to beautify the neighborhood. This "greenwashing" of development helps speakers of the dominant discourse perpetuate ideas about what urban

development should look like and encourage the creation of a green city, despite the fact that in many instances the promised green space failed to materialize.

Jobs. In a similar vein, jobs were also important to the future of each of the cities, particularly the transition to the green economy and training residents for the green workforce. One of the main goals of the *Green Cincinnati Plan* for example, is training 4,000 residents for green economy jobs by 2028. Similarly, Cincinnati mayor Aftab Pureval argued that for the city to "meet its full potential," it would need to "build an economy around clean energy and innovative green jobs."[1] Outside of green jobs, across each of the three cities, jobs associated with construction projects or development of new business districts were also heavily emphasized. In general, when talking about the benefits of an investment, speakers of the dominant discourse would cite job creation as one of the most important outcomes. However, as one newspaper article explained, "A large portion of the area's permanent jobs won't have anything to do with the new technology or the digital future as the district's marketing may imply."[2] Rather vast number of jobs being created in this Cincinnati business district were lower wage employment in retail, food, and the service industry.

Housing. The fifth sub-strand was housing, with an emphasis on the loss of affordable housing in each city and in some instances, increasing gentrification pressures. The dominant discourse tended to focus on new housing developments and how they would help the city continue to grow and meet their sustainability goals by creating higher density urban areas.

Green space. The final sub-strand was green space. Each of the cities is currently in the process of or has recently overhauled their waterfronts, creating new parks and amenities along the waterways. In addition to riverfronts being sites of redevelopment, the dominant discourse often discussed improvements to existing parks and the construction of new major parks, which

were regularly described as "the jewels of the city."[3,4,5,6,7] Additionally, green infrastructure was frequently discussed as an opportunity to address ongoing flooding issues from aging sewer infrastructure in Detroit and Cincinnati and increasing sea level rise in Providence. These investments were touted as environmentally-friendly opportunities to deal with flooding while also beautifying and greening the city.

Dominant Discourse Strand 2: What are the benefits of investing in the city?

The second strand of dominant discourse emphasized the *benefits* of investments. In particular, speakers of the dominant discourse often described real or perceived benefits which residents (and the city more broadly) would experience from investments that were being proposed. Strand 2 can be divided into four sub-strands: environmental benefits, economic opportunities, quality of life, and preparedness and resilience. Figure 5 illustrates the proportion of each sub-strand for each city. There are two graphs included for Detroit. Vacant land was discussed in Detroit more often than the other two cities, giving the impression that environmental benefits are more frequently talked about in Detroit. However, when separating vacant land into its own category, it becomes clearer that economic benefits are stressed more than environmental benefits. As will be discussed in further detail later, vacant land was framed as an economic opportunity for the city to capitalize on, rather than a purely environmental issue.

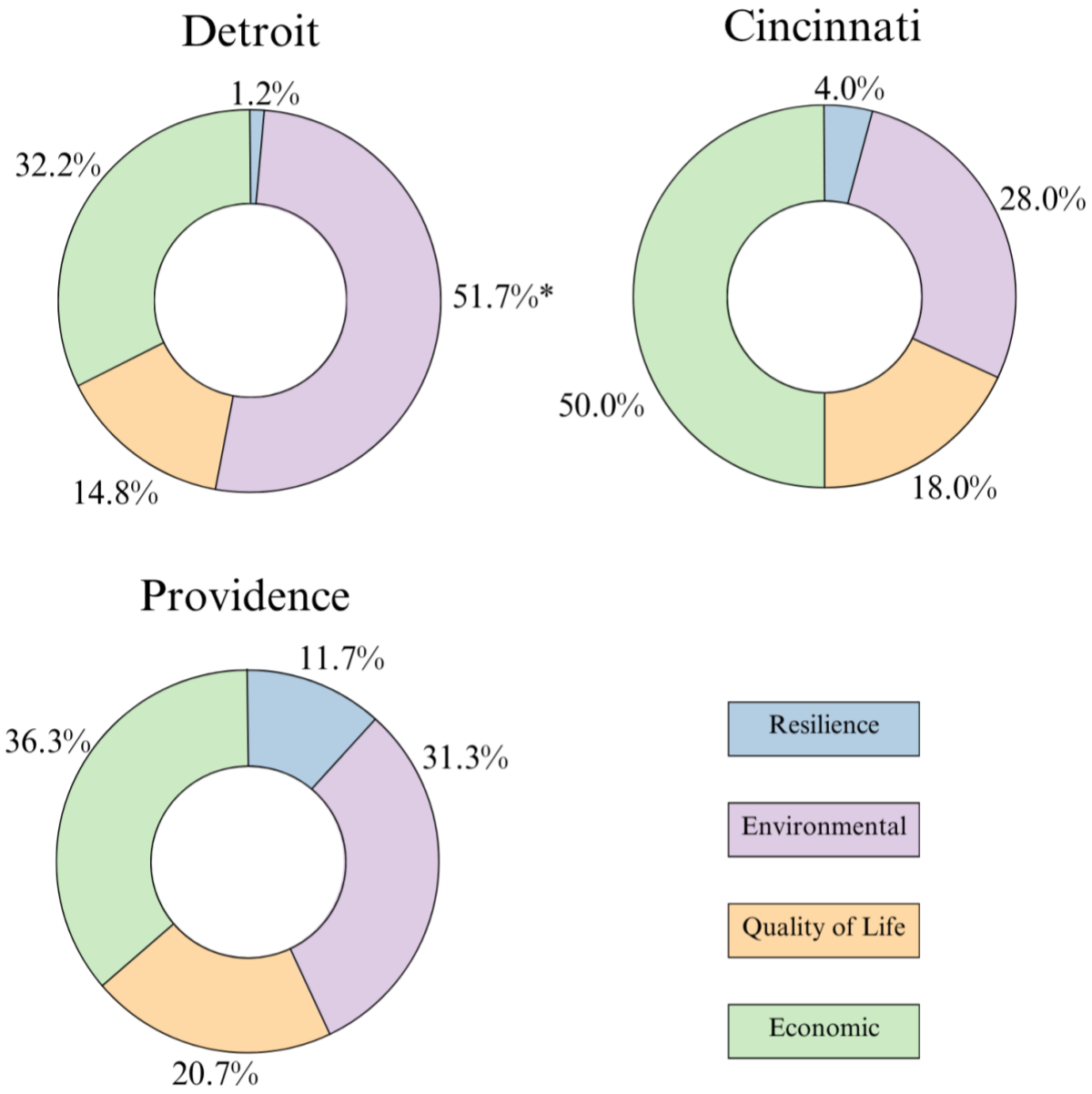

Figure 5: Strand 2 sub-strands for each city. *29.3% of environmental codes in Detroit are referring to vacant land.

Environmental benefits. Codes within the environmental benefits sub-strand included beautification, environmental restoration, remediating blight, and vacant land. In all the cities, the discourse focused on the benefits of cleaning up pollution and brownfields. In Detroit in particular, this included dealing with blighted housing and vacant land. Ultimately, the goal was

to remediate environmental issues and put land to "more productive use."[8,9,10,11] In other words, the natural environment was frequently described as something in need of cleaning up and remediating, in order to create spaces for future investment and development. Land restoration and the construction of new parks were often viewed as key drivers of economic growth in the three cities.

Economic benefits. When it came to the economic opportunities investments would create, speakers of the dominant discourse tended to emphasize potential new jobs for residents. In addition, speakers highlighted how new green amenities and taking climate action could revitalize their city. In doing so, this revitalization would contribute to economic and population growth by attracting new residents who might be seeking a more sustainable lifestyle.

Quality of life. The third sub-strand was quality of life, which represented statements about how investments being made would contribute to better physical and mental health outcomes for residents, or would generally improve the experience of living in a given city. Frequently speakers of the dominant discourse described making communities spaces to "live, work, and play," by investing in new parks and recreation opportunities, new bike trails, or stabilizing neighborhoods which had previously received little investment.

Preparedness and resilience. The final sub-strand centered on preparedness for future extreme events and how each city could become more resilient by investing in infrastructure and climate actions now. In Cincinnati and Providence, resilience took on the more conventional definition in the climate space: being able to deal with the shocks and stressors of a warming climate. In Detroit, resilience was often used to describe the residents of the city, implying that resilience is an inherent quality Detroiters have cultivated in the last decade, leading to the city's comeback. For example, one developer described Detroit residents during the city's bankruptcy,

saying “They didn’t talk about giving up. They talked about how this city has many great things and it can be great again. That resiliency, that toughness, it was impressive. I wanted to be part of it.”[12] However, there was little emphasis from the dominant discourse on the importance of becoming more resilient to climate impacts that Detroit already faces, such as flooding during heavy rainfall events, or the government’s role in creating that resilience.

Functions of the Dominant Discourse

In addition to analyzing the messages present, discourse analysis also pays attention to *how* arguments are being made across the discourse. Speakers of the dominant discourse used a variety of rhetorical functions to make their arguments more effective. These functions are presented below, in order of most to least frequently used. Additionally, figure 6 shows the breakdowns of function usage for each city.

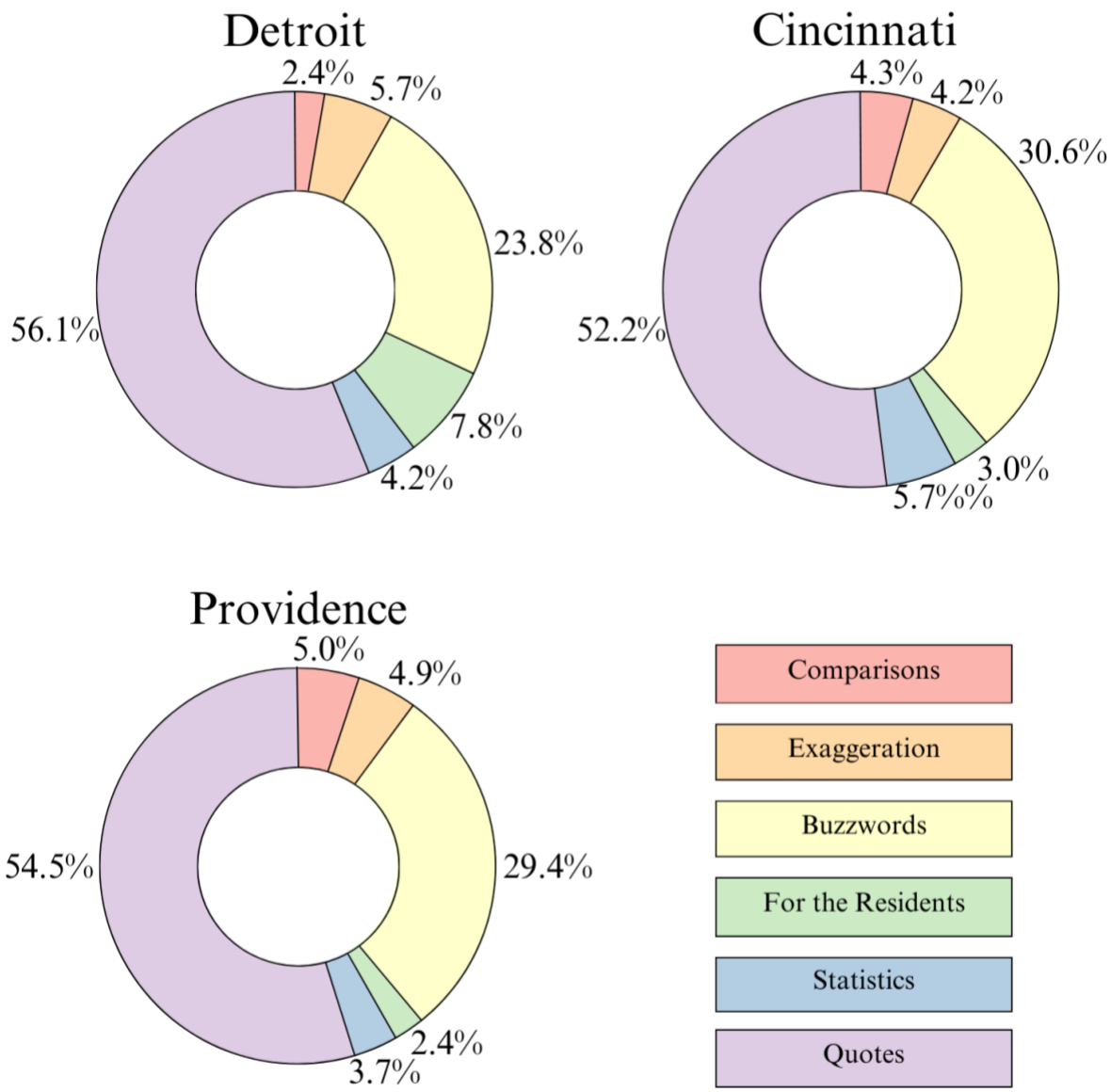

Figure 6: Percentage of discourse functions used in each city.

Function 1: Quotes

One of the most used functions was to include quotes from various sources to support the overall message and lend legitimacy to messages. Developers, local government employees, politicians, partners, and outside experts were quoted most often. Quotes from these "boosters"

of dominant discourse were supportive of whatever message was being shared, helping to support the narrative with little criticism or pushback present (Collins, 2020). Among developers, particularly in Detroit, the sentiment was that they were providing the types of amenities that draw people into cities, helping to grow the local economy, as the following quotes show:

> "More now than ever before, people are looking for dynamic, walkable, neighborhoods that have great places to work, mixed-income living options and an abundance of culture, dining, and retail in close proximity." – Stephen Ross, chairman of Related Companies, a global real estate investment firm heavily involved in development of the Detroit Center for Innovation[13]

> "By accelerating our investments in important neighborhood infrastructure and new mixed-use development, we will stabilize and develop dozens of underutilized blocks, create more jobs more quickly and allow the city to spend public funds on other priorities." – Chris Ilitch, CEO of Ilitch Holdings, which is responsible for Little Caeser's Pizza, the Detroit Red Wings, Detroit Tigers, and MotorCity Casino[14]

Other prominently quoted entities included politicians, both at the local level and state or federal. Locally, quotes would feature someone explaining why a certain project was needed, and the benefits it might bring. Quoted state or federal politicians would emphasize the big picture benefits both to the community and also the state overall.

The final type of quotes used came from city partners or other outside entities like universities. Partners were typically local non-profits or funders of projects (e.g., foundations) but also included state agencies. One example from Providence underscores how partners play a role in encouraging park development:

> "Most people live in cities. They do not live near a national park. They do not live near open space. If we're going to have recreation and open space, then we need to make the most of what we have in our cities, because that's where everyone is." – Alicia Lehrer, Woonasquatucket River Watershed Council[15]

Outside experts and university researchers were also frequently quoted, typically to provide specialized information. One University of Cincinnati planning professor was quoted to support the construction of a new soccer stadium in the West End, saying "Downtown arenas can spur downtown revitalization, which I think is a good thing."[16] In general, these experts were conveyed as a non-biased or third-party source, though they would more often than not be supportive of the dominant discourse rather than critical of it. Overall, quotes were used within the dominant discourse to give credibility while supporting the narrative that economic development and urban greening would benefit the three cities.

Function 2: Buzzwords

Speakers of the dominant discourse used multiple common terms, which I describe as "buzzwords," to signal their intentions for investing. The first buzzword was *equity*. To truly have equity in economic development decisions would mean the most vulnerable communities are prioritized and receive more investment or support than well-off areas of a given city. I describe the use of equity as a buzzword when its usage is incorrectly applied. In some instances, people would say equity but then describe equality. For example, the Cincinnati Vice Mayor Jan-Michele Kearney, described her vision for the city as "a tale of one city, a tale of equity for all, where zip code does not determine opportunities or life expectancy."[17] Another example comes from the manager of the Detroit Working with Lots program, who said "When communities come together to develop new skills and promote equitable land reutilization, economic growth, and neighborhood development, it helps improve the quality of life for all Detroiters."[18] Here, these leaders describe an outcome where *all* residents benefit or experience investment in their communities. Other times, equity was used as an adjective, without context for what equity

means in a given situation. For example, the Detroit director of housing and revitalization said, "We are working every day to make sure neighborhood redevelopment is equitable and includes space for people of all incomes and backgrounds."[19] This is a similar use to those mentioned earlier, as development is described as equitable, but including space for all types of people.

Finally, there were some examples of speakers using "equity" correctly. In Cincinnati, Mayor Pureval said,

> "Like other issues in our community, climate impacts are not created equal or distributed equally – many of them disproportionately impact our Black and brown communities and the communities with low wealth. Every step of the way it will be important to assess who will benefit and who will be burdened by the decisions we make."[20]

Here, the recognition of the disproportionate impacts facing certain communities and the need to address climate change while considering benefits and burdens, suggests that at some level, the city government understands how they will need to incorporate equity into decision-making.

In the same vein, speakers often used "environmental justice" to perform what is colloquially called "virtue signaling," defined as "the act of engaging in public moral discourse in order to enhance or preserve one's reputation" (Westra, 2021). For example, Mayor Pureval spoke about "using an innovative approach to address the affordable housing issue in Cincinnati, environmental justice, and equity."[20] The Cincinnati City Council claimed to make equity and environmental justice a priority by adopting the *Green Cincinnati Plan*, and in Rhode Island, the state General Assembly acknowledged "needing to do more on environmental justice."[21] Investments were often framed as improving environmental justice in cities. For example, energy efficiency upgrades to the largest buildings in Providence were described as "another step towards making Providence a leader in environmental justice."[22] In these cases, environmental justice is used to signal the city is aware of what makes for the "good and moral" decisions

Westra (2021) describes. However, it is unclear how cities will prioritize and invest in these neighborhoods above and beyond other areas.

Another buzzword was "resilience", which was predominantly used to describe how investments in climate infrastructure would improve the resilience of a given city. In Providence, for example, worries about future flooding "have led to calls for building resiliency across the state in order to protect residents from extreme weather events."[23] In Cincinnati, the *Green Cincinnati Plan* was described as "having a resilience component designed to help the city adapt to changes in weather patterns," and being a plan that would ultimately lead to a "more sustainable, equitable, and resilient Cincinnati."[1, 24] Similar to equity, resilience was often not well-defined. When used, statements about resilience implied future characteristics of the city, despite lacking details on ultimate goals.

The final buzzword was "revitalization." Speakers would talk about areas of the city that needed "revitalizing," implying these communities needed saving. For example, Tom Gores, the owner of the Detroit Pistons and leader of the development of a new hospital in the city, described his role in Detroit's revitalization:

> "I viewed this from the start as a 'community asset' that was uniquely positioned to participate in the continuing reinvention of Detroit and to be impactful in the lives of its residents. Our plan in Detroit has focused on bringing people and organizations together and creating meaningful partnerships that accelerate growth, create opportunity and contribute to the revitalization of the city."[25,26]

Also in Detroit, Mayor Mike Duggan spoke at the opening of a new park in the city, explaining the area before and after construction was completed:

> "For as long as I could remember, you came down Grand River and there was some old industrial building. There was a fence with barbed wire out there. You drove by this as an eyesore and you never gave it a second thought. And today, an acre and a half park. Everything from a sit-down restaurant to food trucks. It will be opened to everybody. The transformation of this space is nothing short of remarkable."[27]

Most often, it was low-income, Black neighborhoods that were deemed in need of revitalization, such as Over the Rhine or the West End in Cincinnati, Jefferson Chalmers in Detroit, and Olneyville in Providence.

Parks, bike lanes or trails, new developments, green infrastructure, and remediating blight were all mentioned as drivers of revitalization. In other words, these cities used revitalization to signal the transformation of an area from undesirable to desirable, often accompanied by significant investment in parks, green space, or other developments. The Detroit News for example, described the construction of a new park as "helping to create energy in a *lifeless* neighborhood," (emphasis added)[28]. This suggests that before city intervention, the neighborhood was unable to help itself or was otherwise void of activity, and it is only with the city's help and outside investment that areas can become attractive again. Another example comes from Cincinnati, where one article describes the Mount Auburn neighborhood as "an inner-city neighborhood whose fortunes have declined over time." However, proposed development of new housing and office space as well as investment in a nearby park are planned to "add more momentum to new developments in the neighborhood."[29] This function emphasizes how speakers of the dominant discourse are attempting to help their cities, which is potentially quite powerful but at times, but they may overlook unjust outcomes of investment.

Function 3: Exaggeration

Another function used was exaggeration, which acted to make investments seem more urgent by using extreme examples or language. Exaggeration was used when talking about funding, and the need to move forward on projects, as one local politician said,

> "We have to be able to start working to help clean things up now as opposed to waiting until the time is too late – now is the time to do it. We don't have time to wait until magical funds come out of nowhere."[30]

Urgency was also used when talking about investing in climate change adaptation measures and the need for action. Here, the threat of climate change was used to call for more investment, such as when Cincinnati Councilwoman Meeka Owens said "Failure to address this threat will mean that we leave a more dangerous world for our children and future generations."[20] Another local government member, Councilwoman Helen Anthony said, "We don't have the luxury of time when it comes to addressing climate change."[31] In these instances, the urgency of the situation, dealing with climate change, is emphasized to encourage rapid action and investment across the three cities.

Speakers of the dominant discourse also played up extreme outcomes or the scale of the opportunity before them. One industry member, when trying to argue against the development of a new bike trail, said, "We're talking eight feet between the moving train and the bike path. Railroad professionals are taught 30 feet between a moving train. I don't want to go home Saturday night having run over a kid."[32] This example shows how a worst-case scenario is used to argue against a proposed bike path, even if the outcome being described is unlikely. Other extremes included exaggerating the potential benefits of investments. For example, Mayor Duggan described the Joe Louis Greenway in Detroit as a trail that would "remove boundaries and connect families and neighborhoods across our city to a tremendous riverfront that residents will enjoy together."[33] Investments were also described as being "truly visionary"[34] or helping to create "one of the most vibrant neighborhoods in the nation."[13] These exaggerations make investments seem like entirely positive actions and may gloss over potential negative outcomes.

Finally, investments were often framed as "once in a lifetime opportunities," that cities simply "had to" act on.[35,36] When talking about a transportation project in Cincinnati, one state partner from Ohio Department of Transportation said, "this $3.6 billion dollar project [The Brent Spence Bridge reconstruction] creates a once in a lifetime opportunity for building and investing in a diverse workforce for this region."[36] Also in Cincinnati, a local CEO described climate tech as a "once in a generation opportunity to capitalize on,"[1] arguing the city should take advantage of incentives to shift towards the green economy. In Detroit, vacant land along waterways was described as "an unprecedented opportunity to become a leader in demonstrating the role green stormwater infrastructure can play in creating a healthier and more prosperous city."[37] In Providence, upgrading the 6/10 connector (a highway) was also described as a "once in a generation opportunity" that would "spur economic development."[38] This framing makes investments seem undeniably positive, and something the city "has to" take advantage of, again ignoring any potential negative consequences.

Function 4: "For the residents"

The fourth function used by speakers of the dominant discourse is what I describe as "for the residents." Here, speakers emphasize how their residents and communities will benefit from investments which are being made. One example comes from Cincinnati, where a park, Burnet Woods, was described as "a great asset that is used by UC students and the families who live in the area. Providing more amenities and better lighting would benefit everyone who uses the park."[39] Other speakers talked about parks and greenspaces being "community assets," that will "be uniquely positioned to be impactful in the lives of residents."[25, 26] In Rhode Island, the program manager of the Renewable Energy Fund described investments in increasing solar

capacity saying, “We’re really excited to provide this for these communities. It’s definitely a feel-good approach to the proliferation of solar.”[40] This function shows how speakers highlight actions with some public benefit as being done explicitly for residents, possibly to make new developments seem attractive. Usage of terminology that indicates provision of services or investment for the benefit of residents is a potentially effective way to detract from possible negative outcomes, such as those which disproportionately benefit wealthy investors and developers instead of residents.

Function 5: Statistics

The fifth function of the dominant discourse was the use of statistics. One way statistics were used was to show change over time. For example, the one article argued that the Strategic Neighborhood Plan improved Detroit neighborhoods because they

> “are already showing encouraging growth based on Census data. Population has increased in six out of 11 neighborhoods and residential vacancies have dropped in nine; incomes have gone up in all but one and poverty rates have gone down in all 11.” [41]

Statistics were also used to illustrate social and economic issues such as housing affordability, as one article from Providence states, “While the citywide median rent jumped 26.1 percent between 2000 and 2015, ‘potentially gentrifying’ Providence neighborhoods experienced a 47.8 percent average increase, nearly double the growth citywide.”[42] Rankings were also used to show how cities matched up and compared to others, such as when Cincinnati was “ranked the most sustainable metro area in the U.S. by Site Selection magazine in 2017 and 2018.”[43]

Specific to climate change, statistics were used to emphasize the urgency of the issue. For example, statements such as “A survey of 3,482 homes in Detroit found that 2,085 (54.26%) of them had flooded between 2012 and 2020,”[44] or “Flooding in Providence is largely about one

key measure: impervious cover. And as of 2020, that was nearly 65% of Providence."[45] Speakers of the dominant discourse also used statistics to showcase greenhouse gas emissions reductions that the different cities had achieved across sectors, making the case that future investment would further help reduce emissions.

Finally, statistics were used to communicate the impacts of climate change, making claims such as "Cincinnati's average temperature is likely to rise seven degrees by the end of this century."[46] In Providence, one newspaper wrote "Historically, Rhode Island experienced about nine days per year when the heat index was above 90 degrees. That number is expected to quadruple by midcentury and nearly double again by the end of the century."[47] Overall, statistics were a tool used to quantify potential risks and rewards, underscoring the need for investment or action in climate adaptation or urban greening. Using statistics operates in much the same way as quoting experts and university professors; by lending credibility to the statements through concrete evidence, the author can appear to be disseminating unbiased messages.

Function 6: Comparisons

The final function used by the dominant discourse was comparisons to aspirational cities. Speakers would compare proposed projects in their city to similar projects in other places, emphasizing the benefits that other cities had experienced. Some examples include talking about how innovation districts, bike trails, stormwater utilities, or capping highways to create parks had positive impacts in other communities. For example, a Detroit newspaper stated, "The Beltline in Atlanta and the Riverwalk in San Antonio have both generated billions in revenue and Detroit hopes to see the same."[48] This quote highlights how Detroit is approaching investing in its riverfront to hopefully experience the economic benefits that other cities have while further

proving to readers that this investment is a worthwhile idea. Other comparisons were used to show how proposed city actions were commonly found in other places, possibly to signal that actions were safe. For example, one article from Providence describes how floating wetlands are being used around the country to clean up dirty waterways, implying that floating wetlands being implemented in Providence could do the same. This function may be used by speakers of the dominant discourse to convince readers that if a solution worked elsewhere, it will work in their city.

Functions of the Non-Dominant Discourse

The non-dominant discourse is less cohesive, and therefore harder to describe. In the following chapters, city-specific non-dominant discourses will be further described, as the messages speakers are sharing is often much more localized than the dominant discourse. However, the non-dominant discourse does use similar functions across the three cities. Similar to the dominant discourse, exaggeration, quotes, and statistics were used by the non-dominant discourse to emphasize key arguments.

Function 1: Quotes

Quotes from a variety of speakers were used to support arguments within the non-dominant discourse. Primarily, these included environmental organizations such as local chapters of the Sierra Club, local community organizations working on social issues, and residents speaking in support or against issues in their communities. Although their messages differed across cities, these quotes were used to highlight opinions outside of the dominant discourse, for example, showing the impacts of gentrification and increasing housing affordability issues, the

impacts of flooding and extreme heat or cold on residents, or resident pushback on proposed developments. Specific messages and narratives for each city are described in later chapters.

Function 2: Exaggeration

Speakers of the non-dominant discourse also used exaggeration and urgency to get their points across. For example, Chris Jackson, a resident in Detroit and leader of an advisory council working to negotiate a neighborhood benefits package with a developer explained, "This is a historic agreement, truly part of something that will be transformational. This can be a template for larger projects that come behind this one."[49] In this instance, Jackson is describing the community benefits agreement he helped to negotiate, while also emphasizing the importance of such agreements for residents' well-being and protection during major development projects. In Providence, a local resident is quoted describing the benefits of rain gardens along streets, arguing that doing so would "transform the neighborhood," by adding more greenery and helping to reduce stormwater runoff.[50]

In addition to exaggerating potential benefits, speakers of the non-dominant discourse also emphasize the urgency of acting on climate or the environment, particularly given the momentum that was present during the Biden Administration. For example, Priscilla De La Cruz, director of government affairs at the Audubon Society of Rhode Island explained, "We know what a historic moment it is to have all this funding. We don't want to see the state miss out on these opportunities."[51] Just as the dominant discourse uses exaggeration to show how their proposals and ideas are important and necessary, so too, do speakers of the non-dominant discourse.

Function 3: Statistics

Finally, the non-dominant discourse also frequently used statistics to argue points. For example, Daniel Washington, founder of NW Goldberg Cares, a non-profit in Detroit, used statistics to describe changes he had witnessed in the neighborhood over time, saying:

> "Communities that are oftentimes segregated are marginalized and oftentimes lack resources and infrastructure. The neighborhood itself is slowly starting to change. As of 2019, it was 94% Black, 2% White, 1% Latino and 3% unspecified other. But the areas around it, including LaSalle Gardens, New Center and Woodbridge, are changing even faster, largely due to an influx of millennials and Wayne State University students." [52]

Washington continues to explain the impacts these changes are having in his community, but ultimately, his argument that the neighborhood is changing is supported by his use of statistics.

Statistics were also used to show the benefits of certain actions or goals to aim for, often related to environmental decisions. In Cincinnati, one resident described a recent Sierra Club meeting where they learned that "95% of single households would pay less than they pay now and 25% would pay at least 42% less," using rainwater capture instead of treating combined stormwater runoff and sewage.[53] In Detroit, Lionel Bradford, president of the nonprofit Greening of Detroit, used statistics to argue that the city should be planting more trees, saying that "A city this size should be at 40% in terms of tree canopy coverage. The city is currently at 24% and about 400,000 more trees are needed to get to 40%."[54] Similar to the dominant discourse, statistics were used throughout the non-dominant discourse to show change over time. Statistics were also employed to show potential savings from investments or quantify progress that needs to be made on environmental goals.

Summary

Overall, the speakers of the dominant discourse used their influence to broadcast a vision for each city with investments across multiple sectors. In sharing these visions, speakers of the dominant discourse emphasized social, environmental, and economic benefits of investments, arguing that residents' quality of life would be improved via green economic development. In pushing these narratives, the dominant discourse inadvertently reflects beliefs about what makes land valuable in each city, and the need for outside actors to "save" certain neighborhoods. In doing so, the discourse further separates "valuable" areas of each city (e.g., those that draw in new, often wealthier residents) from areas deemed in need of revitalization. In arguing that land should be put back to productive use, whether that be green infrastructure or future development, the dominant discourse reflects how racial capitalism shapes the growth machine, diminishing neighborhoods of color and uplifting spaces constructed in the white ideal. Although the non-dominant discourse attempts to resist these characterizations of neighborhoods needing saving, the lack of a cohesive message from activists and non-profits across the three cities presents a challenge for successfully countering the dominant discourse.

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Chapter 4: Detroit Results

Detroit Context

Detroit, Michigan, is known for being the center of the American automotive industry, and the city has long been home to the "Big Three:" Ford, General Motors, and Chrysler. With the growth of these companies in the early 1900's, alongside the Great Migration, Detroit experienced a boom in immigration and a rise in racial tensions (Verney, 2024). Racist housing practices such as racially restrictive covenants and redlining further exacerbated tensions after World War II. Black neighborhoods were also decimated by the construction of new highways in pursuit of "urban renewal" (Herstad, 2017). In the same time period, the major automotive manufacturers began moving production to the suburbs, with 25 new plants built between 1945 and 1957, none of them inside the City of Detroit boundaries (Brooker, 2023). This decentralization of production continued throughout the following decades, with companies moving operations to other U.S. states. As a result, the population in Detroit decreased from nearly two million in the 1950s to approximately 700,000 in the early 2000s (Economy League of Philadelphia, 2022). This population shift left behind a predominantly low-income, Black city (Figure 7), and resulted in major land use changes – nearly 20% of the city (24 square miles) is now vacant land (Detroiters Working for Environmental Justice, 2017).

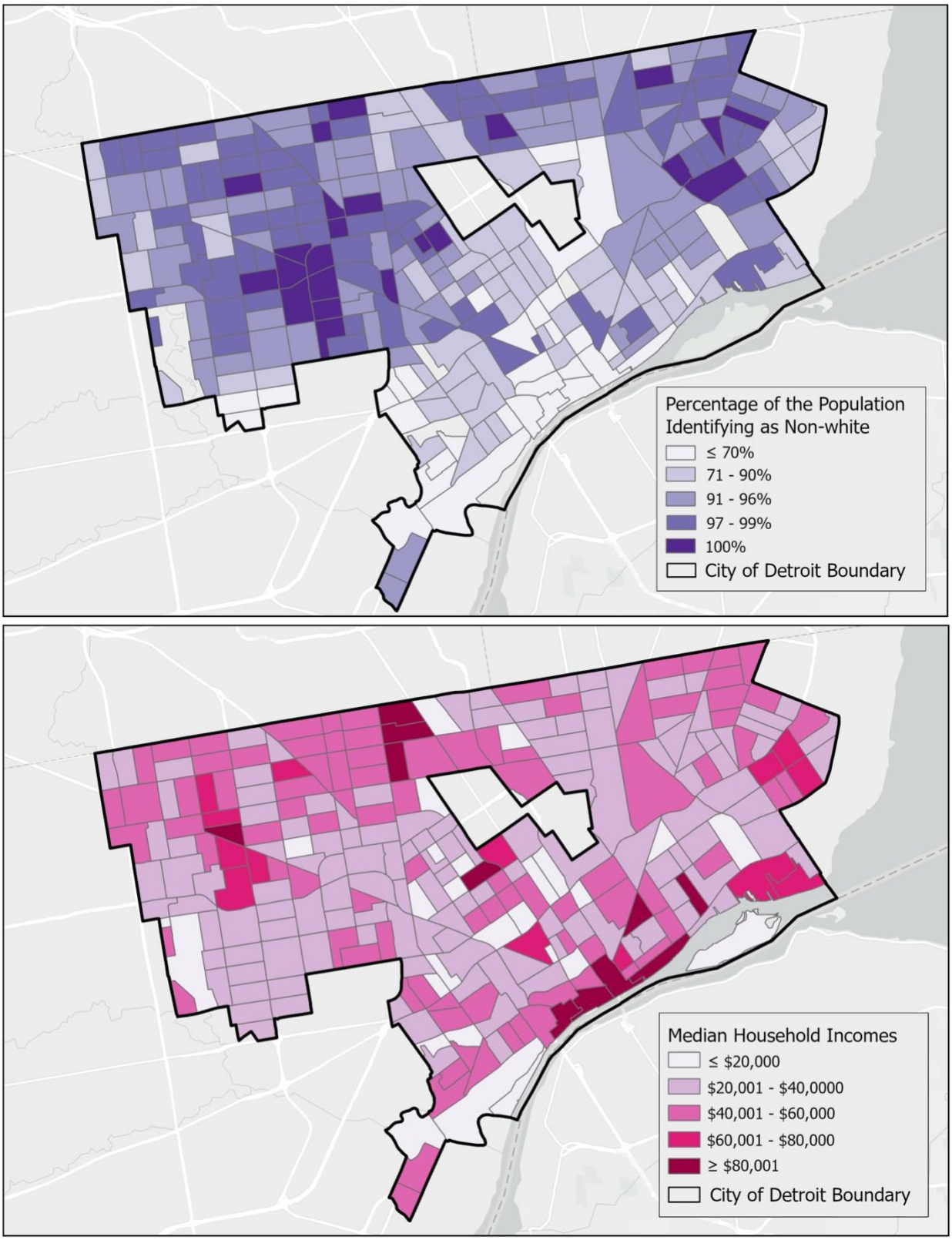

Figure 7: Detroit Census tracts showing non-white population (purple) and median incomes (pink).

This decrease in population also led to a significant decline in tax revenue, leaving the city with a $300 million dollar deficit in 2005. Budget problems continued through the Great Recession and by late 2011, the city was facing "probable financial distress" (Peck & Whiteside, 2016). In 2012, the city agreed to increased oversight by the state of Michigan in exchange for help with its financial situation. After a financial review at the end of 2012, Governor Rick Snyder appointed an emergency manager who effectively took over control of Detroit's fiscal resources, overruling the mayor and city council on financial decisions. Finally, in July 2013, Detroit formally declared bankruptcy, leading to over a year of negotiations about how the city would move forward (Reuters, 2014). Consequently, residents experienced extreme reductions in city services (Peck & Whiteside, 2016).

Over a decade after declaring bankruptcy, the city remains incredibly under-resourced. As one interview participant explained: "There's not ever enough resources. But we have a lot of community partners, and a lot of non-profits in Detroit exist because the city in the past had not been able to provide the resources that communities need." Leading up to and during bankruptcy, the city reduced the services it was providing, for example only maintaining a few dozen of Detroit's over 300 parks (Detroit Parks and Recreation, 2022). Non-profits stepped in to fill the gaps created by a lack of funding and have remained actively involved throughout the city when it comes to providing basic services and resources.

Current Climate and Environmental Challenges

Some of the major challenges that residents contend with relate to transportation, housing, energy burden, water affordability, and air quality. In recent years, the city has started making efforts to address these issues. In 2017, the organization Detroiters Working for

Environmental Justice was commissioned to create the city's first Climate Action Plan. This document outlines city objectives in five topic areas: (1) solid waste, (2) public health, (3) businesses and institutions, (4) parks, public spaces and water, and (5) homes and neighborhoods (Detroiters Working for Environmental Justice, 2017). In 2019, the city published their Sustainability Action Agenda, focusing on creating an "equitable green city" with "clean, connected neighborhoods, affordable quality homes, and healthy, thriving people" (Detroit Office of Sustainability, 2019). Finally, in 2021, the Detroit Office of Sustainability created the Detroit Climate Strategy. This document emphasizes transitioning to clean energy, sustainable mobility, energy efficiency, and resilience to flooding, heat, and air quality challenges (Detroit Office of Sustainability, 2021).

The Sustainability Action Agenda explains that over a quarter of Detroiters do not have a personal vehicle. Without access to a personal vehicle, it can be difficult for residents to access employment and amenities throughout the city. Access is further complicated by the city's lack of adequate public transportation options; a bus system that is often unreliable and faces challenges with route connectivity is the only available option in many parts of the city (Detroit Office of Sustainability, 2019). To address these concerns, the city is investing in bike trails and infrastructure, most notably the Joe Louis Greenway, a 27.5-mile loop around the city (City of Detroit, 2025a). The Detroit Climate Strategy also includes investments in electric vehicle charging infrastructure and the creation of car sharing services. Despite knowing that many residents lack access to personal vehicles, city strategies predominantly rely on expanding access to personal electric vehicles as a source of emissions reductions. This is one example of a proposed climate action which sounds positive in theory but overlooks the reality of many Detroiters who lack the resources to go electric. Rather, the city could consider investing in more

reliable and expanded public transportation options, but as many interview participants alluded to, the city's past still influences how planning is done today.

Detroit's automotive industrial history plays a prominent role in how the city envisions adaptation actions in the transportation sector. As the Climate Strategy explains: "Retaining Detroit's competitive advantage in mobility innovation and the auto industry is part of transitioning into a cleaner future and ensuring economic growth and regional vitality," (Detroit Office of Sustainability, 2021, pp. 14). One interview participant also described this relationship, explaining:

> "I think maybe where the challenge lies is that, obviously, we're a manufacturing city, that's our heritage and that's what the mayor has kind of gone strong on and attracted a lot of reinvestment in the city in terms of auto parts manufacturers."

Moving forward, Detroit will have to decide how it wants to balance economic development with potential negative environmental impacts, and just how much transitioning to a more sustainable city matters to them in the process.

Access and availability of quality, affordable housing is another key issue in Detroit. Many of the city's homes were built before 1940 and lack sufficient weatherization and energy efficiency measures. As a result, half of Detroiters spend more than 10 percent of their income on utilities alone (Detroit Office of Sustainability, 2019), representing a severe energy burden. As the city grows, affordable housing supply has not increased at the same rate as market-rate housing stock, leading to concerns over gentrification and displacement alongside new developments. Housing is a key issue in each of the city's climate plans, but strategies to develop and retain affordable housing are limited, as are those to increase the number of residents with weatherized homes. Besides better coordinating resources or creating financing programs for

residents to pay for housing retrofits (Detroit Office of Sustainability, 2021), it is unclear how Detroit plans to address the significant energy burden challenges residents are facing.

Finally, air quality and environmental pollution are major issues in certain parts of the city, as are vacant land and blighted homes. Some of Michigan's most polluted zip codes are located in southwest Detroit where there are hundreds of oil refineries and other heavy industrial facilities. These neighborhoods have a disproportionately high number of residents suffering from chronic health problems (Whyte, 2018). Plans to address air quality issues center around reducing truck transportation and creating larger buffers between industry and residential areas (Detroit Office of Sustainability, 2019, 2021; Detroiters Working for Environmental Justice, 2017). The Sustainability Office also attempted to place air quality monitors in the most at-risk neighborhoods, but city leadership did not allow them to go through with the program. An interview participant explained,

> "When we started vetting it internally, there was a lot of opposition to it because they were like "who's responsible once there is a bad air quality day?" stuff like that, kind of classic government CYA stuff. So, we just kind of didn't do it, and all we would have been doing is allowing nonprofits to put monitors on our buildings. It's just an example of how the fear of a bad story kind of outweighed a potential public benefit of knowing better what your air quality is in your neighborhood."

This example highlights how even if one city department has the best intentions, sustainability and climate actions may be blocked by others if these are not priority issues across the city government.

At the same time, Detroit contends with multiple natural hazards and challenges which will be exacerbated by climate change in the coming years. Many neighborhoods lack adequate tree cover and as a result, experience higher temperatures than other parts of the city (Detroit Office of Sustainability, 2021). As one interview participant explained, this lack of tree canopy cover is due to invasion of the emerald ash borer, which killed many of the city's ash trees,

combined with a lack of plantings during the city's bankruptcy years. Discrepancies in tree canopy are exacerbated by the urban heat island effect, and many low-income residents experience higher temperatures inside their homes than other residents. Extreme heat exposure is expected to increase into the future, with the average number of days with temperatures above 90 degrees Fahrenheit rising from 10 per year to 47 by 2050 and 84 by 2100 (Detroit Office of Sustainability, 2021).

Additionally, Detroit's aging sewer infrastructure has contributed to flooding issues, sewer overflows, and public health concerns. These issues are likely to get worse as precipitation events are expected to become more intense in the future, potentially overwhelming the stormwater and sewer system's capacity (Detroit Office of Sustainability, 2021). In a survey of Detroit residents, over half reported having flooding in their home between 2012 and 2020, with impacts particularly concentrated in communities with lots of low-income renters.[1] City leaders are prioritizing the installation of green infrastructure such as rain gardens and bioswales or the planting of more trees in areas that experience flooding at higher rates. Major projects, such as one in Rouge Park, have included infrastructure investments to increase the capacity of the sewer system and reduce runoff challenges.[2] Moving into the future, Detroit has the opportunity to adapt to climate change while also addressing the very real social inequality that remains in the city.

The Role of Billionaires

In an effort to increase the city's tax base, Detroit has pursued new avenues of economic growth and development following its bankruptcy, led by wealthy outside investors (map of all investments discussed in this chapter in Figure 8). These investments are centered around two

major players. First, is Dan Gilbert of Rocket Companies (previously known as Quicken Loans) and his firm Bedrock. Second, is the Ilitch family, founders of Little Caesars Pizza, owners of the Detroit Red Wings hockey and Detroit Tigers baseball teams, as well as heads of Ilitch Holdings and its associated Olympia Entertainment. These actors, and their purchasing of land in downtown have significantly reshaped the city over the past decade, starting with the Ilitch family constructing a new arena for the Detroit Red Wings and Detroit Pistons. Now known as Little Caesars Arena, the arena's groundbreaking occurred in 2014, and it officially opened in 2017. The arena cost $862.9 million dollars to build, including $300 million in public financing from the city government.[3] Despite the city declaring bankruptcy before construction began, Governor Snyder and the city's emergency financial manager decided to continue with the arena, because it "made good economic sense" for Detroit (Peck & Whiteside, 2016). Alongside the arena, the Ilitches and Olympia Entertainment proposed the creation of the District Detroit, "a world-class sports and entertainment district" in the heart of downtown. The planned District would include 700 residential units, 100,000 square feet of retail, a hotel, and over a million square feet of commercial space, all spread over 10 buildings.[4] This district has failed to materialize however, and much of the area is still covered in surface parking lots over ten years later.[4]

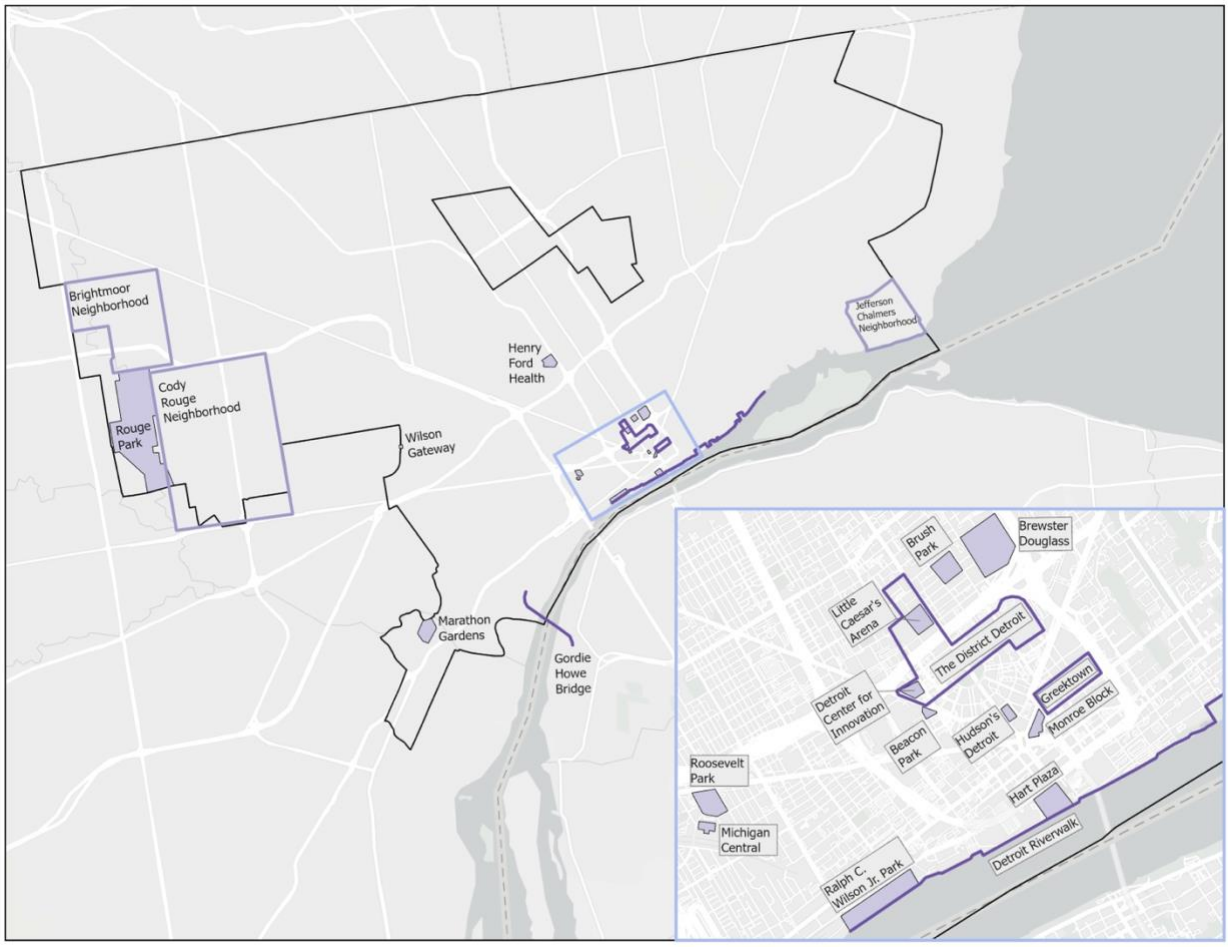

Figure 8: Investments, neighborhoods, and parks in Detroit discussed in chapter 4.

More recent developments have revolved around Dan Gilbert, particularly his soon to be completed Hudson's Project, described as a "global destination" and "landmark development that embraces the history and spirit of Detroit while providing a venue for the people, companies, and ideas that define our future," (Hudson's Detroit, 2025). After spending 1.4 billion dollars (with $60 million in tax abatements), Gilbert's firm will have constructed the second-tallest building in the city, full of office space, retail, hotel space, and residential units.[5] Gilbert's company Bedrock has also received significant tax incentives or abatements for other housing projects, including the $300 million dollar Brewster Douglass project,[6] as well as projects in Brush Park[7,8] and the Monroe Block.[9]

Gilbert and Bedrock are also heavily involved in the development of the Detroit Center for Innovation alongside the University of Michigan and its mega-donor Stephen Ross (owner of the Miami Dolphins, after whom the U-M business school is named). This $250 million dollar center is described as

> "a world-class research, education and entrepreneurship center designed to advance innovation and talent-focused community development to propel city, region and statewide job creation and inclusive economic growth by stimulating economic development in the city of Detroit" (University of Michigan, 2023).

The center will be developed by Gilbert's companies and then donated to the University of Michigan, who will not pay taxes on the building.[4]

Other major projects ongoing in the city include three billion dollars in investment from Michigan State University and owner of the Detroit Pistons, Tom Gores, to build a new Henry Ford Health System hospital dubbed the "Future of Health" project. The development will be home to research space for the university and an expansion of the existing Henry Ford Hospital, including the construction of a new, 20-story patient tower.[10,11] Ford Motor Company also purchased the abandoned Michigan Central train station in 2018 to be the center of their new hub in the Corktown neighborhood. Ford has spent nearly one billion dollars on the station and nearby Roosevelt Park to

> "position Michigan at the forefront of an inclusive, sustainable, and electrified future of mobility, while housing global tech giants like Google, who will be making additional investments in the city's tech workforce."[12]

Corktown is a predominantly Black neighborhood which is now experiencing significant gentrification due to Ford's presence in the area. Finally, the Gordie Howe bridge project will serve as a new international border crossing between the United States and Canada. The bridge will be publicly owned, as opposed to the current Ambassador Bridge which is privately owned

and operated by billionaire Matthew Maroun. The Gordie Howe bridge is expected to facilitate the crossing of over 25,000 vehicles per day upon its opening.[13,14]

In the eyes of speakers of the dominant discourse, developments from wealthy investors are considered the driving force of Detroit's economic growth. For example, Dan Gilbert's Hudson project is described as "profoundly impacting the local economy" by "creating jobs for local Detroiters, expanding the city's economic base, and contributing significantly to local public expenditures."[6] The new Henry Ford Hospital is portrayed similarly. Tom Gores explains how the plan in Detroit is to "create meaningful partnerships that accelerate growth, create opportunity, and contribute to the revitalization of the city."[15,16] Investment from the Ilitch family and Olympia Entertainment is called "an excellent platform for expanded growth in the city" and claims to "bring new housing and jobs while spurring extensive economic opportunity for Detroiters."[17] Despite these claims to dramatically make over the city, the signature investments of the last decade have had a limited number of benefits for existing residents. Instead, they have resulted in the concentration of wealth in downtown Detroit while the rest of the city is still commonly described as vacant or in need of revitalization.

Parks as a Means for Economic Growth

Additionally, the city has been investing in its parks system, with the help of outside foundations and private philanthropists (map of all Detroit parks in Figure 9). For example, when renovating Michigan Central, Ford also redeveloped Roosevelt Park outside the train station. DTE, the only electric and gas provider in southeast Michigan, constructed Beacon Park outside of their downtown headquarters, to "draw downtown's renewal northwest along Grand River

Avenue." At the park's ribbon cutting ceremony, Duggan and CEO of DTE Gerry Anderson also explained how "business participation in public works is key to the revitalization process."[18]

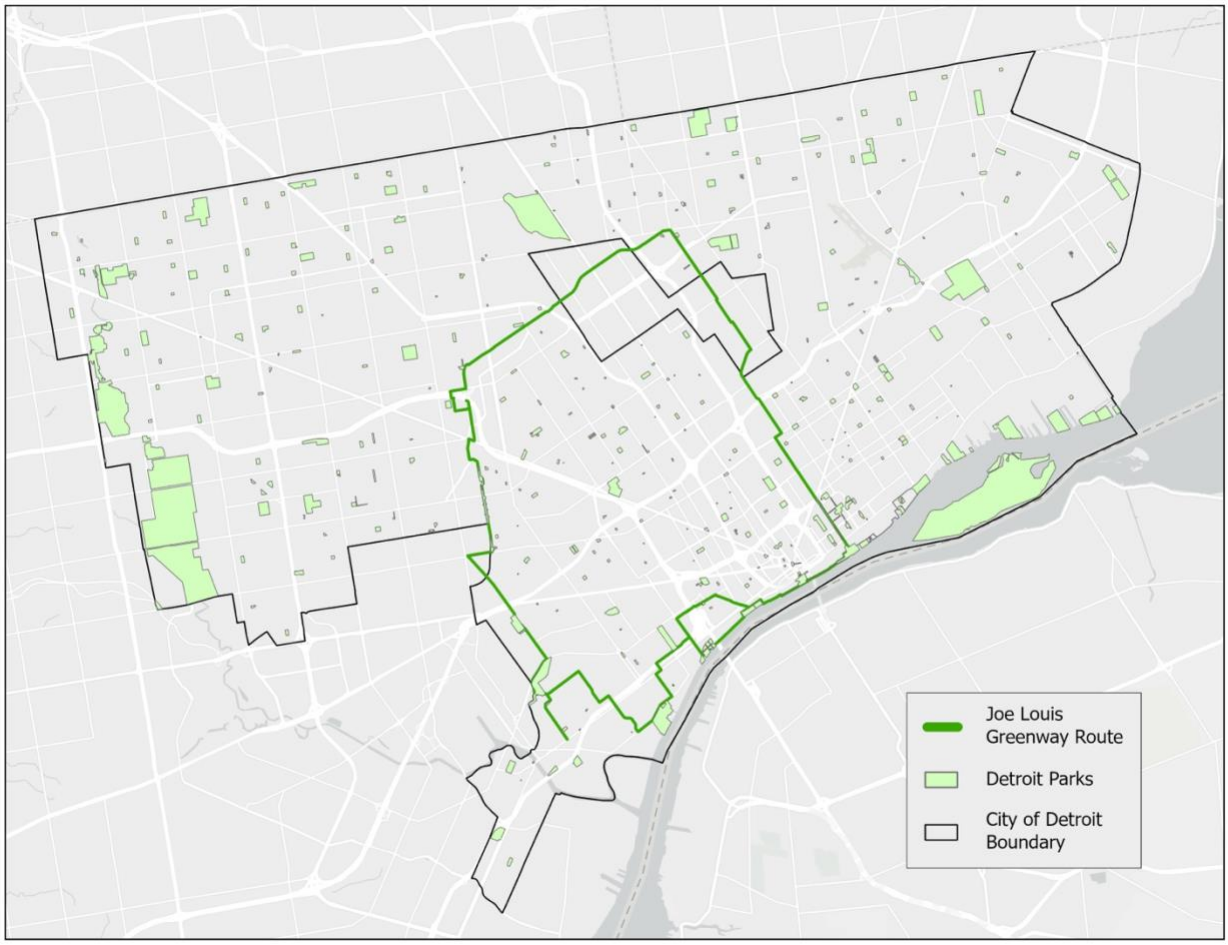

Figure 9: City of Detroit parks and Joe Louis Greenway route.

The largest investment in parks thus far has been along the Detroit Riverfront, with over a billion dollars from public and private sources going into new public spaces along the water. Formerly industrialized land, the riverfront is being transformed into a pedestrian and biking path with multiple parks along the route, with the goal being "complete revitalization from bridge to bridge."[19] The bridges here are the bridge to Belle Isle (another park) and the Ambassador Bridge, a span of approximately six miles. Along the riverfront, new parks are being built, the

largest of which is the Ralph C. Wilson Jr. Centennial Park, funded primarily by the Ralph C. Wilson Jr. Foundation. The 22-acre destination park opened in 2025 with a new playground, water garden, and indoor sports facility (Detroit Riverfront Conservancy, 2025). Further south along the Detroit River, Hart Plaza received nine million dollars in upgrades using pandemic-relief funding, making the park more accessible and fixing broken concrete throughout the plaza.[20] Overall, the riverfront is frequently described by city leaders as a gem for Detroit, one which will "help boost the local economy and improve resident access to green space.[21]

The Joe Louis Greenway is another major investment ongoing in the city. As one planner on the project explained in an interview, the vision for the greenway was started by residents in 2007, to convert a decommissioned railway, the Detroit Terminal Railroad, to a multi-use trail. According to this planner, the city became more heavily involved after receiving state funding to purchase an eight-mile stretch of the railway. Around the same time, Detroit also received five million dollars from the Ralph C. Wilson Jr. Foundation to create a visioning framework for the greenway and construct the Wilson Gateway, a park which includes the main trailhead. At the time of the interview, the city had eight miles of the trail completed, including previously existing segments along the Riverwalk and Dequindre Cut, seven miles under construction, six funded but not started construction, and six unfunded miles (Figure 10). The construction of the greenway comes with lofty goals, and it is often described as an opportunity to address resident transportation challenges and park access. As Mayor Duggan said, "the greenway will remove boundaries and connect families and neighborhoods across our city to a tremendous riverfront that residents will enjoy together."[22,23]

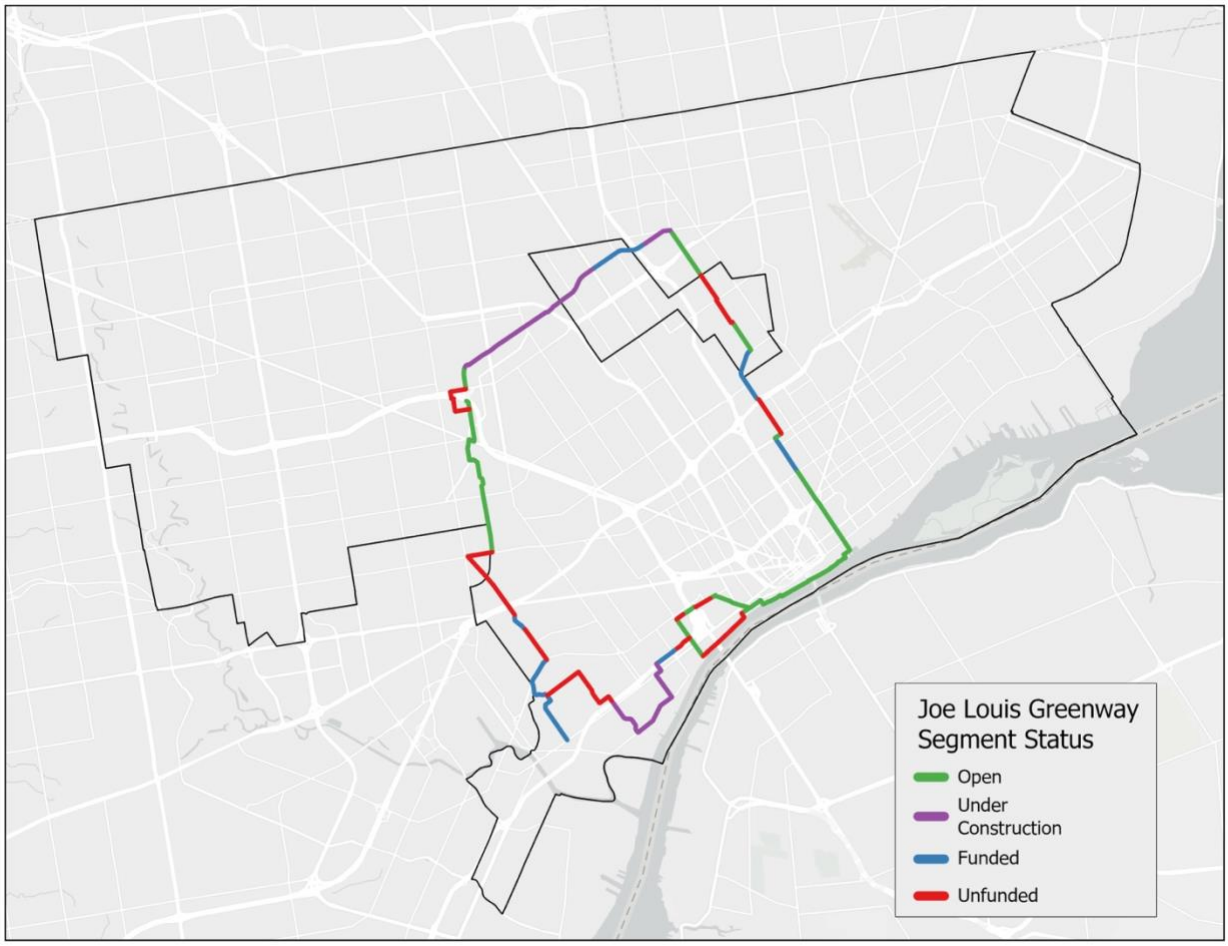

Figure 10: Joe Louis Greenway segment construction and funding status as of September 2024.

Coupled with investment in urban park space, the city is also investing in green infrastructure. The largest investments have come in the Brightmoor neighborhood and in Rouge Park. In Brightmoor, over three million dollars have been spent on green infrastructure to curb flooding and basement backups through the construction of 24 bioretention gardens in the neighborhood.[24] In Rouge Park, the city has dedicated large areas as bioretention ponds, implemented porous pavers, and built stormwater-only sewer pipes that discharge directly into the Rouge River after going through the green infrastructure installations.[2] The goal of these actions is to improve water quality in the Rouge River and have fewer sewer overflows. Detroit received $8.9 million from the Department of Housing and Urban Development in 2015 that has

helped fund numerous green stormwater infrastructure projects.[25,26] The city is also focused on tree planting, with help from non-profit partners. One interview participant spoke about how many of the trees in Detroit were killed by Dutch Elm disease and neglect, and the city not having enough resources to maintain a forestry program. The goal of new tree plantings is to reduce stormwater runoff and provide relief from the urban heat island.

In Detroit, greening was directly referred to as a mechanism of economic growth and revitalization, perhaps best described by Mayor Duggan stating: "One of the biggest things driving our city's revitalization is what we've done to create more and better parks and green space in our neighborhoods."[27] In Corktown, investment in Roosevelt Park and Michigan Central was related to the rapid growth the neighborhood has experienced.[28] Additionally, DTE's construction of Beacon Park was viewed as driving development into a new part of Detroit. The CEO of DTE explained, "With Dan Gilbert doing everything south and the Ilitches everything north, what could we do in this neighborhood that would really be good for our employees but also good for the community?"[29] While Beacon Park does provide greenspace in an area that was previously lacking, it seems the real purpose of the park is to draw in further investment and signal the areas' attractiveness. In connecting urban greening to the city's economic growth, the dominant discourse reinforces the message that greening in the white ideal is necessary for the future success of Detroit.

Assuaging Resident Concerns – Promoting Quality of Life

The vision for the future of Detroit is one which relies on outside investment from wealthy philanthropists looking to remake the city in their vision. While these major investments are going on, residents are told a variety of narratives to quell their concerns and make changes

in their communities seem more palatable. One narrative is that investments will improve residents' quality of life by stabilizing neighborhoods and creating spaces for residents to live, work, and play. One example is the construction of the Henry Ford Health hospital, which was preceded by the company purchasing dozens of lots in the neighborhood they were planning to develop. Vice President of Planning Jerry Darby explained that it "was not a conscientious strategy to go out and buy a bunch of land to make huge amounts of dollars on," but instead that they were trying to "stabilize the neighborhood and create the appropriate neighborhoods for a world-class health facility."[11] In describing the new development as "creating the appropriate neighborhood," Darby signals that the existing community was not appropriate, therefore outside investment was necessary to improve conditions.

The Henry Ford hospital is described as a "transformational vision to improve healthcare" which will "create unique opportunities to live, work, and play."[30] This sentiment is parroted by Mayor Duggan, who supported the hospital and said, "Detroiters will not only have a new state of the art hospital and medical facility, but also more opportunities to live, work, and play, right here in this neighborhood."[16] The language used by speakers of the dominant discourse implies two things: (1) that the existing neighborhoods are not suitable on their own and (2) the people who best know how to make neighborhoods suitable are wealthy outsiders. Other major proposed and completed investments in the city are framed in a similar way. The District Detroit was described by the Ilitch family as "another important step in making a signature live, work, and play neighborhood that improves lives in our community."[18] Progress on creating the district over the last decade, however, has been slow. Similarly, following the announcement of public-private partnerships to improve the Greektown area, director of the development, John Warner, explained that "we want Greektown to be a place where people can

live and work."[31] Stephen Ross, the funder of the Detroit Center for Innovation, described the how the center would improve residents' quality of life by attracting new people to the city:

> "If you can create a center where people are in a place where they want to live, work, and play, and what people are looking for, and to drive corporations to want to locate there and take advantage of the talent that's driven to the city – that's what the innovation center does in terms of bringing young talent."[4]

In southwest Detroit, oil giant Marathon plans to spend $5 million buying out homes and creating the Marathon Gardens, a new green space for residents. The park will act as a buffer between the refinery and residential areas. State House Representative Tyrone Carter called the initiative an opportunity to "usher in a new generation of activity, with the stabilization of the community that we love."[32]

Finally, the Detroit Strategic Neighborhood Fund was created in 2016 as a partnership between the city and corporate donors to focus on "stabilizing" 11 neighborhoods across the city and improving quality of life (Invest Detroit, 2025). In a follow up study of three neighborhoods receiving investment by 2019, residents in all of them perceived a higher quality of life, but each neighborhood had experienced higher rates of new residents moving in and increasing property values,[33] begging the question of how much existing residents truly benefitted. Each of these investments represents moments where residents were told their existing neighborhoods were unfit in some way, and that the city or other developers would come in to fix (aka stabilize) them, thus opening up these spaces for further development and exploitation.

Green infrastructure is also frequently discussed related to addressing flooding issues and improving resident quality of life. As Detroit City Councilmember Fred Durhall explains,

> "The $40 million that will go here to help revitalize and fix our infrastructure in the far-west area is just a start. Redirecting the water ensures that our residents' basements are not flooded and that they can have a great quality of life."[34]

After the city received nine million dollars from the Department of Housing and Urban Development for green infrastructure improvements, Secretary Julian Castro described the projects as "an opportunity to rebuild stronger than before in order to improve quality of life."[26] One article also describes green infrastructure as having triple bottom line benefits which can "beautify our communities, create jobs, and improve health and quality of life."[35]

When it comes to parks, investments in green space are also conveyed as benefitting residents' quality of life. Following the construction of West Riverfront Park, David Egner, President of the Ralph C. Wilson Foundation (which helped fund the park) explained that the park "improves the quality of life for Detroiters by providing the community a place where everyone can come together as one."[36] Beacon Park is described similarly, as a "gem that will enrich the lives of Detroiters for many, many, decades to come."[37] Overall, parks and green space are often framed as opportunities for community connectedness and improving health, but this relies on residents being able to access the parks in the first place. Additionally, the systemic inequities present in Detroit require more attention than the construction of a new park. In claiming that greening will improve residents' quality of life, the subtext of the dominant discourse's message implies that residents' lives are currently imperfect but outside investment will change their circumstances.

Transforming Vacant Land and Blight into Capital

Addressing vacant land and blight has been a priority of the current mayoral administration, though one newspaper article described progress as being relatively small-scale:

> "The Duggan administration has taken mostly small steps in addressing the enormous amount of vacant space, using the empty land as an asset for such purposes as natural areas, buffer zones, and so-called 'green infrastructure,' low-impact water management."[38]

Most progress has come through the creation of the Side Lots program, where residents can purchase vacant lots next to their homes for $100, to "restore land ownership, eliminate blight, and make neighborhoods safer and more attractive."[39] The non-profit planning organization Detroit Future City has compiled resources and even provides small amounts of funding for community organizations to purchase land and turn it into a more productive use of space.[40,41] In the future, the city would have to change its existing zoning laws if these spaces were to be used for other purposes like solar power generation or large-scale urban farms, but vacant land is often presented as an opportunity for the city to explore. In addition, replacing vacant land and blight with new green amenities was viewed as a vehicle for economic and population growth, potentially attracting new residents and helping with the revitalization of the city. Vacant land was frequently framed as an economic opportunity, as this "empty" land could be put to a "more productive use" and thus help the city increase its tax base (Detroit Office of Sustainability, 2019).

The dominant discourse emphasized the environmental benefits of using vacant land. Detroit has more than 24 square miles (out of 139 total square miles) of vacant land and vast portions of the city are filled with vacant, blighted homes. Thus, much of the city's focus in the past decade has been on clearing blight and finding ways to put the land to a more productive use. Many of the articles compared present day Detroit to the past, explaining how the city is better off now due to efforts for removing debris and blight. In 2014, a city task force found that more than 78,000 structures in the city were blighted or at risk of becoming blighted.[38] Mayor Duggan has worked to remove over 13,000 of these structures throughout his administration, though there is considerably more work to go from the city's perspective.[38] Remediating blight is treated as a first step for future development, with one article describing blight as a "death

spiral," if not addressed.[42] Cleaning up blight is discussed as vital for the future economic vitality of the city:

> "With blight removal, on the one hand, you have 'clear cutting' and on the other you have 'selective cutting.' In both cases, it is good for Detroit. Over time, land will be developed, and that means a higher tax base and resurgence of the greatness of Detroit. The profit motive is a great incentive!"[42]

Emphasizing the goal of addressing blight in the city, when describing work that had been done in the city, Mayor Duggan said "I'm so proud of the Blight to Beauty campaign. We are making this city everything people who want to live in the city want – a place for people to come, a place for people to stay."[23]

Another example of the city addressing blight with green space is Ford's investment in Michigan Central. While the building was being redeveloped, the city helped construct Roosevelt Park, which newspapers describe as "a new expanse of green space that the city built in its quest to fix blighted spaces."[43] When constructing Beacon Park, DTE Vice Chairman Dave Meador described the park as "meeting the area's needs" by "remediating blight, giving area employees access to food trucks closer than Campus Martius, and creating a green space closer than Belle Isle Park and bigger than Grand Circus Park for young professionals moving into the area."[44] Similarly, following the announcement of a new park being built along the Detroit River, the director of planning stated: "the east riverfront area will continue to be transformed from a former blighted, industrial area into a vibrant waterfront for all Detroiters."[45] These new parks were framed as a way to address existing blight and remake the city, while also leading to the creation of new amenities for the young professionals the city hopes to attract.

Green infrastructure is also widely cited as being a more economical model of managing routine flooding while addressing blight and vacant land. When describing a green infrastructure project on the east side of Detroit, Lawrence Technological University Professor Don Carpenter

says: “Planting trees and restoring wetlands is cheaper and more pleasing to the eye than building larger drains or water treatment plants.”[46] Palencia Mobely, head of Detroit Water and Sewer explains how green infrastructure projects “are going to be extremely important as we move forward in the city” because they “allow us to make use of vacant land and to make it more productive while at the same time eradicating blight.”[47] Thanks to a partnership with University of Michigan researchers, vacant lots in the Cody Rouge neighborhood were turned into bioretention gardens to “capture and soak up storm runoff as well as beautify the area.”[47, 48] The city also received funding from the U.S. Department of Housing and Urban Development to install green stormwater infrastructure in medians across Detroit. HUD Secretary Castro described these investments as evidence of Detroit “rebuilding stronger than before” and that the developments would be “sources of green energy and beautify the surrounding communities.”[26] Overall, in Detroit, investments in parks and greening are often completed to deal with blight and vacant land, in the hopes of making the city more attractive to potential new residents.

Resident Engagement – Enough?

While these investments are occurring, Detroit residents are engaged throughout the process. How residents participate in and shape decision-making in their communities is a key piece of procedural environmental justice. In Detroit, city officials claim to take a “resident-focused” approach. When creating the city’s Climate Adaptation Plan, Detroiters Working for Environmental Justice created five working groups made up of 50 people and 27 organizations; these working groups reflect the five topic areas included in the plan. Representatives from major economic institutions in the city also participated in writing the plan, including Ford Motor Company, DTE, and General Motors. In addition, DWEJ hosted formal feedback sessions

where “outside reviewers provided feedback” on the draft plan, as well as hosting three Youth Climate Action Summits across the city. The organization supported the Detroit Climate Ambassadors Program, where residents engaged with other people in their communities about the importance of climate action, because “It was important that the plan be written with the voices of Detroit residents in our ears.” However, resident participation was limited to the action summits and ambassadors’ program, and residents were not included in the working groups. Instead, city staff and employees from the State of Michigan, major businesses, and local non-profits were included, reflecting the approach that “With Detroiters, city government employees, and the business community talking, we knew we could be successful,” (Detroiters Working for Environmental Justice, 2017). The inclusion of local businesses over resident voices raises the question of how much resident needs were truly considered in the city’s first climate plan and who the plan exists to serve.

The creation of the Detroit Sustainability Action Agenda took a slightly different approach. As the plan explains, “At the beginning, we acknowledged that how we created the agenda was as important as what was in the final product. We chose to center equity and the voices and experiences of residents throughout the process.” Throughout the planning document, there are multiple “you asked, we answered” sections, where resident comments are shown alongside how the city addressed these concerns. Additionally, the Office of Sustainability added a second round of engagement after hearing resident feedback that more discussion was needed (personal communication). In total, the office conducted four town halls attended by 370 people, seven focus groups, received 1,600 survey responses and 1,200 online comments, and reached over 2,000 Detroit residents, much improved over the process that led to the creation of the original climate adaptation plan (Detroit Office of Sustainability, 2019). However, employees

from major businesses were still involved in the advisory committee for the plan, including the addition of a Bedrock Detroit representative.

The Office of Sustainability took their engagement one step further when creating the Detroit Climate Strategy, which was "developed in partnership with community, technical partners, and informed by the Climate Equity Advisory Council." The office held six focus groups and three town hall meetings virtually, and "feedback from these events informed the development, selection, and refinement of actions in the DCS." In addition, the Climate Equity Advisory Council was made up of city residents and helped facilitate plan creation. Council members selected indicators for the vulnerability assessment, facilitated public engagement, provided feedback on the equity implications of a "select set of proposed climate actions," and created equity and justice-centered community guidelines for the plan (Detroit Office of Sustainability, 2021). The role of residents in carrying out climate action was also addressed, as the plan explains:

> "Hearing from the community is key to making the Detroit Climate Strategy Work. The city wants to involve all residents, especially those who might be more at risk in its plans to fight climate change. This can happen through different types of meetings, both formal and casual, where residents can share their ideas and suggestions. As the actions are put into place, the city will ask residents to join in and work together to reach our shared goals and reduce emissions." (Detroit Office of Sustainability, 2021).

In successive rounds of climate plan development, the city did improve its engagement of residents and their involvement of setting plan priorities. However, outside of small, heavily involved groups like the Climate Equity Advisory Council, it is unclear how involved ordinary residents were, so the priorities of the plans likely align with those most passionate about the issues.

Outside of climate adaptation and sustainability, residents are engaged in the planning process for the Joe Louis Greenway, as it is a city-wide investment intended to increase connectivity across Detroit. As one staff member explained,

> "The first priority for us was making sure that the community is engaged at every step of the process so that they're familiar with the project and involved with what it looks like and where it's going. Especially in those areas where it's not necessarily bound by the rail corridor itself. Like what street makes the most sense for a greenway to complete this connection? So doing engagement, making sure that people are involved at every step of the process and keeping that abreast was really important."

In addition, the city made an effort to understand resident needs in communities that live alongside the greenway, and to think about how to improve these neighborhoods during construction. As the same staff member explained, "Where there are opportunities for the greenway to benefit the nearby residents, they [the planning team] take advantage of that and use it as a tool to support the adjacent homeowners." They continued to explain that residents along the greenway often desire investment in their neighborhoods, as these communities have been disinvested in for decades and residents view the greenway as an opportunity. Similar to some of the proposed benefits residents were told they would experience from other forms of investment, the Joe Louis Greenway is viewed as being about:

> "Making those multi-modal connections and improving transportation. It's about improving quality of life in the neighborhoods. And it's also about promoting equity and equality, making sure that the city is being intentional at every point of the process and thinking about the residents that live there now. Now this greenway can be used to benefit their lives, be a tool to build wealth in those neighborhoods and also just avoid some of the errors of greenways in other cities when it comes to gentrification specifically" (personal communication).

In this instance of developing green amenities, city goals such as beautification or remediating blight to create the greenway are used to assuage potential resident concerns and continue with the project. These quotes also reflect some of the realities Detroiters face: long-term disinvestment and a lack of opportunity to build wealth living in the city. The greenway is

framed as a chance to address these opportunities, which is a benefit to the communities that have been neglected for so long. However, the fact that investment only comes alongside the construction of the greenway signals that perhaps these neighborhoods are not as much of a priority as the city claims they are.

Detroit also has a process for residents to be involved in projects led by private developers. In 2016, voters passed a Community Benefits Ordinance (CBO), which "requires that developers proposing projects with more than a $75 million price tag receiving $1 million or more in property tax abatements engage with a Neighborhood Advisory Council to establish community benefits."[12] These benefits can include jobs and local hiring for construction, environmental protections, land use programs, or local small businesses and resident inclusion in the planning process. Often, green space is used in community benefit agreements, where developers promise green space in exchange for being allowed to build, such as the 3.2 acres of space Dan Gilbert promised as part of the Brewster Douglass housing project.[49] The CBO is often portrayed by city leaders as a positive for Detroit residents. For example, Councilmember Mary Sheffield described the ordinance and her responsibility on the council as "our duty to ensure all Detroiters can benefit from proposed development," because "the residents of this city deserve to have a wonderful, lively, downtown area to enjoy."[6] While the CBO was the first of its kind in the country and does require developers to provide improvements for residents, the process of implementing and engaging in negotiations has been difficult for residents. The ordinance also lacks an enforcement mechanism for developers who do not comply.

Overall, community engagement for projects in Detroit is varied. As standards for community engagement in urban planning have developed over time, the city has also adapted. In many ways, offices of the city recognize that resident involvement is crucial for equitable

development and investment. However, what is unclear, is whether the community engagement efforts have real influence over planning processes and if the city is carrying them out in good faith. Further, there is limited control over implementation and enforcement of existing ordinances for residents. Even if residents are engaged, there is not a requirement their contributions are included in future plans and developments. In the future, Detroit could address the relative lack of teeth in the CBO and make it harder for private developers to avoid working with communities and opting to paying fines instead.

Non-dominant Voices

Some of these challenges related to community engagement are reflected in the non-dominant discourse. In particular, the CBO process is viewed as inequitable by some community members, as one resident explained, “Shame on the neighborhood advisory council for not equipping themselves on equity, and shame on the community outreach team. Fight better. Do better. You don’t get to tell us what we want in our community.”[50] Residents are also told that new construction projects and developments will bring jobs to the city for middle-income Detroiters, except these jobs have often failed to materialize. In addition, despite city ordinances requiring the hiring of local workers for construction jobs, many of the major developers chose to pay penalties rather than employ people from the local community.[51] Often times, residents felt as if their proposed solutions and outcomes were ignored by developers, as a neighborhood association leader explained,

> “There was no acknowledgment of our Community Land Trust proposals, the Community Profit Sharing proposals, or any other proposals that will sustain the community for generations. The developers are disillusioned into believing they are giving the community a handout, but this isn't a hand-out or a hand-up. Our proposals represent a lateral economic exchange. We deserve development for our community with our communities' tax dollars."[50]

Further exacerbating concerns, residents argued that the Detroit City Council would rush their decision-making timeline, not providing neighborhood advisory councils enough time to propose better outcomes for their community. Tonya Myers Phillips, director of the Sugar Law Center highlights this need for more time, stating, "I am asking you to take additional time to review this agreement, to negotiate for more benefits that have long-term systemic equitable outcomes for Detroiters. We need more time. We deserve more time."[52] In rushing through development decisions, the city breaks trust with residents and further reinforces the idea that their opinions do not matter. This is perhaps best encapsulated by resident who stated, "Right now, the city's engagement process is deeply disingenuous. I don't think the city is open-minded enough or willing to give up control enough to actually give residents any power."[53] In a city that claims to be "resident-focused," residents seem to feel differently, as if their concerns are overlooked for the benefit of wealthy developers and downtown Detroit.

Summary: "Two Detroits"

In the years since Detroit's bankruptcy, debate over the existence of "two Detroits" has emerged in discourse about the city. This notion, the idea that "downtown development is king while longtime Detroiters are left behind"[54] is something Mayor Duggan has sought to combat during his tenure. Amidst large-scale investments in parks, green space, and general economic development, the main question that remains is whether there really are two Detroits, one in which the wealthy remake downtown in their image and one for everybody else. Residents are told investments will bring economic, social, and environmental benefits to their communities, but are given little voice in how these investments manifest. Planning processes related to climate and parks generally do not go above and beyond when it comes to engaging with

residents outside of surveys and townhall meetings. In addition, climate and sustainability strategies which are identified by the city are not transformational. Rather, they rely heavily on individual actions in a city where a majority of the residents lack sufficient incomes to take actions such as putting solar panels on their home or purchasing an electric vehicle. Instead, these plans and investments center on creating new amenities for the talent the city hopes to attract. Detroit signals to potential newcomers that the city is "for them" and can be a place where they can live, work, and play, rather than the city investing in the residents who have stayed throughout decades of financial hardship.

In Detroit, investment in climate and green amenities remains concentrated in certain areas of the city, particularly downtown. Other neighborhoods experience variable amounts of investment, for example those along the Joe Louis Greenway or near Midtown. Other neighborhoods see small-scale investments in their parks or green infrastructure, if any at all. Outside of downtown, investment is generally centered on putting vacant land back to use, with city officials and staff perpetuating narratives that these neighborhoods must be revitalized from their blighted state. These narratives of neighborhoods being empty or vacant ignores the residents who do live there. Additionally, members of the growth coalition tend to view vacant land as another means to increase tax revenue in the city once it is revitalized and redeveloped.

When it comes specifically to climate and sustainability initiatives, there is a lack of connection between the opportunities adaptation offers and the ability to address some of the long-standing issues in the city. For example, investing in more public transportation could reduce emissions and contribute to better air quality and thus better health for Detroiters, but the city's multiple sustainability plans fail to articulate this argument for investing in climate and sustainability. Instead, solutions revolve around technical advancements and maintaining the

Motor City image rather than transforming the status quo toward renewable energy and public transportation.

On top of these issues, the Office of Sustainability and the Detroit Green Task Force are incredibly underfunded, limiting their capacity to implement large-scale solutions (personal communication). For example, in the FY26 Detroit budget (City of Detroit, 2025b), the Mayor's Office receives just over 11 million dollars in appropriations, split across multiple departments (City of Detroit, 2025c) . In comparison, the Department of Housing and Revitalization, which leads economic development initiatives, is slated to have a budget of over $90 million. The Buildings, Safety Engineering, and Environmental Department (BSEED) which is responsible for code enforcement and handling complaints about blight or vacant buildings, has a budget of $40 million. These differences in funding suggest that to some city leaders, sustainability might be nothing more than a buzzword to be used for attracting new residents that care about protecting the environment. When it comes to actually benefitting Detroiters, entities working on sustainability are unable to take meaningful action. As one staff member explained,

> "just competing priorities in terms of funding and people maybe not seeing that this has value and was worthy of funding. I think that was honestly, probably the bigger issue. I didn't really ever have any budget other than my staff budget, so it was all pretty much foundation money."

Similarly, speaking about the funding of the Green Task Force, an employee shared,

> "Yeah, it's a major challenge. And I'm in the midst of trying to raise money for two things now. So yes, that is a challenge. We don't get city funding, not at all. That is the one thing that I, I won't say I don't like, but I don't like."

While city leaders may claim that climate and sustainability are priorities, the lack of funding for these organizations suggests differently.

When discussing investments and development in the city, speakers of the dominant discourse in Detroit emphasize the economic and social benefits that will come alongside said

development. These speakers use language that separates the existing city from the planned future city, arguing that neighborhoods now need stabilizing or beautification in order to revitalize the city and make Detroit a place where people can live, work, and play. This characterization of the existing city reinforces the two Detroits narrative that the dominant discourse works so hard to overcome by centering the notion that certain parts of the city in their current state are not enough.

The growth coalition in Detroit seeks to remake the city's image through addressing flooding concerns with green infrastructure, building new green amenities like the waterfront parks or the greenway, or dealing with vacant land. The emphasis on saving existing neighborhoods or making vacant land "more productive" overlooks the residents who already live in these communities, treating the city as a playground for wealthy investors (Safransky, 2014). Further, these narratives reinforce the idea that existing neighborhoods (which are predominantly Black) are insufficient as they are and separate from downtown Detroit. This separation is established even more strongly when the dominant discourse focuses on improving the quality of life in neighborhoods. This language implies residents in certain neighborhoods need an outside entity to save them, rather than the city acknowledging its role in creating the existing inequities in the first place. The differences that the dominant discourse emphasize create a differential valuation of residents and their neighborhoods, a key component of the political economy of racial capitalism (Rucks-Ahidiana et al., 2025).

Overall, Detroit is trying to grow its economy and remake its image into something desirable, using parks, new investments in housing, and the greenway to attract new residents. Whether it be massive tax incentives or endless project extensions without repercussions, the city routinely sides with and supports increased presence of wealthy investors. As these billionaires

build expensive new buildings with shopping experiences and luxury housing, they include parks and green space alongside, because the type of people they are trying to attract to live in Detroit value these amenities. Parks and green infrastructure are used to signal which neighborhoods are seen as more valuable to the city, and which neighborhoods they are trying to increase interest in. These places are described as driving the comeback of the city, while other neighborhoods are considered blighted and rundown, something to be saved. An alternative perspective may view the vacant land as an opportunity to make change in terms of climate and sustainability, as well as real progress on resident health and well-being. At the same time, long-term Detroit residents feel left out of the decisions being made about their communities, as if the city is merely giving lip service to valuing engagement. Shifting these priorities and focusing on creating a Detroit that works for the existing residents, investing in their communities and building up long overlooked neighborhoods is a key first step in making meaningful progress on environmental justice in the Motor City.

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Chapter 5: Cincinnati Results

Cincinnati Context

Cincinnati's location on the Ohio River helped the city grow rapidly in the 19th century as it served as a gateway to the southern part of the country. Known for salted and cured pork, Cincinnati quickly became a center of the meat processing industry, particularly after the invention of the steamboat allowed for faster shipping to other cities along the Ohio and Mississippi Rivers (Gordon, 1990). Although farther from the coast, the city still experienced population growth, especially from German and Irish immigrants. However, the construction of the railroads led the meat processing industry to shift further west, and Cincinnati eventually became a hub for the production of equipment parts, mainly for cars during World War II (Wagner, 2018, 2021). After the war, the city underwent urban renewal, investing hundreds of millions of dollars in neighborhoods and resulting in the flight of white, urban-core residents to the suburbs. This population loss was exacerbated when the steel and automobile industries began to falter, eventually leading to the population loss characteristic of legacy cities (Wagner, 2018, 2021).

In addition to its industrial history, Cincinnati was also a key stop on the Underground Railroad, as Kentucky was a slave state. For many slaves escaping the south, Cincinnati represented freedom upon making it to the northern part of the country. Cincinnati would also become a new home for Black residents of the south seeking to escape Jim Crow laws (Weldon, 2022). During the Great Migration, many Black families searching for jobs moved to the inner core of the city which had been depopulated by white residents moving out to the suburbs (Cooper & Jackson, 2014). This shifting demographic makeup common to legacy cities has

created significant racial inequality in Cincinnati today (Figure 11), where nearly 40 percent of the population is Black (Urban League of Greater Southwestern Ohio, 2024).

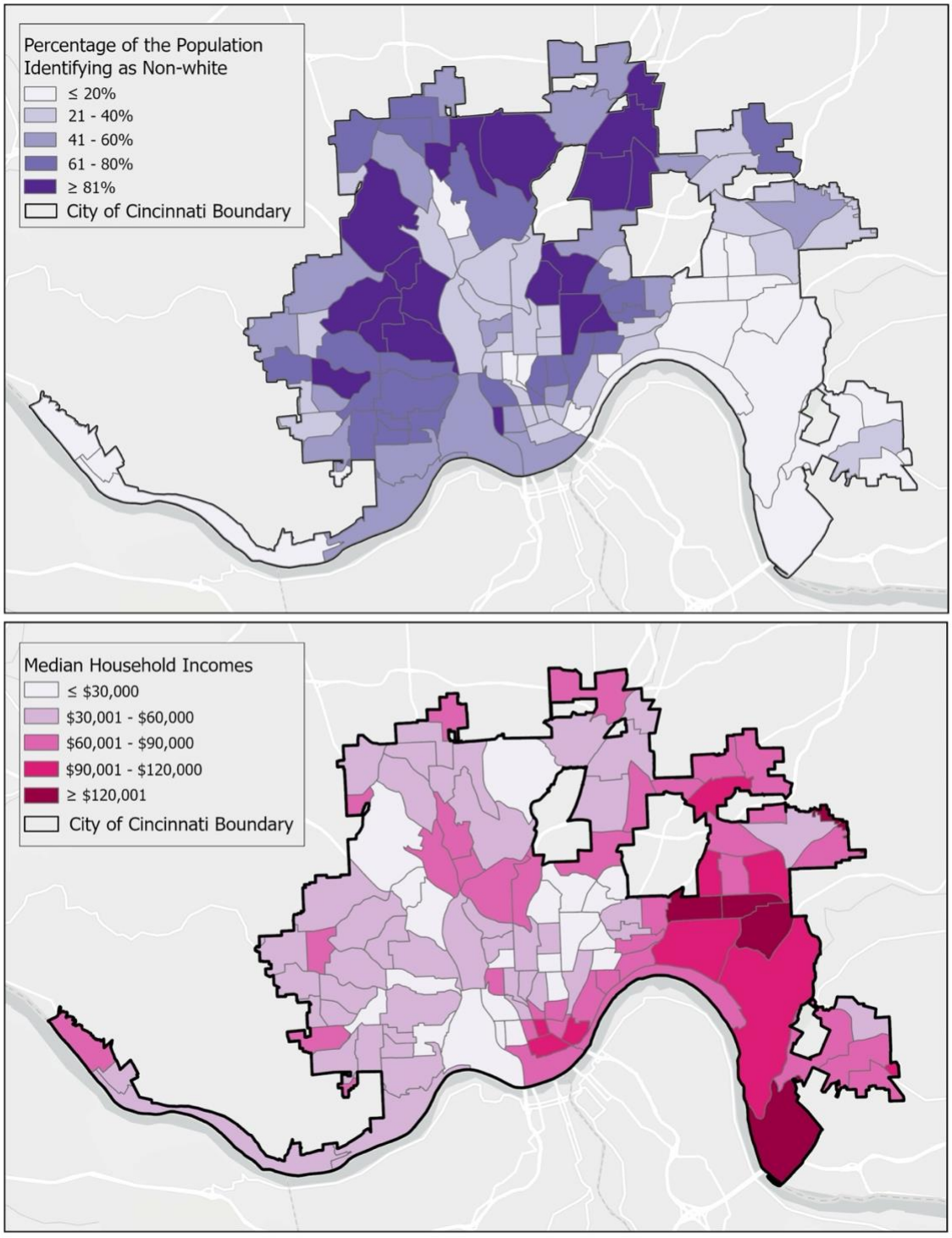

Figure 11: Cincinnati Census tracts showing non-white population (purple) and median incomes (pink).

Present day Cincinnati is home to seven Fortune 500 companies and is pursuing new economic growth as it positions itself as a center for business (Coolidge, 2015). In addition to these companies, the city is home to multiple higher education institutions, including Xavier University and the University of Cincinnati. During the COVID pandemic, the city saw population growth for the first time in decades due to an increase in remote workers moving to the area, taking advantage of a lower cost of living (Personal communication, 2025). As Cincinnati continues to attract new residents, the city is investing in new amenities, including parks, bike lanes, and green infrastructure, with the goal of sustaining growth into the future.

Climate Challenges

Similar to many other Rust Belt cities, Cincinnati also deals with its share of climate challenges, particularly flooding from extreme precipitation events and warming temperatures. Throughout interview conversations and planning documents, it was evident that flooding and severe storms are a major issue across Cincinnati. Versions of the *Green Cincinnati Plan* cite increasingly heavy precipitation events as a major challenge, especially because of the potential for combined sewer overflows and basement flooding due to aging infrastructure. In addition, the city's hilly nature and geology make the area prone to landslides, as one participant explained, "We are one of the landslide capitals in the U.S., considering how much money we spend rectifying landslides. Our entire geology here is constantly moving, it's just real slick." The frequency and intensity of landslides are expected to increase as precipitation events become more intense. One of the main ways that Cincinnati is dealing with these flooding concerns is through investments in green infrastructure, such as the Lick Run greenway, one of the largest flood control projects in the country (Metropolitan Sewer District of Greater Cincinnati, 2023).

Designed to reduce the number of combined sewer overflows, Lick Run uses green infrastructure such as bioswales and detention basins, dedicated storm sewers, and real-time controls to reduce runoff (Metropolitan Sewer District of Greater Cincinnati, 2023). One participant described other investments in the sewer system across Cincinnati, saying:

> "Then there's been some high tech investment in the sewer system where they've installed sensors and like, industrial balloons inside them so when it rains, the system can tell where there's capacity and where it's being overwhelmed, so they can inflate the balloons and redirect water to where there is capacity, in a way that's eliminated a lot of the stormwater damage that we were experiencing."

Cincinnati has taken important first steps in addressing existing flooding concerns and investing in infrastructure to alleviate the burden of heavier precipitation events in the future.

The other major climate issue the city is preparing for is extreme heat and poor air quality. As the *Green Cincinnati Plan* explains, "Historically, Cincinnati experiences about 30 days a year with a heat index over 90 degrees. By midcentury, it will be 79 days," (Cincinnati Office of Environment and Sustainability, 2023, pp. 17). Average daily temperatures are also expected to increase nearly ten degrees Fahrenheit. These rising temperatures are concerning for areas of the city that lack adequate tree canopy coverage, which tend to be neighborhoods home to low-income communities of color. Here, the urban heat island effects are exacerbated, and residents experience higher temperatures than in shadier parts of the city. The city has taken steps in recent years to measure and track the urban tree canopy over time, using GIS to identify gaps in coverage (Personal communication, 2025). Additionally, the city completed a street tree assessment in 2020, and property owners pay fees to help fund planting to increase the urban tree canopy. In 2020, Cincinnati conducted a heat watch study, to map and assess the hyper-local variations in urban temperatures and identify neighborhoods that are warmer than their surroundings (Cincinnati Office of Environment and Sustainability, 2023).

Finally, multiple interview participants spoke about how Cincinnati expects to become a climate migration hub as people move in from other parts of the country that experience more intense impacts of climate change. Much of the conversation around climate migration was how Cincinnati would maintain its identity and provide an adequate level of service with an increasing number of residents. Other interviewees were focused on preventing existing equity issues from being exacerbated with an influx of new residents. As one participant explained, "You get an influx of population and we're not yet super good at taking care of the people we have already or helping them take care of themselves. There are concerns and considerations there, but we're just getting into it." Another described the impacts of a growing population, saying "So I think the development piece is going to be a big thing that we're going to have to be considering, especially the sprawling development," because that development is "sucking up a lot of green space and not always being designed in a climate-friendly way." From these statements, Cincinnati has more work to do when it comes to preparing for the future, both in terms of climate impacts on infrastructure and human health, as well as providing adequate services to a potentially increasing population.

Green Cincinnati Plans and Community Engagement

To deal with projected climate impacts, the city has undertaken multiple rounds of sustainability and climate adaptation planning. Since 2008, city staff have developed four iterations (2008, 2013, 2018, 2023) of the *Green Cincinnati Plan*, focusing on reducing city emissions and increasing resilience. Cincinnati has been successful in this goal; since 2008, the city has reduced its emissions nearly 37% and has a goal of 50% reduction by 2030 and 100% community-wide carbon neutrality (Cincinnati Office of Environment and Sustainability, 2023).

The 2018 and 2023 plans are centered on sustainability, equity, and resilience, the so-called pillars of the plan. As one interview participant explained to me, however, the emphasis on equity in 2023 was much stronger, saying:

> "In 2018 we had equity in there in word but not in deed necessarily and so some constructive feedback was offered after that process, and we spent the next few years kind of putting the building blocks in place so that 2023 could look better in that regard."

In the 2023 version, racial equity is specifically centered, and the plan states, "We believe that we will be better able to create an environment where all Cincinnatians can thrive by explicitly centering race in our effort,".(Cincinnati Office of Environment and Sustainability, 2023, pp. 11). This adjustment from 2018 signals that the city took feedback to heart and made a commitment to equity going forward in their climate adaptation efforts. However, the plan's definition of equity still emphasizes creating a city where "all Cincinnatians" can thrive, an example of mis-using equity language.

In addition to a stronger focus on equity, the development of the 2023 plan was focused on community engagement, described as "unprecedented" for the city. The plan is divided into eight focus areas: buildings and energy, city operations, community activation, food, mobility, natural environment, resilience and climate adaptation, and zero waste. To develop the plan's goals, each focus area was led by a team of city staff and topical experts. Each of the teams "led six months of in-person and virtual meetings and surveys, gathering over 3,000 ideas from community members," (Cincinnati Office of Environment and Sustainability, 2023, pp. 13) Over 1,600 community members participated in the engagement process and the city targeted responses and engagement in communities most vulnerable to the impacts of climate change. This is a substantial improvement from the 2018 plan, where focus areas exclusively held in-

person meetings, with only some targeted towards Spanish speakers, leaving gaps in engagement.

Outside of the Office of Environment and Sustainability, other divisions of the city government are engaging with residents on climate action too. The Parks Department has partnered with Groundwork Ohio River Valley, a local non-profit, to create one to two Climate Safe Neighborhoods plans each year in Cincinnati (Figure 12). These plans, as one interview participant described, are created directly with community members over a multi-week program where residents learn about climate issues and their causes. Then, program participants use GIS-based tools to map localized climate issues like hot temperatures or flooding. From there, participants in the program work with the city to develop neighborhood plans of "what residents want to see" in terms of climate resilience infrastructure. So far, four plans have been created for Roselawn and Bond Hill, Lower Price Hill, the Beekman Corridor, and Avondale (Groundwork Ohio River Valley & Green Umbrella, 2025).

Outside of the Climate Safe Neighborhoods initiative, another interview participant explained how the Parks Department conducts community engagement, saying, "It's pretty standard at this point, if you see a two- or three or more-million-dollar project in your neighborhood, you can expect to be engaged before we pick the major components of that project." Engagement might include public comment on park usage and desired changes in parks, as well as comment on proposed designs via local Parks Advisory Councils. However, for smaller projects, engagement tended to be more limited than other opportunities for resident involvement throughout the city.

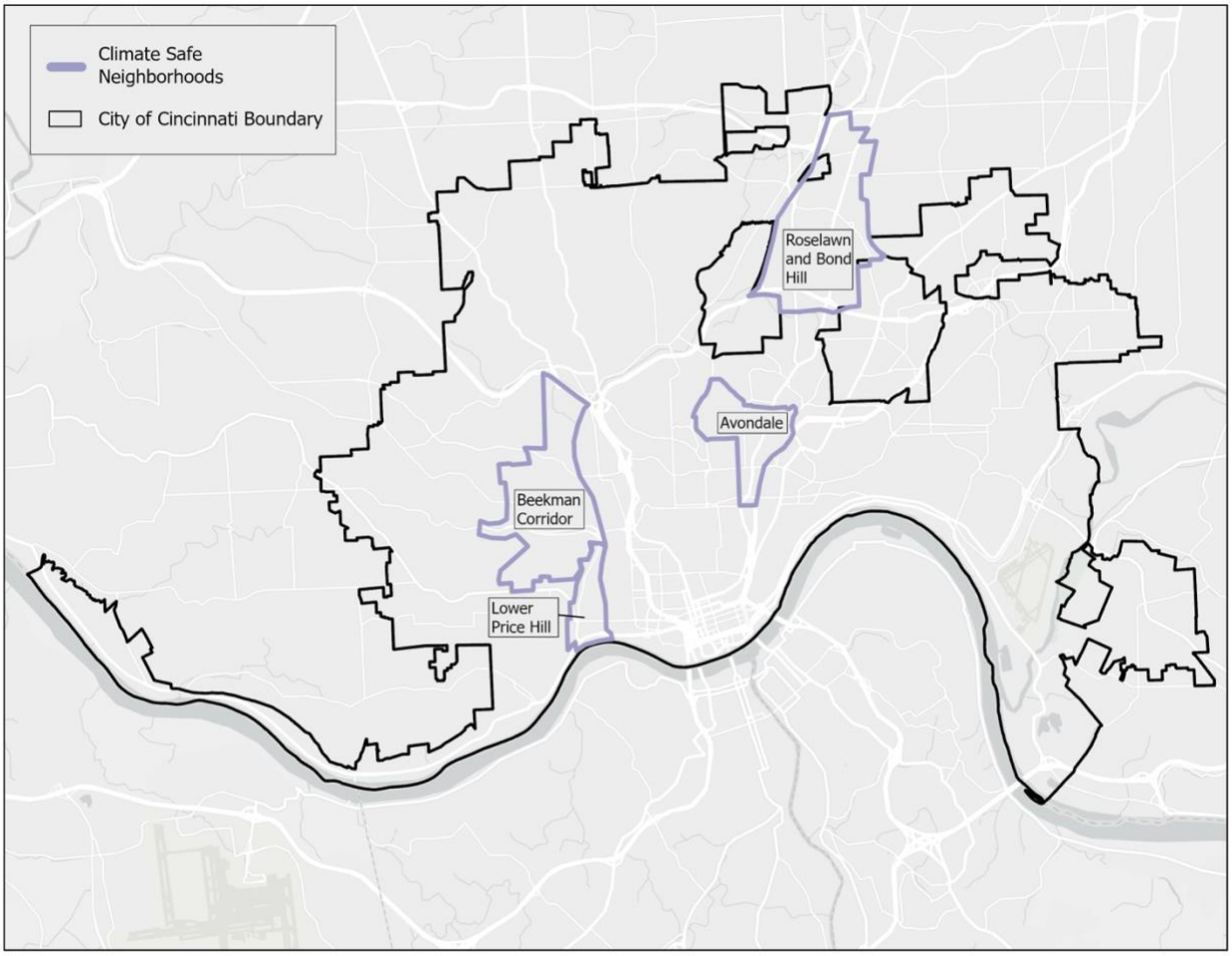

Figure 12: Neighborhoods in Cincinnati that have participated in the Climate Safe Neighborhoods program.

Parks, Greenspace, and Economic Development

Cincinnati is known across the country for its parks system (Figure 12), and continued investment in urban greening and parks is a key priority for the city as it looks towards the future. Across newspaper articles, city plans, and interviews, the parks system was routinely described as a defining characteristic of Cincinnati, one which greatly adds to the city's character. Frequently recognized among the top ten park systems in the country by the Trust for Public Land (TPL), Cincinnati has invested significantly in urban greening over the past decade. Newspaper articles cited these rankings from TPL as a signifier of the quality of Cincinnati

Parks.[1,2] For example, one article explains how Cincinnati Parks "claims the highest score in the country for park amenities."[1] Parks are also framed as a community space for creating connection, as TPL CEO Diane Regas describes "Having places to meet our neighbors can help us find common ground and encourages everyone to get outside."[2] Additionally, the website WalletHub ranked Cincinnati as the seventh best city in America for recreation in 2019, with the city having "more than enough options to keep residents entertained and active when it comes to recreation."[3] In terms of sustainability more broadly, Cincinnati was named the "Most Sustainable City" in 2018, following the release of its new sustainability plan.[4] Each of these accomplishments were covered by the local media in articles which emphasized the importance of parks and green space to the city.

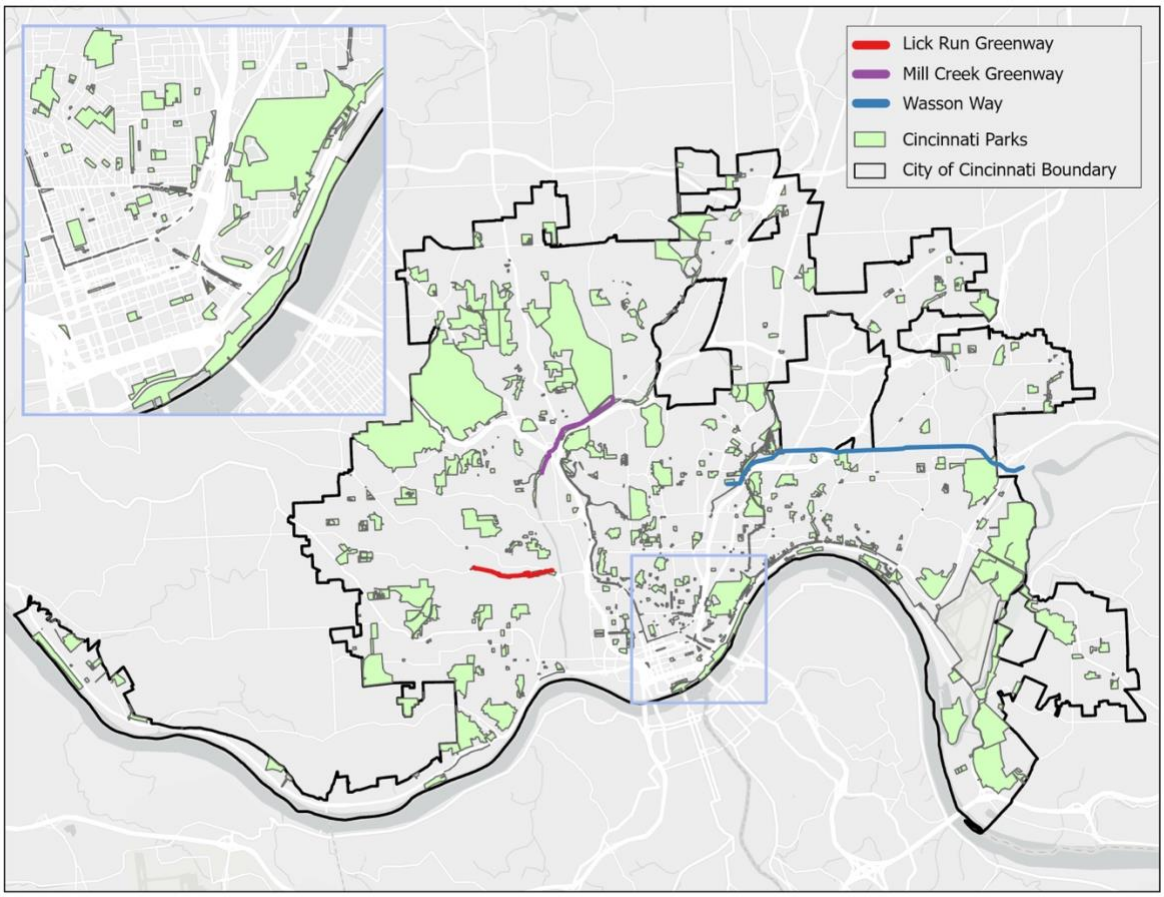

Figure 13: City of Cincinnati parks and greenways.

In relation to parks, one of the most commonly discussed issues across newspaper articles was the nearly $60 million in deferred maintenance that had built up in the parks in the late 2010s and early 2020s.[5,6,7,8] A levy was placed on the ballot in 2015 for more funding but was voted down due to a lack of transparency over how funds would be spent, leading to continued budget shortfalls for the parks department.[5,9] In 2022, voters approved the sale of the Cincinnati Southern Railway (CSR), the only municipally owned railway in the country, to Norfolk Southern for over $1.5 billion dollars. The sale was officially completed in 2024.[7,10] At the time of voter approval, the city had over $400 million in deferred capital spending projects, including in the parks system. Vice-Mayor Lemon-Kearney described the need for more parks funding after passage of the sale, arguing, "Some of our playground equipment is really old and falling apart. There are some places like in Evanston where the bathrooms are crime-taped up, and you can't go in there."[10] Money from the sale of the railway was used to address these needs.

As a result of the influx of capital from the railway sale, the parks department is working to catch up on maintenance and projects. Prior to the completion of the sale, Vice-Mayor Lemon-Kearney described how the funds would be used to "make needed repairs across the city and to invest in the underserved communities that are suffering from decades of neglect and abuse due to systemic racism."[11] In 2024, the parks department released their three-year strategic plan, outlining investments and enhancements coming to parks around the city (Figure 13). Covering a variety of projects, ranging from street repairs, a bike skills course, and multiple new playgrounds, the city is planning to heavily invest in its parks system. As one interview participant explained, "We're grappling with that as a city, how to best spend that money and conduct transformative projects. We're blessed right now to actually have some money to do things." While the Parks Department claims the plan was developed based on "a number of

factors including safety, equity, and available funding" (Cincinnati Parks, 2024), many of the parks improvements are located in predominantly white neighborhoods of Cincinnati.

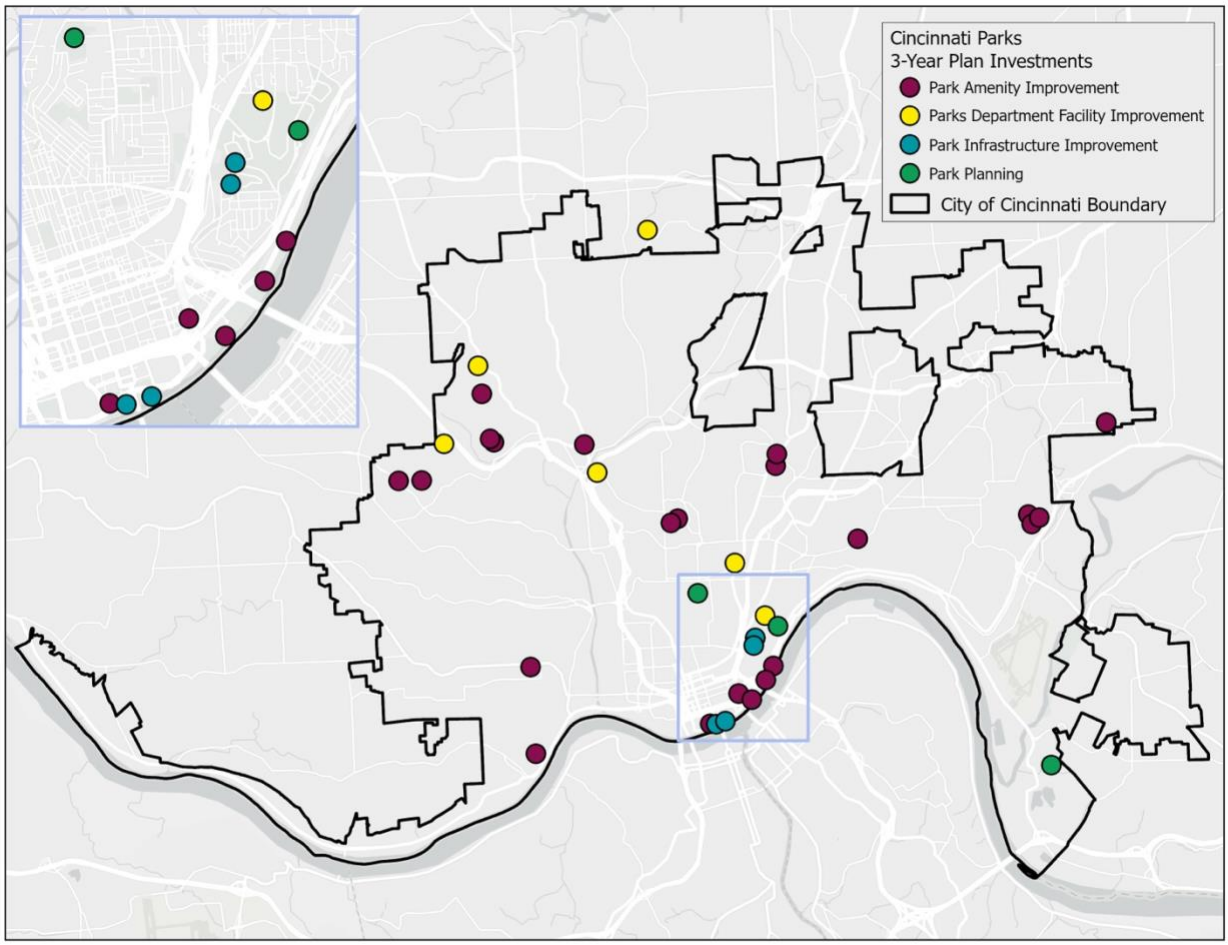

Figure 14: Cincinnati Parks investments from 3-year plan.

Other major parks investments in the city include the Smale Riverfront Park, which opened in 2012. The construction of the park was kickstarted by a $20 million donation from former CEO of Proctor and Gamble, John Smale. Ultimately the park was funded with a combination of city, state, federal, and private dollars, but it was these private funds that made the park possible in the first place (The Banks Public Partnership, 2024). The city continues to invest in the park, and multiple interview participants brought up that Smale consistently ranks

as the top riverfront park in the country. Smale is portrayed as important to Cincinnati in multiple ways. Parks superintendent Brian Kruse described it as "a park that is big enough to actually stimulate the economy around it. It has enough amenities that they are in fact stimulating the economy, like restaurants that are bringing in large events."[12] Alongside Smale Park, Cincinnati worked to develop an outdoor music amphitheater on the riverfront.[13] Other parks receiving major investments include Ziegler Park ($30 million)[14], Washington Park ($28 million)[15], Lytle Park ($5 million via a public-private partnership)[16,17], and Inwood Park ($5 million).[18]

The city is also constructing bike trails and greenways to make it easier for people to get around Cincinnati without a car (Figure 12). Examples of these trails include Wasson Way, a six-mile path near the campus of Xavier University[19,20] and a 25-mile trail along the Ohio River being developed by Great Parks of Hamilton County.[21] There is also the Cincinnati Connects project, which aims to bring together multiple existing or in progress greenways to create a 42-mile loop through the city.[22,23,24] Along Mill Creek, a previously polluted waterway, the city is investing in new infrastructure to maintain water quality and increase recreation opportunities on the creek. The Mill Creek Greenway Trail is also being constructed to "reconnect walking and biking connections between and within neighborhoods."[19] Although the overall goal is to create a city-wide loop trail, Councilwoman Amy Murray said that "the city is focused on Oasis and Wasson Way trails right now because they're going to take a while."[22] These two trails are also located in predominantly white and wealthy neighborhoods of the city.

The Cincinnati Parks Department has also had its fair share of controversy over the past decade. Due to the budget shortfalls prior to the Cincinnati Southern Railway sale, the city was considering allowing construction in a major park near the University of Cincinnati, Burnet

Woods. This potential construction angered many residents and was covered heavily by Cincinnati newspapers. The Cincinnati Parks Board heard two competing proposals for development, one from the Clifton Cultural Arts Center and another from the Camping and Education Foundation, each hoping to build a new building in the park.[25,26,27,28,29,30] With significant pressure from nearby residents, the Parks Board ultimately voted no on the building proposals. However, Parks Board leadership countered resident pushback and argued that allowing the building would potentially be a source of revenue for the parks system, stating:

> "We don't have any new buckets of resources falling out of the sky. I'm not interested in making changes for changes sake. But if there's an opportunity for all of us to get more people into the parks, I think that's worth exploring too."[26]

On top of the potential construction in Burnet Woods, the Cincinnati Parks Board has repeatedly been scrutinized for improper behavior. Newspapers covered improper expenditures that could not be tracked due to a lack of an internal budget from the board. The board also donated two hundred thousand dollars to a pro-levy campaign in 2015 (which, if passed, would have increased the board's autonomy over decision-making) but was then required to rescind the money.[9,31,32,33] The board has also spent millions of dollars on Smale Park without properly putting contracts out to bid,[33] and has given board members hundreds of thousands of dollars in bonuses, trips, car privileges, and personal expenditures found on Parks Board cards.[34,35] While these scandals happened under previous mayoral administrations, they imply some level of impropriety in decision-making amongst the Parks Board, which oversees spending for the broader Cincinnati Parks system.

Outside of parks, there is also significant economic development ongoing in the city (Figure 14). In the downtown area, the University of Cincinnati is remaking its medical campus, spending nearly half a billion dollars in the process.[36] At the same time, the Cincinnati

Children's Hospital was expanded in the majority Black Avondale neighborhood, costing $550 million, leading to gentrification and displacement of existing residents.[37] That same area of the city is also the focus of an "innovation corridor," lead by the Uptown Consortium (members include Children's Hospital, Cincinnati Zoo, the University of Cincinnati, and TriHealth). The goal of the corridor is to "attract cutting edge companies that intend to take advantage of university resources and recruit students to work on projects, particularly focused around new technology."[38] However, while the innovation corridor grows, the population of Avondale has shrunk, as residents have moved out or lost their homes as institutions like the children's hospital expanded.[38] Other investments in the downtown area include (1) a reuse project for an old Macy's building to be turned into housing,[39] and (2) the renovation of the Dennison building, to "lure a Fortune 500 company into town", according to the building owners.[33]

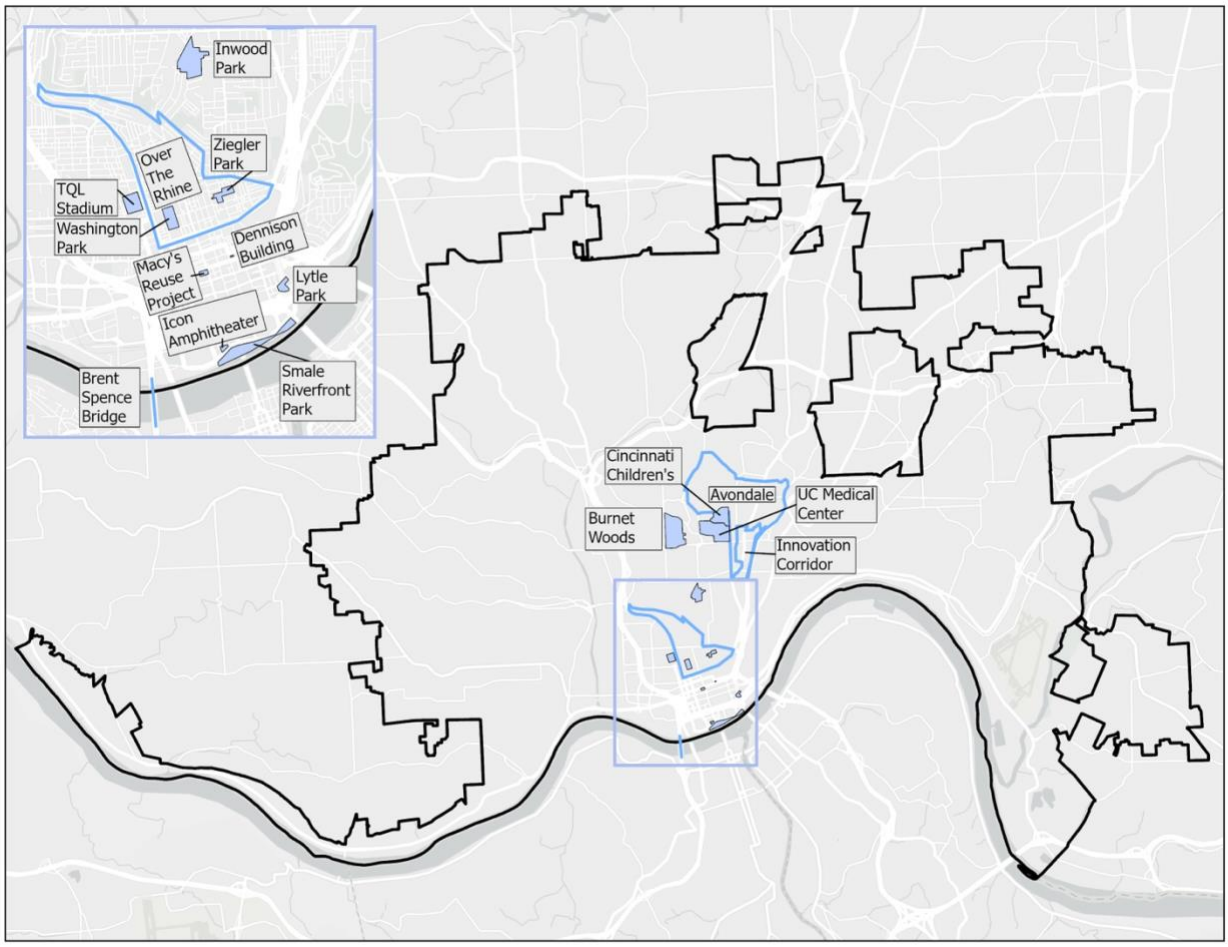

Figure 15: Investments and neighborhoods in Cincinnati discussed throughout chapter 5.

Similarly, Over the Rhine (OTR), another predominantly Black neighborhood, received its own share of coverage with the construction of a new stadium for FC Cincinnati, the city's Major League Soccer team, in 2021. The stadium was a point of contention with existing residents in the neighborhood, which was described as having seen "decades of disinvestment as well as some very disruptive large-scale demolition."[40] A previous Cincinnati mayor was even quoted as saying "The bottom line is, if FC Cincinnati hears a majority of residents saying they don't want a stadium here, it won't be here. Gone with it will be an opportunity to reinvest in the West End."[40] This quote implies that if the neighborhood had not accepted the stadium, they

would receive no other investments from the City. The stadium was eventually built, despite resident concerns. Alongside the construction of the stadium, the Cincinnati Center City Development Corporation invested in Ziegler and Washington parks in Over the Rhine to help revitalize the neighborhood. These investments have resulted in significant gentrification and displacement of long-time OTR residents, showcasing how parks and targeted investments can have negative impacts on existing residents.[14, 41] For example, residents have experienced large increases in rents in neighborhoods surrounding parks, with some receiving a letter from their landlords, arguing

> "The neighborhood continues to improve around us. The new parking garage and green space at Woodward School across the street and the completely rebuilt Ziegler Park, 200 feet away. Improvements throughout Pendleton and OTR are creating great energy that has spread throughout the city,"[14]

While these improvements are ongoing, rents have increased in the neighborhood an average of $200, causing concerns over resident displacement. Overall, in the city's commitment to growing its parks system and developing new amenities, many of the improvements in recent years have been focused in whiter and wealthier parts of the city. In addition, when investing in neighborhoods of color, the city oftentimes overlooks what residents want, or if they even want development to occur in the first place.

Green Jobs and the Green Economy

Speakers of the dominant discourse frequently emphasize the economic benefits of investing in green space and climate adaptation. Often, this included discussion of the city's transition to the green economy and attracting new, high-tech green jobs to the area. As one interview participant explained,

> "If you're shopping for your future headquarters and you're climate conscious, this region of the world offers a lot of upsides in terms of climate stability, access to fresh water, energy pricing, and I think that can be framed as a competitive advantage in the business context, but I think it also means that we will grow as a city as people leave other locations where they are either outpriced or choking on forest fires or have one too many storms."

One specific means of marketing Cincinnati to new businesses is through the city's use of tax increment finance (TIF) districts. These special tax districts come with incentives for private development, directing some or all of the tax revenue from sales in the district back to developers to help offset construction costs. In Cincinnati, there are 20 TIF districts, as of 2019 (Figure 15), covering vast portions of the downtown area. The districts support many of the investments described earlier in this chapter, such as Washington Park in Over the Rhine and the FC Cincinnati stadium.[15] On top of these incentives, the city also has a tax abatement program for developments that follow the Leadership in Energy and Environmental Design (LEED) standards. The 2018 GCP describes the tax abatements as "a cost-effective incentive for developers to implement green building design standards," (Cincinnati Office of Environment and Sustainability, 2018, pp. 57).

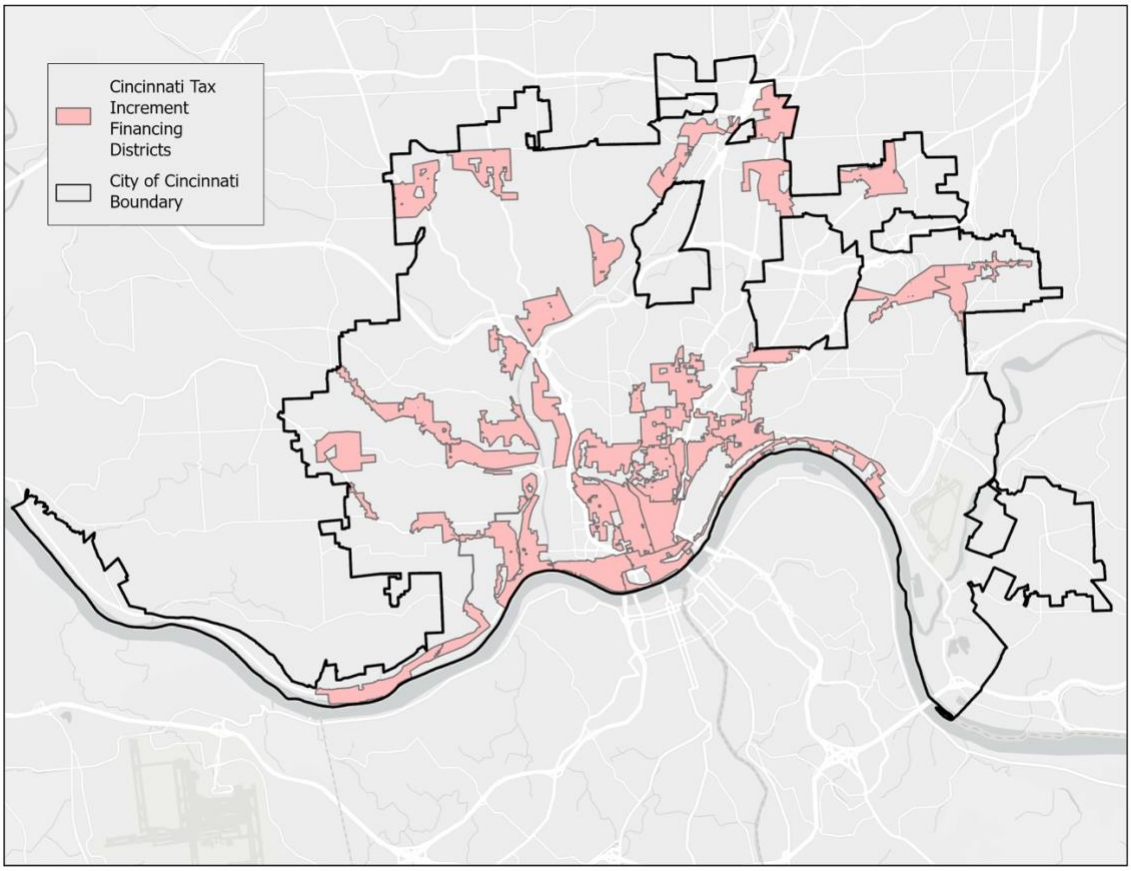

Figure 16: Cincinnati tax increment financing (TIF) districts.

In addition to attracting new businesses, investments in sustainability were portrayed positively for the local economy, though specific benefits were unclear. When describing the construction of a solar farm to power city operations, OES director Ollie Kroner said: "Ultimately this project improves the environment, the economy, and the quality of life for Cincinnatians."[42] Talking more broadly about the *Green Cincinnati Plan* as a whole, city councilmember P.G. Sittenfeld described it as a "comprehensive blueprint that will benefit our economy, our health, our ability to attract talent, and of course the environment."[4] Across the city, there are multiple incentive programs to encourage and attract new businesses and development to Cincinnati. Despite claiming to benefit residents, in most instances, the mechanisms for attracting economic growth provide few opportunities for resident input.

Further, despite promising jobs to residents, developers associated with major construction projects admit that "construction jobs aren't for everyone," and it is unclear how many jobs developments such as the Innovation Corridor will create.[38] Even though the city claims to be resident-focused, the lack of true economic benefits outside of construction jobs brings up the question of just how much residents might benefit from these new investments.

Both the 2018 and 2023 versions of the *Green Cincinnati Plan* emphasize green workforce development and training. The 2018 GCP describes workforce development and training as "an opportunity to make Cincinnati more attractive for prospective students, new and/or low-income residents looking for a job, and businesses looking for a place to settle or grow" (Cincinnati Office of Environment and Sustainability, 2018). This quote highlights how much of the workforce development in the city focuses on attracting *new* residents, rather than prioritizing existing ones. In the 2023 plan, one of the main goals is the creation of 4,000 green jobs by 2030, or approximately 800 per year. Although adding green jobs is attractive to voters and taxpayers, the plan's strategies for achieving this level of job creation are limited to either (1) increased youth workforce opportunities in restoration and maintenance of natural areas or (2) "continuing to grow paid, hands-on learning opportunities and jobs in the green economy with an emphasis on preparing youth and the unemployed and/or difficult to employ for living wage jobs." The lack of specificity in workforce development goals suggest it is unclear how the city intends to maximize its perceived opportunity to employ low-income residents.

Much of the Cincinnati discourse also centered on economic revitalization across the city. Infrastructure projects, such as the Brent Spence Bridge (BSB), were framed as opportunities to "reconnect regions of the city" and "revitalize relationships between neighborhoods and downtown."[43] In addition to furthering these connections, the BSB was described as a

"transformative opportunity for Ohio businesses to grow and prosper."[43] Other investments, like the Innovation Corridor in Avondale, were framed as opportunities to bring in new businesses and residents to the neighborhood. Beth Robinson, president of the Uptown Consortium described the corridor positively, saying:

> "It will most definitely bring in new people to live and work. I think that's a good thing because that increases the economic activity in the neighborhood, which will bring in some offerings that the community doesn't have now. And really specifically, I'm talking about restaurants and coffee places – things that really there aren't much of in Avondale."[38]

The newspapers covered investments in Over the Rhine similarly, with $46 million in park investments being described as a chance to "revitalize the neighborhood" and "help increase new development in the neighborhood."[44,45] The construction of the FC Cincinnati stadium in OTR was also described as an opportunity to spur further revitalization. However, following these investments, the neighborhood saw a drop in the number of residents using Section 8 housing vouchers and an increase in white residents moving in as housing costs increased.[46] Some newspaper coverage acknowledged this displacement of existing residents, but still framed the growth positively. For example, the director of the Xavier University Community Building Initiative explained:

> "This region has become almost a national market on how you harness revitalization and a preference for urban living. I think that's a good thing. But it also means we're displacing residents in neighborhoods where they historically lived because property values are heating up."[46]

Despite rising costs of housing and displacement of longtime residents, these investments were still often viewed favorably by Cincinnati media and city decision-makers. This signals that the perspective of the dominant discourse is one where parks, green space, and urban revitalization provide opportunities for economic growth, therefore acting as powerful tools for economic development.

Another common thread in Cincinnati was the economic benefits of environmental restoration and brownfield revitalization. The city is heavily investing in the Mill Creek neighborhood, which is a historically polluted area with many residents of color. Here, environmental clean-up is recognized as both an economic and social opportunity. When describing benefits of brownfield revitalization projects across the city, positive outcomes such as job creation and training, greenspace, better health, and more climate-resilient infrastructure were cited as reason to invest in cleaning up polluted areas. However, these benefits were still tied to growth. For example, Mayor Pureval explained: "This is important work for the sake of environmental justice – for cleaning up and bringing life to areas that have been concentrated far too long with industrial pollution."[47] While true, this sentiment was followed by more economic reasons for environmental cleanup, with Mayor Pureval stating: "But equally important are the profound economic benefits for the Mill Creek Corridor communities. This is the first step towards new community investment, new jobs and housing, and more cohesive, vibrant and healthy neighborhoods."[47] For Cincinnati, environmental restoration provides an opportunity to transform neighborhoods that were previously burdened by pollution, and the cleanup is followed with further investment and development. While it is important that the city highlights the uneven distribution of environmental harms and works to address them, it is unclear if these efforts are occurring in a move towards justice or if they serve to open the door for future investment that may drive out the very residents they claim to prioritize.

Quality of Life Improvements

Another key sub-strand of the dominant discourse was related to resident quality of life and environmental justice outcomes from investments. In Cincinnati, there was a general

awareness of the need for equity in environmental decision-making and the distribution of resources, but it is unclear if implementation is actually equitable. City officials routinely acknowledged the disproportionate impacts climate change will have on communities of color. For example, sustainability director Ollie Kroner calls climate change a "risk amplifier that will most impact low-income communities,"[48] when describing the need for the *Green Cincinnati Plan*. City councilmembers also talked regularly about a need for equity, with Councilmember Lemon-Kearney calling for "a tale of one city, a tale of equity for all, where zip code does not determine opportunities or life expectancy."[49] This vision of equity stems from Mayor Pureval calling for "equity to underlie everything we do."[11] Infrastructure investments have been prioritized in historically overlooked neighborhoods and both mayor and city council affirm that "everyone will be able to live in a community that has a healthy environment and good quality of life."[47]

These quality-of-life outcomes are achieved in some ways through the *Green Cincinnati Plan.* Kroner describes the plan as being "the highest-impact, most feasible strategies for reducing the risks of climate change, growing green-sector economic opportunity, and improving comfort and quality of life for all residents of Cincinnati."[42] One of the main ways the city plans to increase quality of life is by investing in making bike trails more accessible in low-income communities. Supporters of increased bike lanes argue that they will "produce significant social gains, reduce health disparities, lower household transportation expenses, create jobs, lower air pollution, and reduce mental health problems,"[23] particularly for residents in low-income communities. Bike infrastructure is frequently framed as an opportunity to connect residents that might otherwise lack transportation options to jobs across Cincinnati, thereby increasing those residents' quality of life.

Another way speakers of the dominant discourse intended to improve residents' quality of life is addressing the presence of blight and poverty. Certain areas of the city, often predominantly Black neighborhoods, were framed as needing new development to revitalize them. For example, when describing investments in Over the Rhine's Inwood Park, City Councilmembers Seelbach and Winburn said in a joint statement:

> "The revamped park could add more momentum to new developments in the neighborhood. 'As we've seen with Washington Park, these dollars do more than beautify our neighborhoods. Inwood Park will become a destination in Uptown, drawing families, students, and neighbors to spend time together enjoying our city."[18]

In this case, parks and urban greening are viewed as a mechanism through which certain neighborhoods will "become destinations," suggesting further development and growth. Given that OTR is a predominantly low-income, Black neighborhood that is experiencing rapid gentrification, more investment in parks could serve to further displace existing residents. Potential negative outcomes also call into question how much residents' quality of life truly improves when sweeping investments come to their neighborhoods.

Residents are also aware of these inequities and want more for their communities, but at the same time, they want to be given a voice in the process of new developments or investments. Those living in neighborhoods at risk of gentrification, such as Over the Rhine and Avondale expressed the most concern throughout the non-dominant discourse, particularly about rising housing costs, potentially being displaced, and feeling unsure of how to handle these changes. For example, one resident said, "I told my buddies, you better start saving every penny you have. You're about to have to move somewhere a lot more expensive."[14] Another described the loss of affordable housing and the challenges that come along with that loss, saying, "there is no neighborhood that is opening its doors."[14] Reflecting this reality, a non-profit staffer also explained that

> "When we lose a unit of affordable housing here [OTR] or in any neighborhood, it will be years before we get it back, if we ever do get it back. With all the changes and loss of housing, I'd guess that most residents don't feel their home is secure here. That's a hard way to live."[14]

In general, residents expressed a desire to stay in their neighborhoods because, as one said, "I've been here all my life. This is where I want to be. This is where I want to die."[14] Family ties and deep relationships to their communities fed residents' desire to remain living in their neighborhoods. As one resident explained, "I've been in downtown Cincinnati since I was three days old. I have family who have lived down here all their lives. I want to stay here."[14] At the same time, there was deep concern amongst residents that they were unable to resist or stop the changes coming to their communities, despite not wanting some of the changes that were already ongoing. This is perhaps best encapsulated by a resident commenting, "Money flows like water. It's really hard to stop."[50] In many ways, residents felt unable to stop the changes coming to their neighborhoods and felt left out of the decision-making process.

One of the most illustrative examples of this tension is the construction of the new FC Cincinnati Stadium in Over the Rhine. Despite resident pushback on its development and concerns about rising housing costs in the area, the city moved forward with construction. As a result, residents noted ongoing changes they were seeing in OTR just a year after the stadium was completed. One explained,

> "Everything is showing us what's going to happen. The new restaurants and bars on Vine Street – we go to those places, and we can kind of afford them sometimes, but none of this stuff is going to help us. We'd love to have our neighborhood fixed up, but why can't it happen for us? Why does it need to be fixed up because of a stadium?"[40]

In the case of the stadium and not meeting resident needs, one of the FC Cincinnati co-owners, Carl Lindner III, owns the grocery store chain United Dairy Farmers. When residents asked for a UDF to be built in OTR when the stadium was being constructed, this request was ignored,

despite the area being a food desert.[40] The stadium and its associated development are just one example of how some resident desires are ignored or overlooked by city decision-makers.

Summary

In the coming years, Cincinnati expects to experience higher temperatures and more intense precipitation events, as well as a growing population as people migrate from other areas of the country. To address these challenges, the city has crafted iterative versions of their *Green Cincinnati Plan,* striving to reduce city emissions, transition to renewable energy, and build a community where residents are prepared for climate impacts. Cincinnati has made progress in these climate adaptation efforts over the years, increasing solar capacity, investing in green workforce development, and improving green infrastructure. At the same time, the city parks system is also an excellent example of urban green space and is continually recognized as among the nation's best. However, despite these best efforts, the interests of the green growth machine still represent an obstacle to achieving equitable climate adaptation.

These challenges show up most significantly in the use of parks and green space as an economic development mechanism, to "revitalize" neighborhoods which are portrayed as blighted. By constructing new parks or renovating existing ones, the city signals to other residents that neighborhoods like OTR are more desirable once they have been cleaned up and re-imagined in the white ideal. Environmental remediation and brownfield clean up are treated similarly, serving as opportunities to take previously un-developable land and create new economic opportunities under the guise of advancing environmental justice, such as the work ongoing along Mill Creek. The centering of Cincinnati as a hotspot for the green economy is no accident either. By framing the city and its sustainability actions as favorable to businesses,

Cincinnati decision-makers actively place the recruitment of major corporations above the needs of residents, a prime example of the power of the green growth machine when it comes to furthering growth and development.

Cincinnati city staff and planning documents claim to have been supported by robust community engagement efforts, though this claim tends to fall short in the face of data. Certainly, the Office of Environment and Sustainability improved their engagement efforts between the 2018 and 2023 versions of the *Green Cincinnati Plan,* but their methods of resident involvement still centered on community meetings and opportunities for feedback. This limited community engagement can lead to the needs and challenges facing marginalized neighborhoods being overlooked. More inclusive planning would better support engagement from diverse groups of residents, while acknowledging the barriers that certain communities face to participation (Meerow & Woodruff, 2020). In addition, planning "for the common good," an approach often underlying climate adaptation, overlooks the reality that actions supposedly good for the whole might not actually benefit marginalized groups (Blue et al., 2019). At the parks department, nearby neighborhoods are engaged only after a project has been initiated, leaving little room for true resident input into the ideation of new parks. Perhaps the best example of procedural justice throughout the city, when it comes to climate adaptation, is the Climate Safe Neighborhoods program, where residents are engaged in a weeks-long process to develop localized adaptation plans for their communities. Striving for similar engagement and planning during the implementation and development of the *Green Cincinnati Plan*, as well as parks planning, would better support procedural justice and give residents a more active voice in shaping their neighborhoods.

Overall, Cincinnati is trying to pursue equitable climate adaptation and be more responsive to its residents. In some small-scale ways, such as the Climate Safe Neighborhoods plans, some pockets of the city are engaged in localized planning efforts to make their communities more resilient. Citywide however, the 2018 *Green Cincinnati Plan* is very similar in terms of strategies and goals to the 2023 version of the document, suggesting little has changed in the planning process and via resident engagement. Although the city and speakers of the dominant discourse are aware of the "right" language to use (e.g., centering environmental justice and equity), the process of creating the 2023 *Green Cincinnati Plan* was ultimately lacking in procedural justice.

Further, based on the inclusion of certain communities needs in planning outcomes but not others, it is clear that community engagement favors the desires of wealthier, whiter residents For example, when there was proposed development in Burnet Woods, local (predominantly white) residents were able to voice their concerns and the Cincinnati Parks Board voted against development. At the same time, when residents in Over the Rhine pushed back against the construction of the FC Cincinnati stadium, their concerns were overlooked and the stadium was built anyways, with threats that future investments would be stopped if the neighborhood did not accept the stadium. Similar patterns emerge when it comes to bike infrastructure construction, with new trails being prioritized in mostly white neighborhoods, despite multiple speakers of the dominant discourse arguing that bike trails are key for improving the quality of life for poor Cincinnatians. This is further evidence of the separation between white neighborhoods and communities of color, and the differential valuation of space created by the political economy of racial capitalism.

Cincinnati decision-makers rely on the fact that the city has been making progress on sustainability and climate for over 15 years, acting as if it is guaranteed new actions will have benefits for residents economically and socially. As one interview participant explained, "The concept of a rising tide lifts all boats, that really does happen here as well. As we lift disadvantaged communities, we are really lifting everybody." While there are some incredible investments going on, like Smale Riverfront Park or Wasson Way, there are still challenges alongside these investments, such as the construction of new bike paths and parks being concentrated in white neighborhoods. Alongside developments in communities of color come pressures on affordable housing and increasing gentrification, spurring resident concerns of displacement, a loss of community, and a general sense of being overlooked in city decisions. Ultimately, the negative impacts of large-scale investments on vulnerable neighborhoods are portrayed as inevitable, but that in the end, the investments in parks and climate and sustainability will bring in more residents or business and benefit the entire city. What remains to be seen however, is whether these claims of a rising tide lifting all boats are true, or if certain communities will continue to be favored for parks and green space, while others are treated as wastelands to be cleaned up for future development.

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Chapter 6: Providence Results

Providence Context

Situated on the Providence River and Narragansett Bay, Providence, Rhode Island, quickly became an industrial and manufacturing hub after the Revolutionary War. The city was known for producing textiles, jewelry, machinery, and silverware, and by the early 1900s was home to some of the largest manufacturing plants in the country (Stanton, 2004). As a result of this economic prosperity, Providence was attractive to immigrants looking to start new lives, leading to a growing, more diverse population (American Immigration Council, 2024). During the Civil War, Providence's manufacturing power was utilized by the Union forces and following the war even more new residents flocked to the city. This population growth and influx of immigrants helped Providence become one of the wealthiest cities in the nation prior to the end of World War I (Marchese, 2024).

However, the city was deeply affected by the Great Depression and saw the shuttering of many manufacturing facilities, leaving a large portion of residents unemployed. As a result, population quickly declined (Gilkeson, 1986). Further compounding economic issues, in the 1920s textile mills began moving south in pursuit of cheaper labor (Marchese, 2024). Coupled with flooding from the 1938 New England Hurricane which significantly affected local textile mills (Goudsouzian, 2004), and general economic decline, white residents fled Providence for the suburbs, as is typical of many cities in the 20th century (Figure 17).

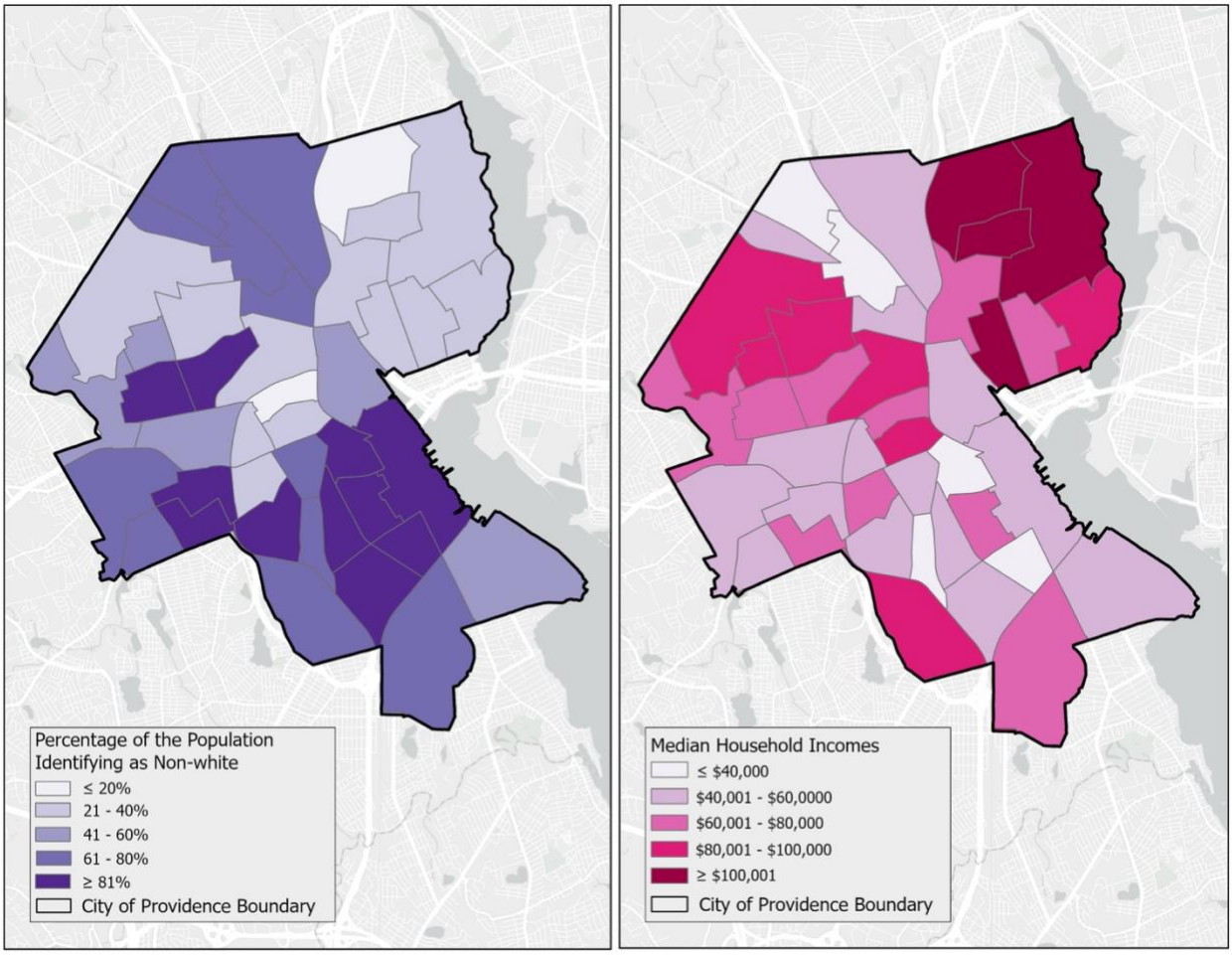

Figure 17: Providence Census tracts showing non-white population (purple) and median incomes (pink).

The city has started experiencing growth again after re-development efforts focused on green infrastructure, parks, and a downtown riverwalk (Leazes & Motte, 2004). At the turn of the 21st century, the city of Providence created an economic development plan to shift towards a knowledge-based economy of "eds and meds," (Mallach, 2018) anchored by the presence of multiple universities and hospitals (Abbott, 2011). Providence has also been a leader in climate and environmental justice. In 2019, the city adopted a Climate Justice Plan, specifically focused on making the city more equitable while centering the needs of marginalized communities in the adaptation process (Providence Department of Sustainability, 2019).

Climate Hazards and Challenges

As the only coastal city among the three included in this dissertation, Providence faces different challenges from climate change, particularly sea level rise, coastal flooding, erosion, and water quality concerns. Multiple newspaper articles and city planning documents identified these risks, as one article explained, "Sea levels in Providence have risen 10 inches over the last century," conditions which are most noticeable during the king tides that occur throughout the year.[1] Other articles covered the loss of shoreline across Rhode Island, describing how some portions of the state are losing up to two feet of coast per year. This loss of coastline will impact recreation, tourism, and the economy.[2]

On top of increasing coastal flooding, Providence will also experience more intense precipitation events. These more extreme events, combined with an aging sewer system, increasing development, and a loss of green space[3,4], have led to more flooding in Providence each year. One illustrative example is the 2022 Labor Day flood when more than 8 inches of rain fell in one day. The intense precipitation led to widespread flooding across the city and the closure of multiple major interstates.[5] On top of these rain events, Providence has dealt with more hurricanes, nor'easters, and increased storm surge levels in recent years, causing millions of dollars in damage.[2,6,7] The city built the Fox Point hurricane barrier, a flood wall spanning the Providence River, in 1966 (U.S. Army Corps of Engineers, n.d.). Although the city spent $3 million on upgrades in 2023, there are still concerns about flooding.[8,9] As Timmons Roberts, a Brown professor explained, "The hurricane barrier will help us for a while, but if there is massive river flooding combined with tidal surge and hurricane force winds, it could be overtopped."[4]

More frequent flooding events have also led to water quality concerns around Providence, particularly in the Narragansett Bay and Providence River.[10,11,12,13] As the city has continued to develop, the amount of impervious surfaces has increased, leading to more polluted runoff entering the surrounding water bodies.[4] With the goal of addressing these concerns, the city and other partners have started investing in green infrastructure projects to help reduce runoff and improve water quality, such as an infrastructure project to construct tunnels under the city to store untreated stormwater and sewage during heavy rainfall.[11] The hope is this new infrastructure will limit pollution entering Narragansett Bay, maintaining residents' ability to recreate on the water.

Aside from flooding concerns, Providence also experiences wide ranges of temperatures, leading to concerns about extreme heat and cold, as well as air quality. Air quality is particularly unhealthy in the industrial areas surrounding the Port of Providence (colloquially known as ProvPort), and proposed new developments could exacerbate the situation. As one resident described in a Providence newspaper article, "I can't even go out in my yard in the morning and drink my coffee because I can't breathe."[14] As the temperatures rise, poor air quality days become more common, because, as Brown professor Meredith Hastings explained,

> "Hotter, longer summers are linked to higher smog levels, not only because heat helps accelerate the chemical reactions that create ozone but also because higher temperatures will mean more air conditioning, driving up emissions that contribute to formation of the gas."[13]

As temperatures rise in Providence, air quality issues will be exacerbated, potentially leading to greater health concerns for vulnerable residents.

In a similar vein, Providence is likely to experience more extreme temperatures in the future. Rhode Island already has some of the highest energy costs in the country. Although there are statewide protections preventing utility shutoffs in the winter months, these protections are

limited in the summer, even though temperatures can rise to unsafe levels.[15] The older housing stock common in Providence tends to be less weatherized or energy efficient, resulting in higher energy bills that can be particularly challenging for low-income households.[16] The city has begun investing in energy efficiency and weatherization programs, but there is concern they are too small scale to meet the need that exists.[3, 17] High energy costs are also used by some members of the dominant discourse to push for the development of more facilities for natural gas storage and transportation, arguing that this will lead to lower energy costs for consumers.[18,19,20,21] These narratives and goals compete with other perspectives, particularly from residents, related to concerns about the need for more renewable energy and decreasing pollution levels across Providence.

City-wide Climate Adaptation Planning Initiatives

In light of these climate challenges, Providence and the state of Rhode Island have been active when it comes to passing statewide legislation or city-wide plans. Providence created and adopted its *Sustainable Providence* plan in 2014, focused on sustainability issues like waste, energy, transportation, and food. Some example actions include expanding bike lanes, increasing access to waterways and coasts, creating a local composting program, and promoting resident participation in energy reduction programs (City of Providence, 2014). Equity was not a primary focus of the Sustainability Plan.

In subsequent years, however, the city took a different approach to planning for environmental issues. In 2016, Providence selected the first members of its Racial and Environmental Justice Committee (REJC). This group was "established to co-create a process that directly integrates voices and concerns of people of color into a city sustainability and

resilience planning process," (City of Providence, 2017, pp. 3). One of the first tasks of the REJC was to create the Recommendations for a Just and Racially Equitable Providence, now known as the Just Providence Framework, which was adopted by the city council in 2017. The framework recognizes and acknowledges how communities of color have been left out of and negatively impacted by decision-making processes in Providence. Within the framework, there are eleven guiding principles to support a racially just Providence, such as supporting safe spaces for frontline communities of color, co-governance with these communities, and building a sustainable local economy (City of Providence, 2017).

The Just Providence Framework helped shape the development of the Providence *Climate Justice Plan*, which was approved and adopted by city council in 2019. Providence aims to be a carbon neutral city by 2050, and the plan outlines strategies for doing so. These strategies include "addressing the root causes of climate change: structural racism, economic inequality, and our extractive economy," to create a city where "race or zip code no longer determines your health or economic outcomes," (Providence Department of Sustainability, 2019, pp. 8). The plan also recognizes how pollution disproportionately harms low-income communities of color in Providence. One example cited in the plan is the storage and transportation of fossil fuels at the Port of Providence, which exists in a community with many vulnerable residents. The *Climate Justice Plan* was informed by 40 resident interviews and 150 resident survey responses, as well as the perspectives of the REJC. Climate adaptation actions in the plan center on the city leading by example to reduce its own emissions, collaborative governance and accountability, housing and buildings, community health, supporting a local and regenerative economy, clean energy, and transportation (Providence Department of Sustainability, 2019).

Statewide Legislative Climate Action

In addition to these local initiatives, the state of Rhode Island has also taken steps towards climate action over the past decade. Many of these initiatives were frequently described as opportunities for the city and state in the Providence dominant discourse. Rhode Island often puts bond issues before state voters to support environmental initiatives, such as preserving open space, funding parks and recreation, or more recently, to support climate action efforts. One such instance occurred in 2016, when the state passed a $35 million green economy bond to "support investments in water quality, land cleanup, farmland, recreational facilities, and open space," (Rhode Island Department of Environmental Management, n.d.). Funding was used to expand the state's bikeway network, invest in state park facilities, and create matching fund programs for communities to receive grant funding for stormwater improvements and brownfield remediation (Rhode Island Department of Environmental Management, n.d.).

A similar bond was placed on the ballot in 2022, to raise "$50 million in green bonds to support open space preservation, climate resilience, brownfield cleanup, the protection of Narragansett Bay, and other environmental initiatives."[22] In addition, the bond opened up more matching funding from foundations and advocacy groups. As the director of the state Department of Environmental Management Terrence Gray explained, "It's really a catalyst for activity by a lot of other organizations."[20] The bond provided $12 million in funding for a new environmental education center at the Roger Williams Park Zoo and $16 million for the state's municipal resilience program which helps communities fund resilience actions. Other pockets of money went to programs for brownfield remediation, forest habitat restoration, Narragansett Bay restoration, and small business renewable energy funding.[20]

Just a few years later in 2024, another green bond was brought to voters, though this time the proposal initially lacked funding for open space preservation. As one article, written by conservation leaders across Rhode Island explained, "Without the infusion of $16 million into the green bond, the vital work of preserving our green spaces will be severely hindered."[23] Later on, the same article argues that

> "Conservation efforts funding through the Local Open Space Grant Program do not compete with addressing the affordable housing crisis. Rather, they complement our state's broader goals of sustainable development and improved quality of life for all residents. Preserving open spaces not only enhances our physical well-being but also contributes to the social and economic vitality of our state."[21]

Ultimately, funding was added to the bond for green space preservation and the bond passed overwhelmingly by state voters.

A final important state level policy development is the passage of the Rhode Island Act on Climate in 2021. The law requires the state to achieve net zero emissions by 2050 and decrease emissions 45% by 2030.[3,24] New sustainability programs were developed at the state level, such as the Affordable Solar Pathways Program (ASAP). The program uses government funds to lower the cost that qualifying households pay to lease rooftop solar panels. Governor McKee described the program as "aiming to ensure that all Rhode Islanders, regardless of income, have access to new sources of clean energy."[25] At the same time, state actions sometimes misalign with the stated goals of the Act on Climate. One example from Providence is the proposed expansion of a propane shipping terminal at ProvPort, which was supported by some members of state leadership. However, Attorney General Peter Neronha described this project as one which "raises serious concerns about the harmful air emissions associated with increased truck traffic" and that "expansion of the facility for the purpose of increasing the important distribution of propane runs contrary to the State's mandatory long-term climate

goals."[18] Ultimately, the Providence City Council updated their zoning laws to prohibit the storage of propane within the city, and the expansion was stopped (Kohli, 2024). This example highlights how despite state efforts to curtail fossil fuel emissions, there are still economic development interests invested in pursuing further expansion of polluting industries.

Finally, following the passage of the Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL), much of the dominant discourse in Providence discussed the opportunity this funding presented for the city and Rhode Island as a whole. After the BIL was passed in 2021, Jeffrey Diehl, the CEO of the Rhode Island Infrastructure Bank described the funding as "a truly historic opportunity to tackle these challenges and make transformational investments in water infrastructure."[26] Once the IRA was passed in 2022, leaders of the Providence Resilience Partnership expressed their excitement about new funding sources, writing,

> "We are thrilled to see Inflation Reduction Act funding to address the environmental and health risks from urban heat islands. There's money to make affordable housing units more climate resilient and to implement climate adaptation and resilience programs for urban communities."[27]

State legislators also described investments from the IRA as "historic coastal resilience projects that will help our state weather some of the worst climate impacts."[3] Overall, the variety of funding available to Providence suggests that the city may have substantial advantages when it comes to funding adaptation and resilience measures. How much of an "opportunity" the resulting adaptation actions are, however, and who truly benefits from them, remains to be seen.

Renewable Energy and Energy Efficiency

Given the funding available for climate action and greening in Rhode Island and the substantial planning efforts already undertaken, Providence is leading adaptation efforts in the

state (map of investments discussed in this chapter in Figure 18). In particular, energy supply and affordability are major concerns for Providence. Rhode Island has some of the highest energy costs in the country. Older housing stock not weatherized, coupled with a reliance on natural gas, creates a significant energy burden for Providence's lowest income residents. As such, the state and city have made significant investments in renewable energy over the past decade.

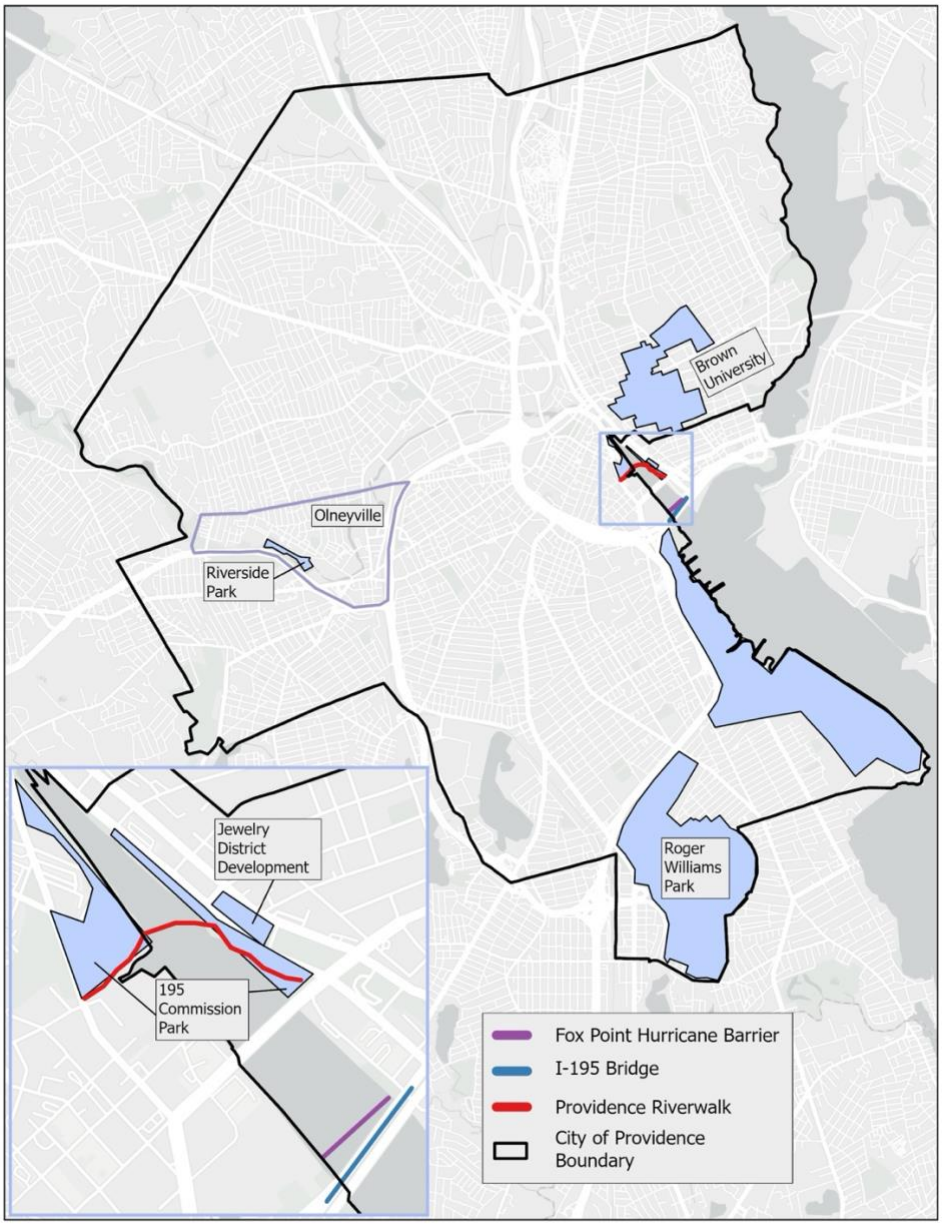

Figure 18: Investments in Providence discussed in chapter 6.

Governor Gina Raimondo led massive investments in offshore wind, particularly the Revolution Wind farm, a 704-megawatt wind farm approved in 2019 which will provide power to Rhode Island and Connecticut.[28,29] Similarly, solar development is rapidly increasing across Rhode Island, and many newspaper articles covered state laws that were being debated regarding clearcutting forests for solar development. As one newspaper article explained,

> "In one important area, Rhode Island's policies around the environment are at odds with each other. The state is pushing for more solar power and other forms of renewable energy to battle climate change, but much of that new development means tearing down forests and otherwise losing open space."[30]

In addition to the environmental benefits of renewable energy, speakers of the dominant discourse also emphasize the economic opportunities of transitioning to renewables. One newspaper article argues that "The key to returning good, blue-collar jobs to the United States isn't making our air and water dirty again. Instead, we should embrace the green economy."[28] Similarly, the Revolution Wind farm is portrayed as "creating new jobs and a supply chain which will offer even more economic opportunity."[28]

Despite the potential economic benefits, development of renewable energy is not without pushback. Residents in rural areas frequently expressed concerns about the changing of their neighborhood's character due to green space loss for solar development. As one resident stated, " sprawling tracts of photovoltaic panels mar the character of their communities."[31] Research conducted at the University of Rhode Island, and shared in news coverage, showed that siting solar panels near homes negatively impacted home values, further exacerbating resident concerns.[30] Scott Millar, the director of Grow Smart Rhode Island frankly illustrated these concerns, "A utility-scale solar development is clearly not a compatible use within an established residential area."[30] To address this tension between preserving open space and solar development, the state General Assembly crafted bills incentivizing solar development on

brownfields, gravel pits, and landfills.[29,30,32,33] Another proposed program would incentivize developers to place their solar panels on carports by allowing them to sell their power at higher rates to National Grid.[31]

Energy efficiency programs for low-income residents have also been prioritized in Providence and Rhode Island. These programs included opportunities for reducing energy consumption,[34] proposal of an income-based payment program for utility costs,[35] and creating pathways for solar panel purchasing via federal tax credits.[36,37] In Providence, the city council passed a community choice aggregation plan which "outlines a program that will create a new electricity supply for Providence residents and businesses rather than solely utilizing its current supplier, National Grid."[38] Other city actions around energy efficiency center on residents leading the charge. As former Director of Sustainability Leah Bamberger explained,

> "In the near term, becoming carbon neutral will mean encouraging more city residents to take advantage of state energy efficiency programs. It will also mean encouraging people to sign up for Solarize Providence, a solar power program that reduces costs through bulk purchases."[39]

Within the *Climate Justice Plan*, proposed actions related to energy tend to lack specificity. For example one of the actions for energy is "Expand energy efficiency, energy access, clean energy, and electrification programs to better serve low-income communities, renters, and other underserved populations," (Providence Department of Sustainability, 2019). However, the document does not explain how the city plans to carry through on this action or others. Previous research has indicated that clear goals and actions within climate plans are necessary for success in implementation (Meerow et al., 2019; Meerow & Woodruff, 2020). Therefore, the lack of specificity in some of Providence's climate goals is concerning, particularly given the city's emphasis on pursuing environmental justice through plan implementation.

Parks, Green Space, and Bike Infrastructure

Two other key climate adaptation strategies in Providence are improving green space and expanding mobility options. Actions in these areas are portrayed by speakers of the dominant discourse as having benefits for residents and providing ecosystem services in extreme weather events. In addition, investments in parks and mobility are also described as helping transform undesirable neighborhoods and stimulate economic activity. Much of the newspaper coverage about parks focused on land along the Providence Riverfront (map of all Providence parks in Figure 19). One investment came when the city removed container walls along the river and replaced them with natural banks to help mitigate flooding impacts.[4] In re-designing Interstate 195, new parks have also been constructed on both sides of the Providence River, to "draw people into the city for planned events and walks along the river, to enjoy green space in an area reclaimed for development after the state's highway-relocation project."[40]

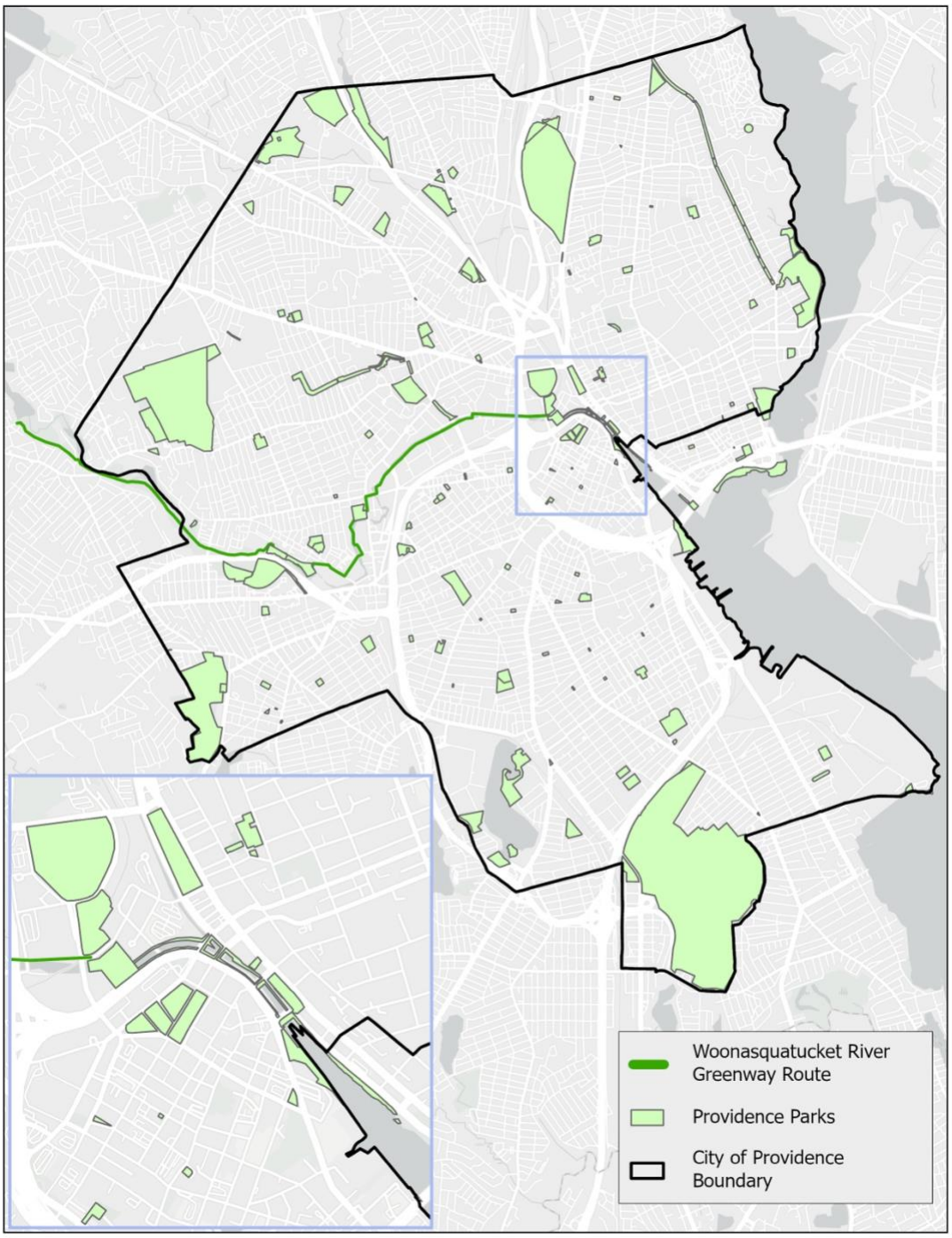

Figure 19: City of Providence parks and greenways.

There have also been one-time investments in parks across the city. For example, Roger Williams Park received a five-million-dollar new entrance to help "make the park the crown

jewel in the city's emerald necklace of parks," using American Rescue Plan Act (ARPA) funding.[41] The project is part of "a city-wide effort to eliminate abandoned properties" and will turn "blighted lots into the Gateway to the park."[40] Additionally, Riverside Park in the Olneyville neighborhood was created on a "previously derelict industrial site polluted with oil."[42] The park was brought to life after the contaminated soil was removed and the land was capped.[41] Riverside Park is described by Providence Police Captain Dean Isabella as "transforming a neighborhood that was plagued by drug dealing, prostitution, and violent crimes, which plummeted 80 percent after the park was completed."[41] In describing these investments, speakers of the dominant discourse reinforce ideas about the transformative power of parks, framing the neighborhoods previously dealing with high crime rates or blight as in need of saving.

In terms of bike paths and greenways, the city is building a greenway lined with green infrastructure along the Woonasquatucket River.[41,43] Improvements are being targeted in this area because it is a "historically industrial part of town that has disproportionately shouldered the burdens of pollution."[42,44] One example, the CityWalk 2019 project, was started to create pedestrian and bike-friendly infrastructure that will "connect Providence neighborhoods and enhance access to green spaces and other city amenities."[45] Within the *Climate Justice Plan*, the transportation actions are vaguer, though still focused on increased mobility options particularly in low-income communities of color. Some examples of actions include "Invest in infrastructure to make walking and riding bicycles safe and more accessible, especially in low-income areas," to create a city-wide mobility plan, or expand bike and scooter sharing services to low-income areas (Providence Department of Sustainability, 2019, pp. 77). When it comes to issues such as expanded public transportation however, the city only plans to "advocate for investing in cleaner and more accessible public transportation," (Providence Department of Sustainability, 2019, pp.

77). While investments in safer biking routes are important for increasing access to alternative transportation options, this is an example of Providence investing in greening in the white ideal. With less emphasis on expanded public transportation options (which would be more likely to significantly impact marginalized residents), instead the city focuses on bike lanes and greenways, amenities which valued by typically wealthier, white residents.

Another area of investment in urban greening has been the city's focus on implementing green infrastructure throughout Providence. Newspaper coverage described the relationships between low tree coverage, higher temperatures, and higher energy costs, particularly for low-income residents.[46] To address tree canopy coverage disparities, the Providence Neighborhood Planting Program has been working in the city to plant more than 10,000 trees in the past 25 years.[47] The city is also using green infrastructure to limit flooding impacts by installing porous pavers, planting more vegetation, and converting sections of sidewalks to green spaces.[6] Articles covering these installations make clear connections between climate change and more intense rainfall events that will overwhelm the city's existing infrastructure. At the same time, the city has spent over 1.5 billion dollars in restoring and maintaining a network of tunnels underneath Providence and Narrangansett Bay to store untreated stormwater and sewage in the event of heavy rainfall, maintaining reliance on gray infrastructure.[11] Lastly, the Woonasquatucket River Watershed Council has done significant work investing in green infrastructure along and near the river to limit flooding, such as building rain gardens and bioswales.[4] They are also looking bigger and trying to buy residents out of their homes in floodplains and dedicating larger swathes of land as places for stormwater retention in floods.[2,6,7,10,48] In addition to conversations about city actions, some of the dominant discourse emphasizes actions individual homeowners can take to reduce stormwater runoff and flooding. These include using rain barrels, installing more

planter boxes and downspouts, and redirecting drainpipes.[6] Ultimately, greening throughout Providence is used as a mechanism to "beautify" and cleanup various neighborhoods, and is portrayed as a vehicle of economic transformation that will benefit the city and residents alike.

Housing

Housing, particularly higher density housing, was a main issue in the Providence discourse as well. In building more dense housing, cities can pursue sustainability goals as fewer emissions are required for residents to engage in their daily activities. When new housing is built, sometimes developments include green space, but not always, though discussion of housing is still relevant as it is one way cities can achieve their climate goals. In the dominant discourse in Providence, housing issues centered on changes made in the new comprehensive plan and its foci on upzoning to increase housing density. The plan includes multiple changes to allow for multi-family housing or apartment buildings in locations which were previously zoned for duplexes and triplexes.[49] There are also efforts to implement inclusionary zoning, such as incentives for developers "to create more affordable or income-restricted housing," and combat gentrification.[50] On top of these zoning changes, the city has several additional housing plans in the works; to encourage construction of row houses, expand the number of historical districts, cap the number of units allowed in new apartment buildings, and ban short-term rentals.[48]

Residents pushed back against these zoning changes, as reported in newspapers. Providence is home to multiple colleges and universities, most significantly Brown University. The large student population is often blamed by other residents for pressure on the housing market.[49] When the new comprehensive plan was passed, articles described how "some community members are worried the incentives will be used by developers to build student housing, which could instead drive-up rent prices for residents."[49] Others argued that the city

needed to “stop cannibalizing thriving, existing neighborhoods” by allowing for more dense housing development.[49] This problem has been exacerbated in recent years as Brown has over-admitted students, leaving some without on-campus housing options.[51] At the same time, the university continues to purchase land throughout the city and wait to develop it, thereby removing the land from tax rolls but leaving it unused. As city council member Luis Aponte explained, “Every time Brown University buys a new building, it's a positive for the new jobs it will bring, but it often takes another building off the tax rolls and puts more pressure on the housing market.”[52]

Despite housing affordability pressures, some speakers of the dominant discourse in Providence are adept at using historical preservation to maintain the neighborhood status quo. When neighborhoods are given historical preservation status, developers are then required to get all building changes approved by the city. One article explained how the Providence Preservation Society “continues to call for an expansion of historical districts and committees to force changes to designs put forward by developers.”[48] Although they claim to “protect and enhance the quality of life in the neighborhoods and their historic integrity,”[48] preservation districts could actually exacerbate the housing affordability issues across the city by limiting higher density housing, as research has previously indicated (McCabe, 2019).

One story which illustrates the tensions between advocates for more housing and the intense “not in my back yard” attitudes in the city is the debate over constructing a new apartment building along the Providence waterfront in the Jewelry District.[53] Multiple newspaper articles covered this building, from its proposal through approval for construction. These articles include quotes from residents and business owners in the area describing the building as “a mega-apartment building that’s just too tall” or “a massive structure with no trees, no sunlight,

no side yards, no backyards."[54] Local business owners were quoted saying the "building would threaten the health of the neighborhood" and "change the landscape and destroy the future of small business."[53]

These opinions came to life because the proposed building would block some views of the Providence River, which existing residents described by saying "it's all about the waterfront and nothing about us who have been here for decades."[55] While these sentiments do hold some truth, residents and business owners also complained about high rental and housing costs in their neighborhoods, which would improve with more housing being developed. Overall, Providence is experiencing a housing shortage, and there is significant resident pushback against proposals to increase housing density. Although higher density living would align with the city's climate and sustainability goals, if certain residents and community organizations in the city are able to use their power and influence to stop upzoning, these climate goals may not be achieved.

Economic Development

Much of the economic development discourse in Providence was focused on re-connecting communities that were separated from the city through processes of urban renewal and the construction of the interstate highway system. There are many major infrastructure and street projects going on across the city involving the removal of existing highways. The highways will be replaced with boulevards that are more accessible for pedestrians and friendlier to retail and commercial spaces. One such instance is the push to cap I-95 through the city to restore the urban community and "open land for the housing and retail spaces that form the backbone of any urban neighborhood."[56] Interstate 195 has also been removed, creating the

opportunity to reuse the land and driving the revival of the Providence waterfront. One article describes this area, saying

> "Every key feature of a modern city can be found there, including new housing, green space, transit connections and walkable streets. The fulfillment of a decades-long push to remake the city, the ongoing rebirth of the Providence riverfront has been described as a "dramatic" realization of new urbanist principles."[57]

Finally in this vein, the Highway 6/10 connector is being turned into a street-level boulevard, with the addition of a bike path and park. The goal is to reconnect the neighborhood of Olneyville to the city and "provide opportunities for disenfranchised residents, reduce infrastructure's annual maintenance costs, and add to the city's tax rolls."[58] In each of these instances, the removal of the highway system is used to reinvent part of Providence, while also serving the city economically.

There are also areas of tension in Providence when it comes to development and economic growth, particularly the strained relationship between the city and Brown. Providence did reach an agreement with Brown regarding payments in lieu of taxes where the university will pay 8.7 million dollars a year to the city. However, if Brown were taxed on all its properties throughout Providence, it would owe nearly $50 million per year,[59] representing a significant loss of potential income if the land were used for other purposes. The city is also piloting the Rhode Island Opportunity Zones program, which "allows investors with unrealized capital gains to avoid paying federal taxes on that income if they plow it into funds that invest in opportunity zones and keep it there for at least 10 years."[60] These zones are framed as investments which will improve resident quality of life, but in reality, they are a mechanism through which the city and state can funnel money into disinvested areas and spruce them up, possibly leading to displacement of existing residents. The opportunity zones are also another example of city actions being portrayed as "saving" or "revitalizing" neighborhoods to create further

development in areas which may otherwise not have received investment—but which have mixed results on improving quality of life.

Finally, a major point of contention throughout the news articles was the Providence Port and more generally, the location of heavy industry in south Providence. The area is heavily Black and low-income, leading to significant environmental justice concerns. Despite resident and activist efforts, the city signed a new deal with ProvPort in 2022 to expand port activities in the area. Additionally, in lieu of paying taxes, the port shares nine percent of its revenue with the city each year.[61] This is an increase from previous agreements, as the port is expected to pay nearly $1 million or more each year (an increase from the ~$750,000 they would pay in property taxes) (Barakett, 2023). Residents argued the process for reaching an agreement was rushed through with a lack of transparency, in order to be completed before changeover in City Council members[62]. Despite the rushed process, the new contract has the potential to provide benefits for surrounding communities. Other heavy industry has either been proposed or moved into south Providence, including a debris processing facility and a solid waste transfer station.[63] These moves have brought about serious pushback from residents and the city's Racial and Environmental Justice committee, though these concerns are at odds with the city's need for economic growth and development.

Environmental Benefits

Amidst these developments and challenges, the dominant discourse perpetuates multiple narratives about the benefits of investments in Providence. Articles focused on cleaning up polluted environments or investing in green space as a potential driver for economic development, but also as important to the identity of Providence. Environmental benefits of

greening investments tend to be framed as aligning with the lifestyles of city residents, and there is heavy emphasis on protecting the environment for the environment's sake. For instance, when conveying the importance of the Green Bond's passage, news coverage in Providence described outcomes of the bond's passage by saying "preserving open spaces not only enhances our physical well-being but also contributes to the social and economic vitality of our state."[21] Parks and green space are thus seen as important for individuals and their well-being, as well as the city and state's. Similarly, investments in the city's green infrastructure and stormwater management were framed around improvements to recreation opportunities for residents. One article describes how residents "should not have to worry about toxic algal blooms or silted-up coves in parks that are designed to be an oasis for city residents."[11] In these instances, parks play an important role in improving residents' quality of life while also supporting the city's well-being economically.

Generally, urban greening efforts in Providence were carried out to "make the city more livable and beautiful."[64,65] Investments such as bike trails and urban greenways were viewed as "not only creating safe transportation but making the city look nicer."[42] Through the city's Lots of Hope program, residents can turn empty lots into urban farms, to "create a healthy and resilient local food system" and "turn vacant spaces to productive use, forging the way for urban sustainability in the 21st century."[66] In addition, when discussing tree plantings, city officials described the purpose of planting more trees as "transforming neighborhoods into tree-lined spaces of beauty."[46] Finally, Roger Williams Park, one of the largest in the city, received a new entrance which was "part of a city-wide effort to eliminate abandoned properties."[40] Floating wetlands were also placed in ponds at the park to address water quality issues and were described as "helping to save the ecology of the lake."[8] Overall, by framing investments in greening as

making certain areas of the city "more beautiful," speakers of the dominant discourse imply that these communities were less desirable before being beautified. Therefore, by making spaces green and "more livable," they become new options for the growth machine to profit off as communities become sought after for their amenities.

Attracting New Residents

In Providence, investments in green space and parks were also viewed as opportunities to attract new, younger residents to the city. For example, when discussing the 6/10 highway connector project and potential to turn the highway into a boulevard, multiple newspaper articles emphasized how the land can be turned into parks and green spaces. These green spaces were described as having "great economic benefits for the city, making the land more valuable, and bringing in more taxes."[55] The connector upgrade is also characterized as a "once in a lifetime opportunity that would spur economic development."[67] One article even argues that "if Rhode Island is serious about attracting millennials and talented individuals," they should invest in the boulevard.[65] In addition, the relocation of I-195 and subsequent re-use of the land is described as being part of Providence's revitalization or "urban renaissance."[56] In these instances, building new parks is considered a way to attract a certain type of new resident to Providence while at the same time spurring economic growth and development.

Trails and biking infrastructure were also connected to economic growth in Providence. In the Olneyville neighborhood, the refurbishment of apartments and lofts has occurred alongside the construction of parks and a new bike path along the Woonasquatucket River. Investing in bike infrastructure throughout the city is also described by Mayor Smiley as a way to "nurture community well-being and continue to see economic growth,."[42] When talking about

what makes a city attractive, Jan Brodie, leader of the I-195 Redevelopment Commission, stated "Just like transit helps sell our parcels, so does a bikeable, walkable city. So do our parks. All of these things are components to making it a desirable place to live."[68] This statement shows how for some in Providence, parks and greenspace are not just a community asset, but ways to make the city attractive to new residents in the area.

Quality of Life

Similarly, the dominant discourse focused on the role of investing in the environment and climate in improving resident quality of life. In doing so, it was not uncommon for speakers of the dominant discourse to call on the need for environmental justice. For example, one of the main environmental issues in the city is poor air quality, particularly in low-income communities of color. This low air quality, especially around the Port of Providence, is framed as an environmental injustice across multiple news stories. Some articles make the direct link between poor air quality and racial inequality, for example:

> "Like other places that disproportionately shoulder the burdens of pollution, Washington Park and the neighborhoods around the port are predominantly low-income communities of color. They have the highest asthma rates in Rhode Island, which ranks above all other states for prevalence of the disease."[13]

Although this is just one instance of articulating the relationship between environmental and racial issues, the Providence newspapers regularly call out these injustices and urge for them to be addressed.

Related, some speakers of the dominant discourse also acknowledged the disproportionate impacts of climate change. For instance, one newspaper article explained "Thousands of Rhode Islanders are vulnerable to climate impacts – however some are more at risk than others. Disadvantaged neighborhoods and communities of color are too often climate

disasters' first victims and the last to be considered."[2] The dominant discourse also calls for prioritizing investments in the most vulnerable areas first, for example arguing that "as new investments come, it is crucial that the most at-risk communities are first in line to receive funds to shore up their shorelines."[2] The Providence City Council and city government have taken steps to address these injustices, including passing resolutions to "become an anti-racist institution by investing in its climate justice plan,"[37] to require all large buildings to record and report their energy usage,[69,70] and to codify the Office of Sustainability.[68] These ordinances are described as opportunities to "center climate policy work in racial justice, because you can't do one without the other."[68] These examples showcase how speakers of the dominant discourse and city actors are aware of the "right" language to say, though the implementation of climate action suggests racialized communities are not always the first to be considered in Providence.

Despite these commitments to address the disparate impacts of climate change, Providence still has its share of environmental issues, particularly related to the Port of Providence. National Grid, an energy company in the Northeast, wanted to build a $100 million system to liquefy natural gas at an existing storage tank on the Providence waterfront.[17] The company claimed that the pipeline would be "a more secure source of gas from domestic shale" and that what they were planning to build "in no way deteriorates the environment in the neighborhood."[17] The proposal was eventually approved by federal regulators, stating that "it would not significantly affect the quality of the human environment."[19] However, Mayor Elorza described the facility as "yet another environmental burden in the already overburdened communities of color in Providence" and "an affront to our city's climate, energy, and racial equity goals."[19] Another company, Allens Providence Recycling, wanted to develop a facility near the port to process and recycle construction materials. The company claims to have "already

improved the contaminated site where it plans to build" and that "all operations will take place indoors and the facility will be outfitted with dust-suppression systems."[61] Overall, these competing interests around development and racial equity highlight some of the tensions in Providence between desires to grow the economy and desires to avoid further burdening environmental justice communities with hazards.

Preparedness and Resilience

Finally, in Providence, the dominant discourse also emphasized resilience to sea level rise and associated flooding. A planner at the City of Providence described flooding impacts as inevitable, saying "We're not going to be able to stop this area from flooding. I think it is about making the area as resilient as possible so it can take that flooding."[1] Federal funding initiatives like the Inflation Reduction Act were also portrayed as opportunities to invest in the states' resilience to flooding and sea level rise. One way to do this is through green infrastructure projects, such as salt marshes or oyster beds to "safeguard communities against flooding in addition to storing excess carbon and restoring the state's natural beauty."[6] Much of the discourse about resilience in Providence focused on passing the statewide Green Bond, which would fund multiple coastal resilience projects across Rhode Island and ensure that people maintained access to the coasts as well.[5,6] In Providence, resilience was tied to maintaining existing natural areas for future use and withstanding the stress of future flooding events on infrastructure and people. There was, however, little discussion within the dominant discourse of what being resilient meant, and how marginalized communities would be prioritized in decision-making to protect them from environmental hazards.

Non-dominant Discourse

Despite being told of the environmental, economic, and quality of life benefits of investment, residents within Providence still voiced concerns over environmental issues in their communities, particularly those living around the port. There are two strands of non-dominant discourse present in the city: the goals and concerns of residents who tend to be wealthier and white, and the goals and concerns of low-income, communities of color. Within the first group, many of the residents' concerns focused on building higher density housing, particularly associated with students at Brown and other universities. The pushback from these residents was about the height of new apartment buildings and infill development, with some residents complaining that these types of developments would "threaten the health of their neighborhoods."[53] In a similar vein, some residents ignored concerns of gentrification and housing affordability, arguing instead that "the degree of improvement within communities greatly overshadows these presently unrealized implications."[71]

On the other side, residents of neighborhoods like Fox Point or Washington Park were far more concerned with environmental quality and safety in their communities. As Washington Park resident Linda Perri explained, "We're being exposed day in and day out, year after year. We're choking here."[13] In many of these most impacted neighborhoods, residents are pushing for actions to improve air quality. One such organization is the Providence Coalition of Neighborhood Associations, which issued a statement calling for "urgent action to improve air quality in our city and to address the inequitable planning and zoning practices that concentrate pollution where people with low-incomes and communities of color reside."[61] In addition, residents of these neighborhoods expressed more fears of gentrification and rising housing unaffordability. One resident of South Providence explained, "it's not rocket science, I think we

all know what's going on here," when asked about gentrification in her neighborhood.[51] Raymond Watson, director of the Mount Hope Neighborhood Association also expressed some of these concerns, saying:

> "I'm always with bettering the neighborhood. But I also know that when you better a neighborhood, of course it raises the value of neighborhood and the adverse effects that can have on community members who are there already."[72]

In general, this opposing perspective was far more concerned with large-scale pressure on the Providence housing market and changes to their neighborhoods, as well as making air safer to breathe. These examples highlight the distinct differences amongst residents in Providence, as well as which communities can effectively participate in the decision-making process to improve their living conditions. Residents concerned about higher density development frequently voiced their concerns at community or city council meetings, while residents dealing with environmental issues often spoke directly to the press or worked with non-profit organizations to share their perspectives. Who can participate in and be taken seriously during city decision-making has significant implications for how Providence (and other cities) makes progress on environmental justice moving into the future.

Summary

Providence is one of the first cities of its size to create and implement a *Climate Justice Plan*, which is an achievement in itself. The city has taken some actions to limit new polluting industries in the hopes of improving environmental quality, but there are still serious concerns amongst residents regarding gentrification and access to housing. As the city continues to invest in parks, bike infrastructure, and climate adaptation, these concerns and existing inequities are likely to be exacerbated. Further, within the Providence planning documents and dominant

discourse, there is an undercurrent of preserving the status quo which exists within the city. By using historic preservation districts or pushing back on higher density housing, some speakers of the dominant discourse resist changes that would make Providence more sustainable. These powerful residents seem unwilling to transform the city, instead relying on efforts to maintain Providence as it is. This brings into question the influence of the climate *justice* portion of the plan and environmental justice initiatives in the city.

When investments do occur, often the economic and environmental benefits are at the forefront, despite speakers of the dominant discourse claiming to value environmental justice. Although economic development and addressing environmental justice concerns are not mutually exclusive, in many instances the lack of protections for marginalized communities that are being remediated further exacerbates injustices. For example, new parks or greenways in Providence are framed as opportunities to reconnect parts of the city, draw in new residents, and spur economic activity. This narrative overlooks the realities of poor communities of color in Providence who often lack healthy, safe environments to live in, pay higher costs for housing and energy, and are disproportionately exposed to environmental hazards. The concerns of these communities tend to be overlooked, or at least not prioritized in the same ways as concerns of white residents who are pushing back against the very actions that would benefit those most vulnerable to climate change. In this sense, the growth machine operates to advance economic opportunities via greening and beautifying "blighted" neighborhoods while also maintaining the status quo in other, whiter spaces. In creating a narrative that communities of color must be "beautified" or "revitalized," while white neighborhoods should be preserved, the growth machine operates in the interests of racial capitalism and of further exploiting communities of color for the gain of the rich and powerful. Rather than remediating poor environments or

constructing new parks and leaving the neighborhood be, Providence (and other cities) could better redistribute the economic benefits of development and create protections for affordable housing that would alleviate the potential for displacement. In addition, redistributive measures (such as utilizing a community benefits ordinance) would ensure that communities which have previously been harmed by environmental degradation truly benefit from their clean up and any subsequent development.

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Chapter 7: Discussion and Conclusion

Detroit, Cincinnati, and Providence are pursuing climate adaptation, sustainability, and urban greening in unique ways. Members of the green growth coalition in each of the cities use their power and influence to perpetuate a dominant discourse about greening which centers parks and sustainability as tools for economic growth. Whether that be an emphasis on vacant land and green infrastructure as in Detroit, building bike lanes and new parks in Cincinnati, or renewable energy and resilience efforts in Providence, the overarching goal of these investments is to make these cities desirable places to live for new residents. **This study adds to our understanding of how racial dynamics influence discourse around urban greening and sustainability** by analyzing the racialized messages used to support green development and economic growth. Green and sustainable development in legacy cities is shaped by narratives of renewal and revitalization, focusing on previously overlooked neighborhoods as a means for making further profit. **Additionally, the results from this study add further evidence to "green growth" literature which challenges the notion that urban greening and climate adaptation is universally good** (Angelo, 2019; Anguelovski et al., 2019; Anguelovski et al., 2019; Checker, 2011; Coutts & Hahn, 2015; Wolch et al., 2014)**.** Ultimately, the discourse generated by the green growth coalition creates a differential valuation of neighborhoods, influencing which communities receive investment in which ways. This process of differently valuing communities of color, arguing that they should be "revitalized," and then used for further profit is evidence of racial capitalism, and adds to our understanding of how green development proceeds in legacy cities.

Detroit Summary

In Detroit, local government officials have vowed to address the existence of "two Detroits," arguing the city is making a comeback from its bankrupt past. While there is evidence of ongoing growth, development processes have not been fair. In addition, decision-making processes have allowed for the city to be remade in the image of wealthy investors who stand to benefit from a "new Detroit." Emphasizing select areas of the city's need for beautification, stabilization, or blight remediation, speakers of the dominant discourse perpetuate narratives about which neighborhoods are viewed as "less than" and in need of saving. At the same time, major investments in downtown, whether that be new stadiums, hospitals, or a massive redevelopment of the riverfront, are framed as benefiting existing residents and improving their quality of life, while also providing economic opportunities for the city. These narratives seemingly underplay the reality that many Detroiters lack access to a personal vehicle and therefore lack access to those new amenities. Aside from accessibility, many of the landmark investments in Detroit are centered in the downtown area, making it difficult to refute the notion that downtown development is paramount.

Cincinnati Summary

The situation is similar in Cincinnati, where decision-makers emphasize creating green jobs and advancing the green economy to draw in more large businesses and residents. In downtown Cincinnati, investments included multi-million-dollar parks funded by private businesses, such as the Smale Riverfront. Additionally, the city frequently cites the need for economic revitalization and brownfield remediation in communities of color to justify new development. Using narratives of "fixing" or "cleaning up" urban spaces, city decision-makers

imply certain neighborhoods are lacking and require intervention to be made more beautiful. Instead, these places are remediated and then used to advance further development, particularly in the form of new parks or greenways (e.g., Lick Run and Mill Creek).

For example, Washington and Inwood Parks in Over the Rhine, were "beautified" and remade with new amenities such as parkside cafes and amphitheaters for live music. These investments occurred in order to "clean up" the neighborhood alongside the construction of the FC Cincinnati stadium. Simultaneously, residents of these neighborhoods fear rising housing costs and potential gentrification. Residents describe changes they have witnessed in their communities like the emergence of new coffee shops and restaurants that alter the neighborhood composition. The tension between the demands of white residents (e.g., more bike lanes, preservation of Burnet Woods) and demands of residents of color (e.g., to have more say over development in their neighborhoods) highlights the different realities of Cincinnati residents. Some live in a city responsive to their needs, while others live in a city where they are told their communities need saving to be worthwhile. In addition, there is a stark difference in how residents of Cincinnati are prioritized, despite the city claiming to be focused on equity. Until all residents' concerns are listened to, this claim will continue to fall short and urban greening will continue to serve the interests of the societal elite.

Providence Summary

Finally, the discourse in Providence also emphasizes the need for investment in parks and climate adaptation, though from the perspective of improving resident quality of life and becoming more resilient as a city. While there has been more state and city-level climate action taken in Rhode Island and Providence, many of the solutions proposed for climate adaptation are

individualistic, such as weatherization or installing more efficient heating and cooling systems in homes. However, these actions are out of reach for low-income residents, who often live in homes that would benefit the most from weatherization. Investments in parks and greenways are also framed as opportunities for economic growth and tools for attracting new, younger residents to the city. In neighborhoods with more residents of color, green amenities are used to address blight and clean up communities. Multiple debates have divided the city: one about the benefits of renewable energy versus land preservation and a second about changes to the zoning code to allow for higher density housing development. In each of these instances, more privileged residents are able to use their resources and relative power in society to advocate for their desires while marginalized communities' concerns are overlooked. Despite having a climate *justice* plan, Providence still pursues urban greening and adaptation initiatives which are unequal and may further entrench inequality in the city.

General Discussion

Discourse is a powerful tool for controlling public opinion on a topic and reinforcing the "correct" way to pursue action in society. When it comes to urban greening and sustainability, discourse nationally often portrays greening as a universal good from which all members of society will benefit (Angelo, 2019). As Angelo (2019) explains, this perspective shows up in academic theory, with major journals arguing greening "creates or adds value" to urban spaces. This thinking has translated into practice as cities across the country continue to pursue urban greening and sustainability initiatives at increasing rates (Malecha et al., 2025). However, the role of this discourse around urban greening has been relatively understudied in post-industrial legacy cities, places which are often framed as having an opportunity to pursue equitable

greening and sustainability more so than strong market cities across the country (Hughes, 2020; Kronenberger et al., 2025). Therefore, this dissertation expands our understanding of discourse surrounding urban greening and sustainability initiatives in legacy cities.

Dominant Discourse – Differential Valuation

Racial capitalism helps to explain the creation of the differential valuation present in the legacy cities studied here, as people and neighborhoods are valued based on how they are racialized (Bledsoe & Wright, 2019; Dantzler, 2021; Dantzler & Reynolds, 2020; Dantzler & Hackworth, 2025; Kelley, 2017). In the United States, there is a long-standing history of racial segregation within urban spaces. As Rucks-Ahidiana (2022) demonstrates, both class *and* race play a significant role in where people have lived in the past and where they live now. In the early to mid-20th century, powerful white members of society were able to ensure people of color remained segregated in cities across the country using threats of physical violence and policy tools. As a legacy result of these practices, and processes of urban renewal, cities today remain informally segregated. This segregation, and the differential valuation of communities of color perpetuated by the discourse of the growth machine, creates areas which are disinvested and often overlooked. Racial capitalism can explain this disinvestment as well – processes such as redlining were highly racialized, and at the same time, provided opportunities for investment and profit in white neighborhoods (Rucks-Ahidiana, 2022). As a result, communities of color have been overlooked in city planning initiatives for decades, and this new generation of green and sustainable development is no different.

The narratives created by the dominant discourse in Detroit, Cincinnati, and Providence around urban greening and sustainability are not accidental. In framing certain areas of each city

as in need of revitalization, beautification, or stabilization, the dominant discourse signals multiple things. First, and perhaps most significantly, is that these areas of the city are viewed differently, and as less than others. Whether they lack amenities that white residents might desire, contain dilapidated housing, or because these neighborhoods have experienced decades of disinvestment, neighborhoods of color are frequently considered "less than" in the eyes of the media and dominant discourse. Further, this language of "fixing" a neighborhood is most often applied to those that are predominantly Black. This suggests that according to the growth coalition, these areas are insufficient as they are and are incapable of improving themselves. When this "saving" occurs, neighborhoods are often developed in ways which go against the wishes of existing residents, but in ways which stand to make the growth machine profit. One example is the construction of the FC Cincinnati stadium in Over the Rhine – despite residents resisting the stadium, the city decided to build anyways. With the stadium came major investments in neighborhood parks, and as a result the neighborhood continues to "improve," with higher costs of living and an influx of new businesses.

In addition, promoting investments and development as opportunities to improve quality of life or bring jobs to poor communities further reinforces the savior logic employed by the growth machine (Nickels et al., 2025). By signaling to existing residents that their lives lack quality or that they need better paying jobs, the growth machine further emphasizes the difference between neighborhoods it plans to "save" and those that are left untouched by development (Safransky, 2014). In "saving" these neighborhoods, cities take advantage of devalued land by turning long-standing blighted neighborhoods into parks to "become destinations," or building greenways to "connect communities." While these amenities do

provide benefits to residents who are able to access them (e.g., exercise, improved mental health), they also rely on the exploitation of neighborhoods which were previously overlooked. These narratives further reinforce the idea that existing neighborhoods of color in the three cities are insufficient as they are.

Ultimately, the discourse used by the growth machine contains racial undertones, highlighting the racialized logic which guides development in these legacy cities. This logic has been documented in other studies on the growth machine, and, as Rucks-Ahidiana et al. (2025) explains, it "influences where developers build, where city governments use eminent domain to demolish, and how the news media describes neighborhoods and assesses neighborhood change." The legacy cities studied here are similar; powerful outside interests influence how development occurs and which neighborhoods are considered valuable. The differential valuation of Black lives driven by racial capitalism means that communities of color are harmed more than their white counterparts when legacy cities pursue economic growth, even in the name of urban greening (Rucks-Ahidiana, 2022; Rucks-Ahidiana et al., 2025). Therefore, as other studies on the growth machine (not necessarily the green growth machine) demonstrate, there is evidence of racialized growth pressures in legacy cities – illustrating a need to revise our conception of the green growth machine to include the influence of systemic racism in green urban development.

In addition, the remaking of urban spaces often leads to centering white ideals of nature. When renovations or construction of parks, green space, and green amenities occur, these spaces are often designed specifically to attract wealthy, white residents to the area. This happens implicitly in some instances, for example the growth of cafes around Washington Park in Cincinnati after the city spent millions to renovate the park. The process can also happen more

explicitly, such as when decision-makers in Providence invested in the riverfront to "attract millennials and talented professionals to the city." Whether the investment is grand riverfront parks, new bike lanes or greenways, or simply the "reimagining" of a park in a predominantly Black neighborhood, often the changes made reflect the implicit or explicit desires of white residents. Members of the growth machine push for parks to look a certain way in these cities, with the goal of making areas around new parks and green amenities more enticing to wealthier, whiter residents.

At the same time, however, the growth machine may underplay pollution and other environmental justice issues. To have a profitable green city still requires destructive land uses such as landfills, factories, or other sectors of the economy, particularly as resources continue to be exploited under the treadmill of production (Gould et al., 2004, 2008; Schnaiberg, 1980; Schnaiberg & Gould, 1994). For example, despite efforts to green downtown Detroit, southwest Detroit still has some of the worst air quality in Michigan. This problem is likely to be exacerbated with the opening of the Gordie Howe International Bridge to Windsor, Ontario, which is projected to increase truck traffic through predominantly low-income communities of color. Similar issues exist in Cincinnati and Providence. For example, communities of color are exposed to worse air quality around the Port of Providence. In Cincinnati, communities of color along Mill Creek are exposed to higher levels of industrial pollution from freight operations and the presence of a major highway. Despite trying to green their image, these cities still rely on heavy industry to support portions of their economies, as the transition to the green economy is ongoing. The burden of environmental injustices is placed on the communities least able to fight back, and when they do speak up, their voices have been at times ignored.

This again emphasizes how racial capitalism guides the economic growth cities are pursuing, as communities of color are forced to shoulder the negative impacts of growth while wealthy, white outside investors profit. As Laura Pulido (2017) explains, Black communities and Black bodies are treated as "sinks" for environmental harms. In the legacy cities studied in this dissertation, communities of color are treated as sinks, despite being told that they will experience economic opportunities and quality of life improvements from investments being made. In many instances, the claims that Black communities will benefit economically from growth have not materialized, as for example in Detroit, construction companies failed to hire the required percentage of Detroit residents for new development projects. Instead, these companies have chosen to bring in outside workers and pay fines to the city. Ultimately, while the speakers of the dominant discourse try to display the positive outcomes that existing residents will experience from development, these benefits have not occurred, leaving residents with unfulfilled promises.

Implications for Environmental Justice

Distributive Justice

The ways the growth coalitions in Detroit, Cincinnati, and Providence pursue economic development through urban greening have implications for environmental justice outcomes. In terms of distributive justice, new parks, green amenities, and developments are often concentrated in core parts of each of the cities. Building parks according to the 'white ideals of nature' means creating large destination parks in places often without walking access for poor communities (a form of exclusion described in Sovacool et al., 2015)—which is also a distributive injustice. In Detroit, new developments are primarily focused in the downtown core

and along the riverfront. Construction of the Joe Louis Greenway has been ongoing in phases, with the majority of segments in southwest Detroit remaining unfunded or incomplete. While speakers of the dominant discourse claim that these parks will "bring communities together," in many instances it is unclear how residents would access the new parks without personal transportation. As many Detroiters do not own a car and public transportation in the city is lacking, this begs the question of how easily residents will be able to access the parks, which is a key component of distributive justice (Rigolon et al., 2018).

Distributive justice issues arise in Cincinnati as well. Development is focused in the downtown core, especially along the Smale Riverfront park. The riverfront in Cincinnati has some of the highest incomes and least racially diverse neighborhoods, yet parks throughout this entire area are receiving investment, such as the Eden Park conservatory conservation project or Lytle Park's makeover. Further, in the parks' department 3-year plan, projects are concentrated in whiter, wealthier communities compared to those neighborhoods that have lower incomes and higher proportions of Black residents. Another example is the prioritization of Wasson Way being constructed over segments of greenways in other parts of Cincinnati, as it is located in a predominantly white and wealthy part of the city.

This is not to say that some vulnerable communities are not prioritized across the three cities. In Detroit, the Brightmoor, Cody Rouge, and Jefferson Chalmers neighborhoods have received large investments in green stormwater infrastructure to address routine flooding problems. Similarly, Cincinnati constructed the Lick Run greenway in areas with frequent flooding to address runoff challenges. The city has also engaged with neighborhoods such as the Beekman Corridor and Avondale through the Climate Safe Neighborhoods program, producing localized adaptation plans for these communities. In Providence, Olneyville has also received its

share of investment in green infrastructure to reduce runoff problems. These are important first steps in making urban greening investments across the cities, though they pale in comparison to the large-scale greening projects underway in other areas. Moving forward, it will be important to pay attention to the location of new parks and green infrastructure, and how the placement of these amenities does (or does not) contribute to distributive justice.

Procedural Justice

Further exacerbating environmental justice issues, when residents are involved in planning and decision-making across each of the three cities, engagement efforts tend to fall short. This study also emphasizes previous research in environmental justice which argues that white residents are more able participate in and effectively advocate for what they want in cities (Bell & Carrick, 2018; Gibson-Wood & Wakefield, 2013; Meerow et al., 2019). In Detroit, public engagement for the climate and parks plans included community surveys and focus groups with residents. In Providence, public engagement was similar, though the Racial and Environmental Justice Committee advocates for equity at the city-level. Cincinnati's public engagement efforts were arguably the most just of the three cities, but they still fall short of true procedural justice, relying on public meetings in the creation of the *Green Cincinnati Plan* to meet resident needs. Within the Cincinnati Parks Department, public engagement was more traditional, such as posting fliers and emailing information about potential parks projects in a given neighborhood. Other engagement mechanisms included inviting residents to share their thoughts at public meetings or via a survey.

Despite these efforts to include residents in the planning process, the experiences, wants, and demands of some were still overlooked. Existing processes for resident involvement and

oversight, such as the community benefits ordinance in Detroit, still fall short of justice as these agreements lack enforcement teeth to hold developers accountable to their promises. In some cases across the three cities, resident desires are overlooked. One example is when Over The Rhine community members pushed back against the construction of the FC Cincinnati stadium, but their requests were denied and the stadium was ultimately built. In each of the cities, the demands of some (often white) residents are considered and listened to, like community members blocking construction in Burnet Woods in Cincinnati, while communities of color are dismissed when asking for air quality monitoring in their neighborhoods.

In addition, both the dominant and non-dominant discourses do not emphasize housing policy as a mechanism for addressing some displacement pressures that urban greening can bring. One recommendation for cities to improve distributive justice, particularly when it concerns who has access to new green space and green amenities is to emphasize affordable housing, increase housing density, and create protections against displacement for communities. This relates to creating stronger community benefits ordinances and requiring more from developers, as these ordinances and policy tools can be used to ensure residents truly benefit from major developments and are heard in the process.

Recognition Justice

In terms of recognition justice, some of the cities included here have not officially acknowledged, in their climate and greening decision-making, their racist pasts which are responsible for the inequality present today. Providence is the exception, with multiple city documents and plans noting the inequitable exposure to pollutants and other environmental injustices for communities of color. However, the city could go further in recognizing their role

in creating these injustices in the first place, whether that be acknowledging past planning decisions, the legacies of urban renewal, or some other combination of recognition. In Detroit and Cincinnati, there is even less acknowledgement of racism in past city decisions. In these cities, environmental justice is talked about as something to achieve and work for in the future, but there is little recognition of the root causes of inequality. Although recognition alone will not necessarily alter development outcomes, it is an important first step for cities looking to pursue more equitable greening and development. Further, the lack of recognition justice in Detroit and Cincinnati advances white ideals of nature. By failing to acknowledge how different communities have different needs for green space and employing predominantly white park developers and architects to design new spaces, cities encourage a specific type of urban greening that can overlook various residents (Mullenbach et al., 2022).

In addition, speakers of the dominant discourse tended to use equity and environmental justice as buzzwords. This too, is an example of recognition injustice, as influential members of the growth coalition claim to prioritize equity and justice but fail to accurately describe it. When emphasizing how a "rising tide will lift all boats" or that all community members will benefit from a certain action, speakers are utilizing equity-based language but describing equality. This aligns with findings from other studies (Arik, 2024; Fiack et al., 2021; Kronenberger et al., 2025; Schrock et al., 2015) where city officials and decision-makers employ equity incorrectly. This virtue signaling represents recognition injustice because members of the growth coalition use language based in environmental justice without truly understanding what they are arguing for while taking advantage of the rising importance of pursuing equity.

The injustices present throughout the legacy cities in this dissertation stem from the political economy of racial capitalism and its influence on actions of the growth machine

(Bledsoe & Wright, 2019; Rucks-Ahidiana et al., 2025). By using discourse and its inherent power in society, members of the growth coalition reinforce existing inequities created from the uneven development associated with racial capitalism. In doing so, these powerful actors determine which neighborhoods receive investment and how. At the same time, the growth machine tells residents they will benefit from investment, despite these benefits largely going unrealized. When residents do try to push back or argue for a more active role in designing development, these desires tend to be overlooked, and the growth coalition pursues its vision for the city instead.

Dissertation Contribution

Prior research has argued that greening legacy cities with cooler real estate markets may not lead to the same social and economic pressures (e.g., gentrification) as those observed in hotter, more desirable real estate markets (Gould & Lewis, 2017). However, the results of this dissertation call that hypothesis into question, as some residents still describe experiencing rising housing unaffordability associated with development in their neighborhoods. Additionally, the development and investment decisions being pursued by the growth machine in these three cities rely on profiting off of Black communities. In the pursuit of a green, sustainable city (and economic growth) made in the image of the growth coalition, these actors further exacerbate the existing injustices already present in legacy cities, calling into question the so-called benefits of urban greening.

Overall, this study demonstrates *how* the dominant discourse of the green growth machine describes investments related to greening and sustainability in legacy cities as racially charged and in service of economic growth. In addition, the results emphasize how racial

capitalism influences development decisions (consciously or not). In documenting the racialized discourse employed across these three cities, this study argues for the role of race and racism to be introduced into the theoretical grounding of the green growth machine. As a result, any greening decisions which are made in the legacy cities described here must be considered through the lens of racial capitalism – a system which profits off of the longstanding devaluation of Black lives in American society. In turn, these decisions have serious ramifications for environmental justice outcomes, including who has access to green amenities, and safer, more resilient neighborhoods.

Study Limitations

No research study is completed without limitations. One of the largest limitations of this dissertation is the lack of interviews completed with participants from Providence. In Detroit and Cincinnati, interview participants were able to provide behind-the-scenes context for their plans and planning processes. Given the lack of interviews conducted in Providence, this information was not available, and the analysis was performed solely on planning documents and news media coverage. Therefore, some of the nuance of development and planning decisions ongoing in Providence is not included here. It was also more difficult to assess how the local government decision-makers in Providence are currently envisioning the future of their city. Additionally, interview participants from Detroit and Cincinnati worked primarily in sustainability or parks departments and non-profits within their cities. Although the purpose of this study was to understand decisions around urban greening and sustainability, other departments make sustainability-related decisions as well. By choosing to focus interview participant recruitment

on a few departments, I left out other perspectives that could have provided more information about the pursuit of sustainable development in each city.

Another limitation is that this study only included city plans specifically related to climate adaptation, sustainability, and parks, and does not include city comprehensive or master plans. Although these documents would have information relevant to economic development and environmental planning, I chose to focus my analysis on plans solely about parks and climate adaptation in order to understand the discourse around these topics. In doing so, this study leaves out information that may have been included in master or comprehensive plans, such as decisions related to zoning and density of development being allowed, both of which have important implications for how cities pursue sustainability and growth in the future.

Finally, the media is a key part of the growth coalition and assists other coalition members in influencing the discourse in their respective cities. As such, by analyzing discourse from newspapers, I was able to understand discourse from the dominant speakers. However, non-dominant discourses are inherently more disparate and may not be as well represented because of their grassroots nature and a lack of access to the media. Because of the media's role in perpetuating growth, and due to the scattered nature of the non-dominant discourse, it is possible that focusing on city documents and media coverage left out perspectives of other non-dominant speakers. Other publications and materials, such as those from non-profits, community activists, or neighborhood associations, as well as social media or blog posts, and interviews with residents would have provided more insight into the non-dominant discourse rather than solely focusing on city plans and newspaper articles.

Future Research

Drawing on the limitations described above, future studies could expand this research in a few ways. One direction would be to focus on resident perspectives on and experiences with development more exclusively. Given the nature of this study (and the time limits associated with doing a dissertation), it was not possible to do the type of in-depth, community-engaged research that this type of research question requires. Future studies could build relationships with community organizations and residents in specific neighborhoods targeted for, or already experiencing, development. Then, residents could be interviewed about their experiences both engaging in the planning process and documenting how their communities are changing in response to development. Other potential data sources such as social media posts or reports and white papers from community organizations and non-profits would also aid in understanding the non-dominant discourse more clearly. A study of this nature could add to our understanding of how the growth coalition and growth pressures impact existing residents, and how the perspectives of these residents are (or are not) included in the planning process.

Related to the discourse, future research could also explore the dominant discourse in more depth. While it is inherently more cohesive than the non-dominant discourse, there is still variation between speakers, especially between developers/local government actors and boosters of the discourse such as professors or other outside experts. While these boosters help lend legitimacy to the messages being shared in the dominant discourse, a later study could further interrogate nuances in the discourse between the leaders and boosters. In addition, the political leanings of media sources likely influenced the ultimate message being shared. Another approach to analyzing the dominant discourse could be to compare messages across newspaper sources to identify variation. A third component could include analyzing how the dominant

discourse changes over time; for example, determining if certain topics become more popular over time or if there is sustained messaging from the growth coalition.

Other future studies could also incorporate comprehensive and master plans from legacy cities, in addition to parks and climate adaptation or sustainability plans. One interesting study could include a network analysis of existing planning documents in legacy cities to document synergies and differences in plan priorities, goals, and actions. This would potentially provide insight into how city plans work together (or not) and the role of a network of policies and actions in advancing climate adaptation and sustainability efforts in cities across the country. Similarly, future studies could interview local government employees from more departments within cities, taking an approach of local municipal governments as systems, rather than individual departments acting in isolation. Multiple interview participants I spoke with described efforts they had undertaken to integrate principles of greening and sustainability in other departments they worked with. They explained how sustainable planning and development is not something which occurs in a silo but rather should be integrated across the government to be successful. Further investigating how sustainability principles are being carried through to other departments would potentially give insight into how cities are prioritizing greening and climate action in their planning for the future.

Conclusion

Overall, the legacy cities described in this dissertation are attempting to balance their need for economic growth with pursuing sustainable, green futures. Although the outcomes thus far may fall short of intentions, the amenities being built in these cities do have the potential to benefit residents. And, despite the fact that previous planning and development may not have been as equitable as it could have been, the inclusion of equity and environmental justice in city

plans is a step forward. However, the transformative changes that are needed when it comes to urban planning and addressing climate change require careful attention to systemic injustices and race. It will be imperative that cities, especially legacy cities, face the injustices created by development pressures and move forward in ways which truly center the needs of residents who have been historically overlooked. Whether this means creating more inclusive housing policy and urban planning processes or holding developers accountable for the benefits they promise to residents, the tools to pursue an equitable, green city already exist – they just need to be utilized to their full potential.

Bunyan Bryant, a leader in the environmental justice field, defined environmentally just communities as places where "people can interact with confidence that the environment is safe, nurturing, and productive," occurring when "people can realize their highest potential" and "where both cultural and biological diversity are respected and highly revered" (Bryant, 1995). In this spirit, cities have the opportunity to be places where people *can* realize their highest potential, living healthier lives in safe environments. To achieve this will take significant and dedicated work, but cities, particularly legacy cities, can be leaders in creating urban environments where people truly can live, work, and play.

At the same time, the impacts of climate change are on the horizon, and in some instances, already here. In the face of a federal administration which is hostile to environmental protections and climate actions, the responsibility to act falls on states and cities. Following the passage of the Bipartisan Infrastructure Law and the Inflation Reduction Act, cities across the nation started planning for climate change, including places that had never done so before. Although the flow of federal dollars may have slowed, the plans created to adapt to climate

change still exist. Cities will have to be creative, but can lead the way on building resilient, climate-prepared spaces which will withstand the extremes of a warmer world.

Those resilient spaces, along with parks, urban green space, and other environmental amenities are something that all people deserve to have access to. In creating walkable, dense, urban spaces, cities can pursue sustainability, address housing affordability challenges, and give residents access to parks. However, ensuring that these communities are available to everyone, not just the societal elite, will remain a challenge for cities as they develop into the future. By drawing on established principles of environmental justice, such as ensuring everyone has access to healthy and safe environments, that all people can participate in and oversee planning decisions, and that past injustices are recognized, cities can work towards becoming spaces of opportunity and sustainability that will propel us forward into the future.

Supplemental Information

Appendix 1: Plans Included for Analysis

Name of Plan	Year Adopted
Detroit, Michigan	
Detroit Sustainability Action Agenda	2017
Detroit Climate Action Plan	2017
Sustainability Action Agenda 2 Year Progress Update	2019
Parks and Recreation Strategic Plan	2022
Detroit Climate Strategy	2023
Cincinnati, Ohio	
Green Cincinnati Plan	2018
Cincinnati Park Board Natural Resources Management Plan	2018
Cincinnati Parks Annual Report	2023
Cincinnati Parks Three Year Strategic Plan	2023
Green Cincinnati Plan	2023
Providence, Rhode Island	
Sustainable Providence	2014
Equity in Sustainability Report	2017
Just Providence Framework	2017
Climate Justice Plan	2019
Providence Parks Strategic Plan	2023
Providence Tree Plan	2023

Appendix 2: Interview Guide

1. Introductory questions
    a. Name, title, years of experience, role in organization/developing plan
2. Creating a given plan
    a. Walk me through the process of creating the plan. How long did it take, what caused the city to start writing/updating?
    b. How were plan priorities determined?
    c. What did the community engagement process look like?
    d. What do you wish had been included in the plan that didn't make it into the final version?
    e. Where did the funding for different actions in the plan come from?
3. Plan implementation
    a. What elements from the plan have been implemented?
        i. Can you talk about any challenges you encountered during the process?
        ii. Why did you choose these actions to tackle first?
        iii. What was the biggest positive outcome of the plan? What about the biggest negative?
    b. Given that funding is limited, how does the city choose priority areas/projects for investment?
    c. What has been the most challenging part of implementing a plan?
    d. What would you consider a successful implementation to look like?
    e. How do you balance the need for economic growth with greening/climate adaptation/sustainability?
4. Concluding questions
    a. What other challenges do you expect the city to face related to climate change and social inequality?
    b. What has been the most positive thing to come out of this planning process? The biggest challenge?
    c. Is there anyone else you think I should talk to?
    d. Is there anything I didn't ask about but that you think I should know?

Appendix 3: Code counts for strands from discourse analysis of newspapers

Parent Code	Child Codes	Cincinnati	Detroit	Providence
Benefits of Parks		24	42	15
	Community connectedness	14	41	14
Biking		38	26	22
Business vs Environment		5	15	15
Climate Change		23	6	56
	Air Quality	7	19	15
	Flooding	9	31	60
	Heat	0	4	0
	Impacts	2	8	34
Climate or Sustainability Plan		36	1	26
Community Engagement		76	119	48
Economic Development		61	147	44
	Green Development	17	38	7
Economic Sense		11	26	20
Energy Efficiency		7	5	29
Environmental Justice		21	14	24
	Distributive	39	71	65
	Procedural	9	25	17
	Recognition	16	22	16
Equity		34	28	17
	All Residents Language	8	38	10
Funding		15	27	36
	Federal funding	25	50	50
	Green infrastructure	2	18	6
	Housing	7	33	1
	Neighborhoods	10	11	0
	Parks	75	63	16
	Specific Amount	10	71	22

General Investment		7	41	4
	Energy	3	8	36
	Gray infrastructure	26	31	36
	Green infrastructure	7	37	20
	Parks	77	181	36
General Parks		35	64	15
Gentrification		20	28	12
Gentrification Impacts		7	11	3
	Displacement	17	20	12
	Newcomers	7	25	2
	Positive outcomes	3	10	3
	Resident gentrification concerns	14	26	1
	Rising rents or values	14	24	9
Goals of investment		14	37	7
	Beautification	13	39	13
	Economic opportunity	24	37	15
	Environmental restoration	9	9	23
	Growth	17	35	10
	Live, work, play	7	18	10
	Multiple benefits/cobenefits	10	25	5
	New residents	5	15	5
	Preparedness/resilience	6	6	21
	Quality of life	17	38	27
	Remediating blight	7	64	7
	Stability	3	18	0
Green infrastructure		18	46	34

	Rain gardens/bioretention	1	30	12
	Trees	15	55	24
Green space		23	163	63
Greenwashing		9	17	2
Helping developers		8	24	30
	Brownfield credits	0	16	0
	Other incentives	5	21	11
	Tax abatements	6	27	5
	TIF districts	3	2	0
Homelessness		13	2	2
Housing		20	21	26
	Affordable housing	39	68	24
Individual Solutions		14	32	29
	Tax credits	1	2	1
Jobs.		32	84	26
	Greening leading to jobs	14	23	13
Neoliberal		11	5	13
NIMBY		11	1	10
Nonprofits		31	42	13
Partnerships		36	80	34
Pre-investment		9	77	18
Renewable Energy		14	7	37
	Solar	13	7	50
	Wind	0	0	22
Resilience		7	7	31
Revitalization		29	74	35
Transit		42	6	32
Vacant Land		13	146	13
Walkability		12	4	4
	About being walkable	20	19	25
	Walkable but more visionary	3	17	2
Zoning		7	11	20

Appendix 4: Code counts for functions from discourse analysis of newspapers

Parent Code	Child Codes	Cincinnati	Detroit	Providence
Comparisons to Other Places		22	24	35
Doing this for the Residents		7	41	7
Environmental Justice		21	14	24
	Distributive	39	71	65
	Procedural	9	25	17
	Recognition	16	22	16
Equity		34	28	17
	All Residents Language	8	38	10
Exaggeration		21	58	34
Quotes - Non dominant				
	Activists or community organizations	53	85	33
	Environmental organizations	28	31	51
Quotes - Dominant				
	Developers	3	80	10
	Local gov	121	154	128
	Outside experts	45	47	50
	Partners	29	93	64
	Politicians	0	28	44
	Private sector	33	130	43
	Universities	33	36	41
Quotes - Resident		9	18	6

	Positive	19	64	9
	Negative	30	66	23
Resilience		7	7	31
Revitalization		29	74	35
Statistics		29	43	26

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