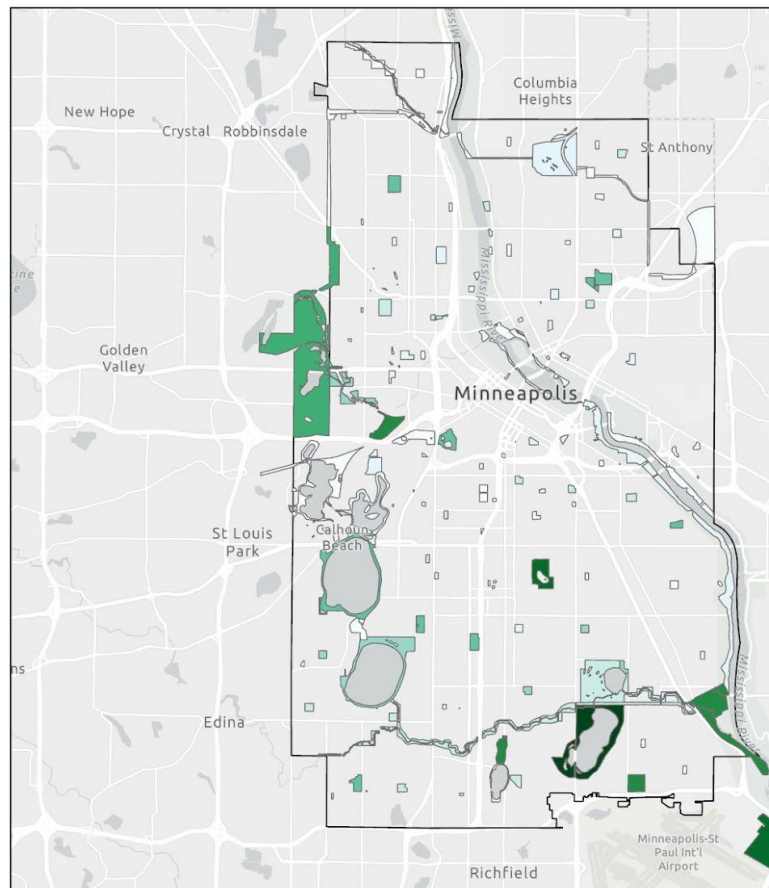


# CREATE Initiative

## Popular Education for Environmental and Racial Justice in Minneapolis



### Prepared By

Stefan Hankerson, Kelsey Poljacik, Rebecca Walker, Alexander Webb, Aaron Westling

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## **Acknowledgements**

This report was prepared by Stefan Hankerson, Kelsey Poljacik, Rebecca Walker, Alexander Webb, and Aaron Westling for the University of Minnesota's CREATE Initiative. This report is a semester-long project for the Fall 2019 PA 5262 Neighborhood Revitalization Theories and Strategies class at the Humphrey School of Public Affairs, University of Minnesota. Listed below are the people who guided and instructed us through this process, and gave us the opportunity to work on this project.

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## Executive Summary

The CREATE Initiative works on addressing real-world problems of (in)equitable access to “environmental amenities while fostering environmental, economic, and racial justice.” The CREATE Initiative is funded by the University of Minnesota but works to co-develop research with community partners, recognizing the need to address urgent environmental issues without reproducing historical inequities by including historically underrepresented peoples. Given this foundational underpinning, our work this semester focused on creating a popular education tool to further explore the history and current reproductions of environmental and racial injustice in Minneapolis. Ultimately, we developed a set of maps which convey related narratives on these themes. These maps include visualizations of topics such as historical racial covenants, concentrations of toxic sites, geographic disparities in park amenities, and trends of gentrification, among others. We created this popular education tool for local community-based organizations with the understanding that the history behind contemporary injustices in Minneapolis provides a jumping-off point for using spatial data to inform the narratives of racial and environmental injustice, uneven economic development, and gentrification. While we recognize that maps tell only one part of the story and are limited in what they can convey, it is our hope that this popular education tool can help mobilize community members around these issues and develop an avenue for CREATE to pursue future partnerships.

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# Popular Education for Environmental and Racial Justice in Minneapolis

## Client: The CREATE Initiative

Throughout the course of the semester we worked closely with the [CREATE Initiative](#) at the University of Minnesota. The CREATE Initiative is a program funded by the University of Minnesota's Grand Challenges Research Initiative to address real world problems that materially impact equitable access to environmental amenities while fostering economic, environmental, and racial justice. The CREATE Initiative advances research and education at the intersection of environment and equity through engagement, interdisciplinary scholarship, and graduate training.

## Our Project Goals

Building off of the work of previous partnerships, including CREATE's collaboration with *Mapping Prejudice* and the work of the 2018 Neighborhood Revitalization project team *Examining Green Gentrification*, we aimed to do the following:

- To explore how these inequities intersect with the built environment of Minneapolis and how they impact residents, particularly disadvantaged communities, in these spaces.
- To create a set of community-facing popular education maps, adaptable and usable for different organizations in Minneapolis and the surrounding metro area, to serve as tools for community members and organizations to tell their own stories of racial and environmental inequities.

*\*Please note that appended to this document is a glossary of terms used throughout the report; these terms are underlined in the text.*

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## Background

The CREATE Initiative grounds its work in the belief that to understand and intervene in contemporary struggles for social and environmental justice, we must understand the systematic and structural forces that produced racially and socially uneven urban landscapes. To this end, in this section we provide an overview of the key **historical policies** that shaped the racially segregated urban landscapes. We also connect the history of segregation to the physical environment by providing a brief review of the history of struggles for **environmental justice**, and how this movement is complicated by **green gentrification**. To understand how we may intervene in the urban landscape to achieve environmental justice and prevent green gentrification, we present an overview of the history of **urban planning**. Finally, to contextualize our popular education maps, we also present literature on theoretical underpinnings of **popular education tools** and **community mapping**.

### How We Got Here

The rampant inequality that exists in American cities is no accident. For over a century, federal, state, and local governments have enacted policies that advanced racial segregation in America (Rothstein, 2017). In the early part of the twentieth century, the federal government created a number of housing programs aimed at increasing home ownership and boosting an economy in the throes of the worst recession the country had ever seen. The Home Owners Loan Corporation (HOLC) was established in 1933 under President Franklin D. Roosevelt to refinance mortgages for millions of families, with longer payment schedules and low down-payments making homeownership more affordable than ever before.

Although HOLC gave out many loans, they were exclusive in who received these loans. The agency devised a comprehensive system for predicting the ability of people to pay back their mortgages in which “every neighborhood of every major American city was coded A, B, C, or D and assigned a corresponding color of green, blue, yellow, or red.” (Moskowitz 2018) Homogeneously white neighborhoods were given an A label and colored green on maps, and an “infiltration of Jews” or any other racial minority automatically barred a

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neighborhood from receiving an A label. Blue neighborhoods were seen as slightly less desirable, and yellow neighborhoods were deemed “definitely on the decline.” Those neighborhoods labeled D and colored red were racially integrated and experiencing poverty. Nearly every “majority-Black neighborhood in the country was given a D label and redlined on the federal government's maps, barred from receiving federal funding for mortgages” (Moskowitz, 2018). Following implementation of this system, it became nearly impossible to receive a mortgage loan if you were Black, as most major banks adopted HOLC’s racist system for loans. In the following decade, the creation of the Federal Housing Administration and expansions to the Veteran’s Affairs program served to reinforce the racial segregation set in motion by the HOLC. The anti-density, racist planning policy developed by these federal programs and agencies almost single-handedly forced the creation of the suburbs and the radical disinvestment of the inner city (Coates, 2014).

Today, we can see a direct link between redlining, disinvestment in cities, and racial and economic segregation that persists in American cities. The National Community Reinvestment Coalition (2018) found that 74% of neighborhoods that HOLC graded as high-risk or ‘hazardous’ are low-to-moderate income today. Additionally, nearly 64% of neighborhoods designated as ‘hazardous’ are neighborhoods where a majority of residents are people of color now. These findings are supported by a study conducted by researchers at the Federal Reserve Bank of Chicago (Aaronson et al., 2019), which found that HOLC maps had a significant and persistent causal effect on the racial composition and housing development of urban neighborhoods. Racial segregation and economic inequality continue to closely follow the maps HOLC created, and the repercussions of this policy are still felt today.

### **Minneapolis-Specific Context**

Minneapolis too is shaped by a history of racial segregation and discriminatory policies, most notably through redlining and racial covenants. Clear patterns exist between the areas in which HOLC restricted investment during the first half of the twentieth century and the areas of concentrated poverty today. In addition to redlining, many properties in Minneapolis contained racial covenants, specific language in housing deeds that outlawed the sale of that house to specific racial and ethnic groups (“Mapping Prejudice,” n.d.). These racially-restrictive deeds have been analyzed and mapped by the Mapping Prejudice

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Project. By mapping the specific properties that contained racial covenants in Minneapolis, Mapping Prejudice gives users the chance to personally examine this history of racism in their particular neighborhood and discover for themselves the impact of this history on the city today. Redlining and racially-restrictive covenants led to lower rates of Black homeownership, the most significant mechanism for wealth building in the U.S., due in large part to incentives such as the mortgage interest tax deduction (Gyourko, Linneman, & Wachter, 1999). Thus, these forms of discrimination not only shaped spatial patterns in the city but also contributed to a racial wealth gap (Coates, 2014). Today, the disparity between Black and white wealth in Minnesota ranks among the worst in the nation (Jones, n.d.).

The city is now nominally implementing steps to address these inequities. Most notably is the 2040 Comprehensive Plan, in which the city lays out a strategy of zoning reform, density, and political strategies to spur the development of more housing. However, critiques of the plan argue that while the loosening of zoning and added density may lead to an increase in housing construction, these units will still not be accessible to low-income residents.

A 2016 report from the Minnesota Housing Partnerships found that sales of apartment properties are accelerating, sales prices of those buildings are rising, and diverse neighborhoods are at risk (Jaramillo & Halbach). These findings highlight the failure of policies that conflate a housing shortage with an affordable housing shortage; simply creating more market-rate housing does little to improve opportunities for the city's most-vulnerable residents.

To spur the development of affordable housing, the city has created an Affordable Housing Task Force and allocated approximately \$18 million in an Affordable Housing Trust Fund to be used to provide gap financing for affordable and mixed-income rental housing production and preservation projects. In particular, this plan gives special preference to projects that include access to transit, contain resident support services, and promote economic integration. Finally, the city has implemented a temporary inclusionary zoning ordinance which among other things, requires "...developers of new rental properties to make 10 percent of their units affordable to households that earn 60% of the area's median income (AMI), or \$56,580 annually for a family of four" (Lee, 2019). However, research conducted in conjunction with the City of Lakes Land Trust (2019) indicates that



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this investment in affordable housing represents only a fraction of the total investment needed to provide long-term affordable housing to all Minneapolis residents, estimated at between \$357.1 and \$859.7 million (Carrier et al., 2019).

## **Environmental Justice and Green Gentrification**

In cities across the U.S., low-income, indigenous, and people of color are disproportionately exposed to the poorest environmental conditions; these groups face higher rates of pollution (Bullard, 2018), have access to fewer natural amenities (Gould & Lewis, 2012; Heynen, Perkins, & Roy, 2006), and are most vulnerable to environmental disasters and risks posed by climate change (R. D. Bullard & Wright, 2009; Douglas et al., 2012; Maantay & Maroko, 2009). This unequal environmental landscape was created through racial segregation and oppression that limited neighborhood options for communities of color while enabling greater mobility and choice for wealthier, whiter residents (i.e., “white privilege,” Pulido, 2000). Moreover, racial bias in siting decisions (Pastor, Sadd, & Hipp, 2001), combined with historic disinvestment in infrastructure (Bullard, 2000; Rothstein, 2017) and uneven enforcement of environmental regulations reflect a pattern of white supremacy (Pulido, 2015) in environmental outcomes.

Grassroots environmental justice activism challenges these disparities, pushing cities to close polluting facilities, remediate former industrial sites, and increase greenspace access (Mohai, Pellow, & Roberts, 2009). This movement was catalyzed nationally in 1982 by Black activists in Warren County, NC, who protested against the dumping of toxic waste in their community, and by the 1987 United Church of Christ Commission for Racial Justice report on toxic waste that demonstrated the disproportionate environmental harm facing communities of color from toxic waste sites (Di Chiro, 1996). This, along with seminal work by Dr. Robert Bullard (2000), called out environmental racism and launched the environmental justice movement across the country.

Environmental justice activism has expanded to include advocating more broadly for healthy and safe environments, including access to food (Reese, 2018), green space (Jennings, Johnson Gaither, & Gragg, 2012), and affordable housing (Foy, 2012). Paradoxically these communities now face a new threat: clean-up and greening efforts can increase housing costs, driving displacement. This phenomenon, known as green

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gentrification (Gould & Lewis, 2016), environmental gentrification (Checker, 2011), or eco-gentrification (Quastel, 2009), is the process through which “greening” increases the desirability and thus the cost of an area, pricing out socially-vulnerable residents (Angelo, 2019).

Green gentrification refers to displacement from a wide range of sustainability initiatives in the urban environment, including the creation of parks, bike lanes, and urban agriculture (Anguelovski, Connolly, Garcia-Lamarca, Cole, & Pearsall, 2018). These initiatives co-opt the language of environmental justice activists to justify the upgrading of neighborhoods and displacement of marginalized communities (Checker, 2011). Increased displacement pressure from urban greening and sustainability initiatives has been demonstrated in both qualitative (Checker, 2011; Harris, Schmalz, Larson, Fernandez, & Griffin, 2019; Parish, 2019; Quastel, 2009) and quantitative work (Anguelovski, Connolly, Masip, & Pearsall, 2018; Immergluck & Balan, 2018; Rigolon & Németh, 2019).

Green gentrification re-entrenches segregated environmental landscapes, limiting the benefits of greening to wealthier, white residents and further marginalizing historically-marginalized communities (Gould & Lewis 2018; Angelo, 2019). Anguelovski et al. (2016) frame green gentrification as a perpetuation of the white supremacy embedded in traditional environmental injustices—while traditional environmental justice concerns opposed the disproportionate siting of environmental harms, green gentrification reflects the same processes of racialization and marginalization that limit options for low-income, indigenous, and people of color to less healthy and less livable neighborhoods.

## **Beyond Centralized Planning**

A reframing of planning policy is necessary in order to understand systemic and structural forces that produce racially and socially uneven urban landscapes, and upend the inequities that have followed. A majority of American planning has been operationalized as an extension of federal, state, and local government rather than as a voice of the community. This centralized, top-down approach has both caused and perpetuated the existing inequality in American cities.

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In order to re-operate planning for the people, we must first contend with the failures of planning in the United States' past and present. Grappling with the legacy of traditional urban planning and its impacts on racial and economic outcomes in American cities may be both difficult and unpopular, but by recognizing the role that planning has played in creating structural inequalities, we are better poised to face these issues in the future (Thomas, 1988). Moreover, by turning our attention to these issues with an increased focus on community engagement, planners and policy-makers can create an avenue for valuable new voices and perspectives to shape future outcomes.

There must be more than a recognition of grievances, however. A shift in approach and theoretical underpinnings of American planning is necessary to enact meaningful change. Centralized and rational approaches to planning are the foundation for American planning today, but need to be revamped in order to be effective for communities that feel planning decisions in their everyday lives. One way to remedy the shortcomings of rational and comprehensive planning is through consensus building. Through informed and in-depth discussions with stakeholders, consensual decisions can be made with shared benefits. Innes (1996) argues that the strategy and scope of consensus building is not simple and must ultimately be done at the local level.

Davidoff's (2001) solution to addressing the problems with the current operation of planning is to introduce pluralism and advocacy to planning. In his eyes, having multiple perspectives is the only way to enact effective planning, as contemporary urban issues are inherently social, economic, and political. Not only are these issues inherently subjective, Davidoff argues that planning should be subjective. He believes that professional planners should serve the interests of different groups that align with their own views and beliefs. In an ideal situation for Davidoff, both local political parties would have comprehensive plans and a staff of professional planners, with methods of planning either more conservative or more progressive based on their association with the respective parties. Having these competing views is good for the democratic process and makes planning more accurately reflect the needs and wants of the people it is meant to serve.

A system of pluralism and advocacy in planning would lead to better informed decisions by planning officials as well as a more informed public, both of which lead to a more democratic and representative city. Minneapolis has a history of discounting and shutting

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out the voices that have been historically disadvantaged, and advocacy planning is an important step (although more steps need to be taken) in including these voices in planning decisions. Doing so can help to make more democratic decisions for planning that better serves the community as a whole.

Through our partnership with CREATE, we sought to bring the experiences of stakeholders and community members to the forefront. Our work this semester with the South Minneapolis Public Safety Coalition, Parks and Power, and the Southside Green Zone was one step towards bringing more voices and experiences into consideration, as we hope these maps may be utilized and considered by both planners and policy makers.

## **Popular Education**

The first goal of this project is to create community-facing tools that fit into a popular education framework. To do so effectively, it is important to both define popular education and review successful practices. Popular education as a concept emerged across several different places and cultures, and was used as early as 1789 during the French Revolution. Contemporary popular education practice in the United States, however, is rooted in the work of Latin American scholars from the mid-20th century. Brazilian educator Paulo Friere defined popular education as “the effort of mobilizing and organizing the popular classes with the goal of creating a popular power” (Torres, 1992). Friere, a Marxist, believed that education should be actionable, and should operate as an investigation to generate new knowledge co-led by teacher and student. In the context of his work, popular education is specifically a method for empowering oppressed groups, raising class consciousness, and ultimately organizing a revolution (Friere, 1968).

Friere’s framework has been adopted in the United States, most notably during the Civil Rights Movement by the Tennessee Highlander Folk School. In the context of urban planning and spatial justice, few pure implementations of popular education practices exist. In Charlotte, North Carolina, popular education was used in an attempt to “raise critical consciousness of structural inequality as a starting point for ultimately transforming...systems of oppression” (Bengle & Sorensen, 2017). The researchers were motivated to use popular education tools because they felt that previous planning paradigms have fallen short in organizing communities and raising awareness of systems

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of oppression. In response, they proposed a paradigm of “empowerment planning,” in which popular education tools were used as a starting point for learning the paradigm. During the study, a group of diverse community members participated in a two-day workshop where they created conceptual maps detailing their experience of living in the neighborhood, and identified problems in the neighborhood and how they related to each other. This approach was notable for its adherence to principles of popular education. Specifically, the planning process was a community-led investigation into neighborhood issues and how they relate to structural inequality. Crucially, the community members were given control over the narrative of their neighborhood in the planning process. The importance of narrative is echoed by public health and popular education scholar Noelle Wiggins, who gives three major recommendations for popular education implementations (Wiggins, 2012):

1. Popular education tools should be sensitive to social, political, and economic context
2. Implementations should plan for a long period of time, allowing participants to move towards empowerment
3. Popular education should redistribute power from the privileged to the oppressed

To account for these recommendations in the implementation of this project, maps that show environmental (in)justice and green gentrification should be constructed in a way that allow those affected to introduce their own narrative. Further, mapping efforts should directly call power structures into question and facilitate empowerment through the practices of community and counter-mapping. We strived to use these guiding principles in our mapping work this semester.

## **Community Mapping**

Maps display the spatial and lived realities that we experience every day. They delineate boundaries, depict relationships between both physical and non-physical matters, and otherwise represent basic information on what we know about the world around us. Maps convey particular narratives which enable us to make decisions from the individual-level to the national-level. As such, maps are both a product of and a vehicle for power--and so mapping is an inherently political act (Peluso, 1995).

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Historically, maps have been a tool used primarily by the affluent and powerful (Parker, 2006; Peluso, 1995). Cartography and mapping generally requires extensive knowledge and training. While technology has improved the accessibility of mapping software in recent years (Tulloch, 2007), time, know-how, and financial resources are still constraints for mapping projects. As a result, only those with access to these resources have traditionally been able to produce maps, which in turn are used to inform planning and political decisions. Thus, many community members' lived experiences--especially those of marginalized and oppressed communities--are not typically captured by maps and in this way mapping has largely ignored community narratives. Moreover, while we are often taught to see maps as static, complete, and true representations of the world, in reality, maps are "interpretations based not just on what people see and experience, but what they believe about these experiences" (Pacheco & Velez, 2009). Consequently, maps have the capacity to both reproduce oppressive systems and beliefs (Pacheco & Velez, 2009), and mobilize and consolidate power (Peluso, 1995).

In response to the legacy of elitist mapping practices around the world which limit input from marginalized community members, counter- and community mapping has grown increasingly popular in recent years (Henry-Nickie, Kurban, Green, & Phoenix, 2008; Parker, 2006; Peluso, 1995). While counter-mapping focuses primarily on indigenous communities and their claims to resources not recognized by the state through its mapping institutions (Peluso, 1995), community mapping more broadly refers to the process of mapping a particular locale, "often featuring local knowledge and resources" (Parker, 2006). Community mapping is a practice that can advance social change, as it provides an opportunity for "local community groups to operationalize their own values with respect to important topics that touch their lives" that may not be otherwise recognized or considered by state entities (Henry-Nickie, Kurban, Green, & Phoenix, 2008). By co-opting the technology of mapping used by the state, counter- and community mapping may "help to counterbalance or at least offset the previous monopoly of authoritative resources by the state or capital" (Peluso, 1995). In this respect, counter- and community mapping aims to redistribute the power of agenda-setting and narrative-building through spatial visualization.

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Although community mapping is meant to give voice to local participants by highlighting their experiences and narratives through a collaborative process, it is important to note that such mapping practices are still typically situated within “the system” rather than working from outside it. Social and political changes may not be driven by maps alone, but rather, mapping might be used to facilitate this process if they are used with a purposeful effort (Radil & Anderson, 2019). Additionally, mapping work that forges a space where broader organizations can connect and generate narratives around existing inequities can be more effective at challenging the status-quo than simply creating maps that merely work within and reinforce current hegemonic conditions. (Radil & Anderson, 2019).

While the maps we co-created for this popular education tool were community-driven in part, there is a greater opportunity to connect more deeply with community members on building narratives to be represented in future mapping work. Conflicting visions and aspirations over urban planning and policy are inevitable, but developing a process through which community members may be engaged in agenda-setting and narrative-building is invaluable in assuring that marginalized citizens are kept on the map, rather than off it.

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## Stakeholder Engagement Process

Our group worked with the CREATE team to identify community organizations that could utilize popular education tools to aid their work. Eventually, the three organizations that we worked with were: the [South Minneapolis Public Safety Coalition](#) (SMPSC), a collaborative of neighborhood organizations that works to “...improve public safety by bringing together community voices for change,” along with collecting and considering “community concerns and ideas about how to improve livability and safety with a restorative lens”; [The Southside Green Zone](#), a City of Minneapolis initiative aimed at “improving health and supporting economic development using environmentally conscious efforts in communities that face the cumulative effects of environmental pollution, as well as social, political and economic vulnerability”; and [Parks and Power](#), an advocacy group dedicated to organizing for Racial Justice in Minneapolis Parks while concurrently organizing around affordable housing, homelessness, and displacement.

These partners were incredibly helpful in establishing what information would be most useful in developing this popular education tool, and how that information could be used to support their ongoing work. Specifically, we heard that the most important things we can create are visuals that:

- Help residents better understand the history of inequity in Minneapolis.
- Show how those historical inequities have led to issues the city faces today, specifically around issues such as housing affordability and environmental disparities.
- Allow people to see how the history of their specific neighborhood and match that with their personal experiences around affordability and public investment.

These conversations were the foundation for the creation of the popular education maps, with a specific focus on creating products that were both educational and accessible.



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## **Deliverable: Popular Education Maps**

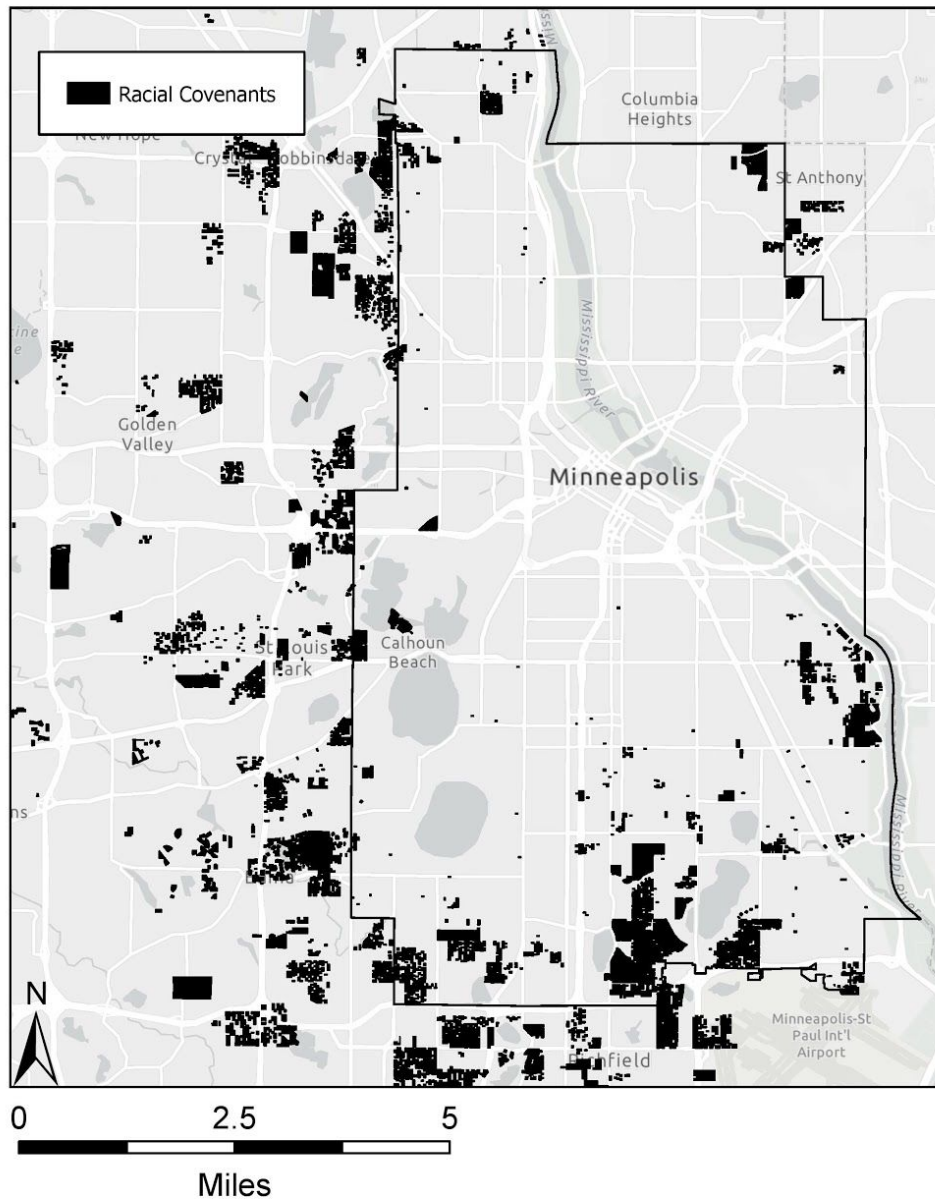
Based on our engagement with stakeholders, we compiled a collection of historical, environmental quality, and housing maps. These topics were chosen based on the themes that emerged during our conversations with the aforementioned stakeholders. In particular, these groups were interested in having maps that showed how histories of racial discrimination shaped the landscape of social and environmental of Minneapolis. Groups viewed these maps not as telling them something that they did not already know, but as tools for legitimizing their stories and demonstrating the lasting impact of racially-discriminatory policies. Additionally, because activist groups across a range of issues connect their work to housing justice, we included maps showing the rising cost of housing in Minneapolis, the burden this places on communities, and the mismatch between affordable housing policies and the reality of housing unaffordability. The maps we assembled are intended as “base maps” that could be further combined, depending on the context of the installation.

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## Historical Maps

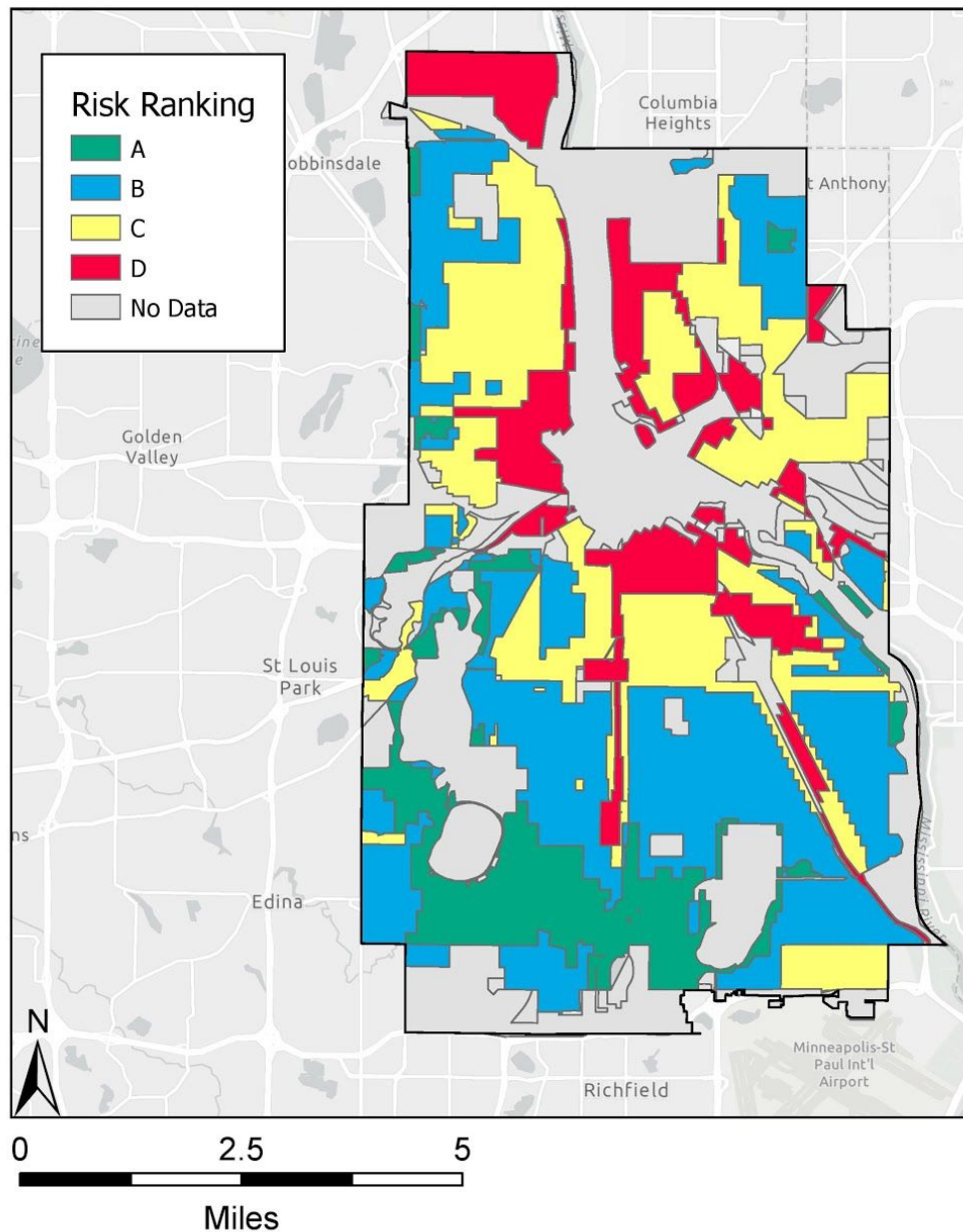
### Racial Covenants

This map shows the racially-restrictive covenants within the City of Minneapolis and in its immediate surroundings, indicated by the black colored parcels. Racial covenants prevented people of color from buying or occupying property. While only legal from 1911-1948, covenants continued to be written into deeds until 1955 and were unofficially unforced through the 1960s.



## Redlining (HOLC) Mortgage Risk Map

This map shows the Home Owners' Loan Corporation "redlined" map of Minneapolis from 1938. Green areas represented the most desirable, and thus "safest" areas in which to award a loan, while properties in yellow and red areas were deemed "risky" and thus unlikely to be given loan assistance.

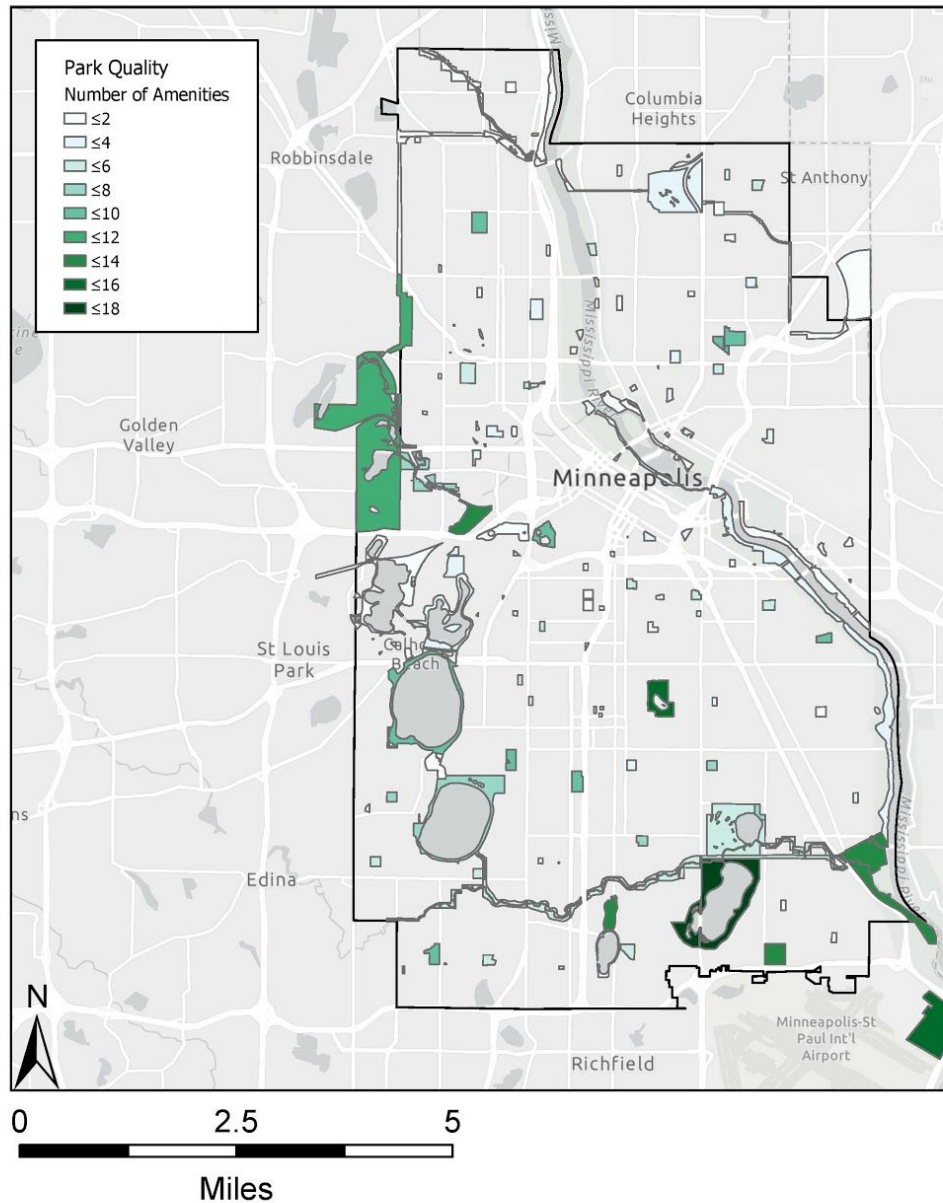


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## Environmental Quality Maps

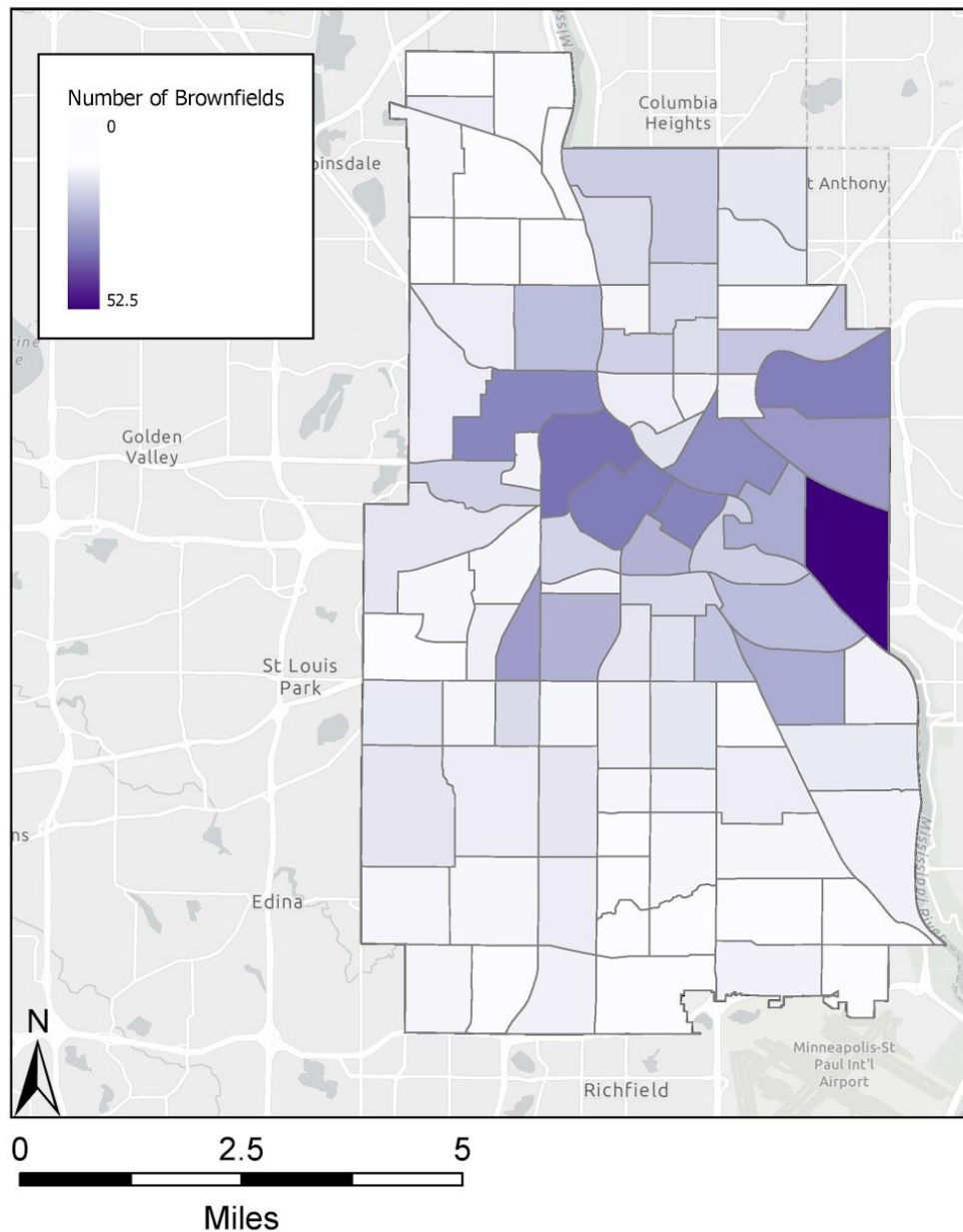
### Park Quality

This map shows the quality of city parks in Minneapolis. Parks with more amenities (such as water fountains, benches, and playgrounds) are shown in darker green while those with fewer amenities are lighter green or white. Data for park quality indices were collected from the Metropolitan Council.



## Toxic Sites

This map shows the number of “brownfield” sites by neighborhood. Brownfields are EPA-designated sites in which hazardous substances, pollutants, or chemicals are present or potentially present. Light-colored areas have few or no brownfields, while darker purple areas have numerous brownfield sites.

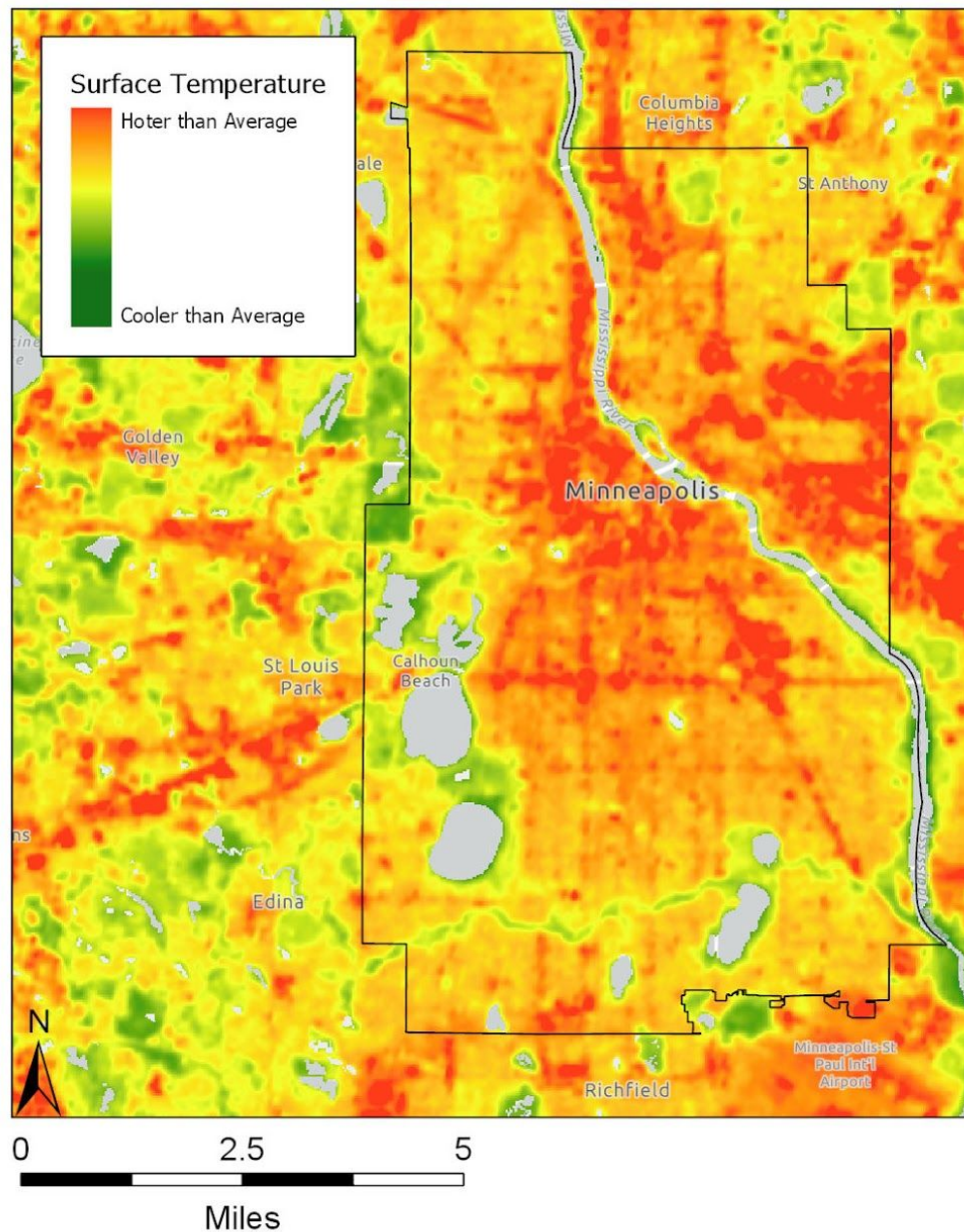




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## Urban Heat Island

This map shows average surface temperature for the city of Minneapolis, with red areas having on average warmer temperatures and green areas having on average cooler temperatures. Surface temperature is influenced by the land cover in an area, with trees and grassy areas having a cooling effect and buildings and pavement having a warming effect.

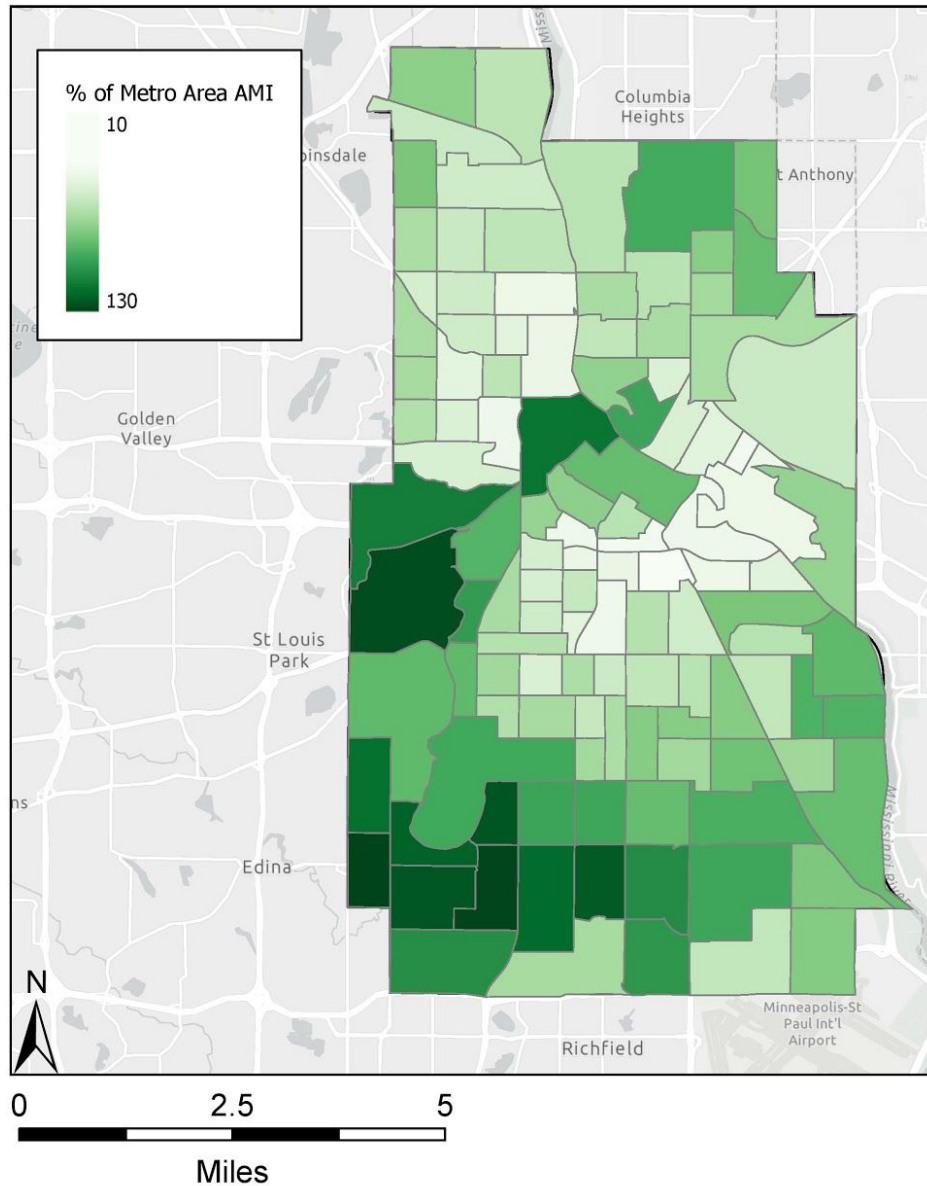


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## Housing Affordability Maps

### Area Median Income

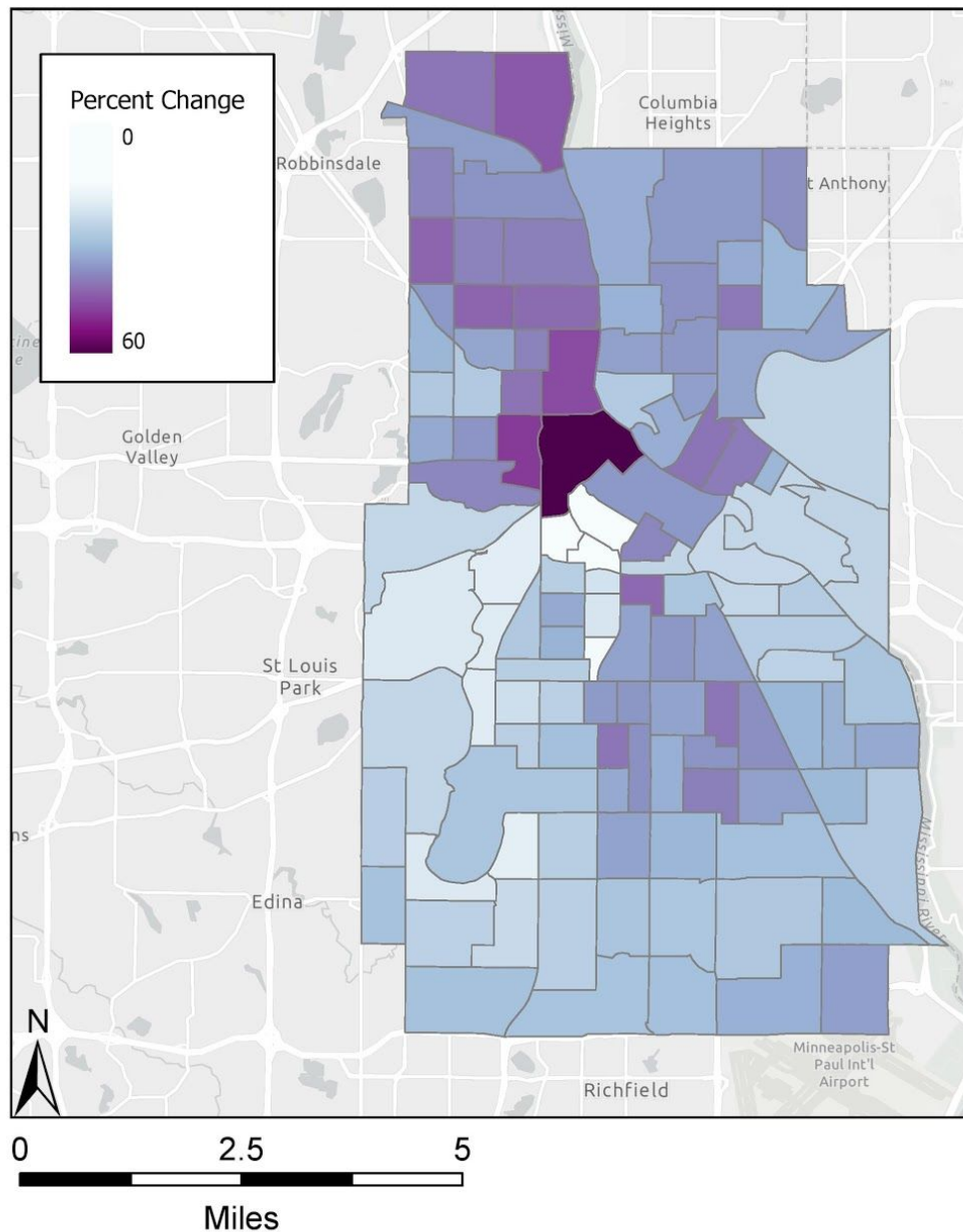
This map shows the difference between the neighborhood Area Median Income (AMI) and the Metro Area AMI, such that neighborhoods with a higher AMI than the Metro Area median are dark green, and neighborhoods with a lower AMI than the Metro Area median are light green and white. This data is sourced from the U.S. Census.



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## Change in Residential Property Value

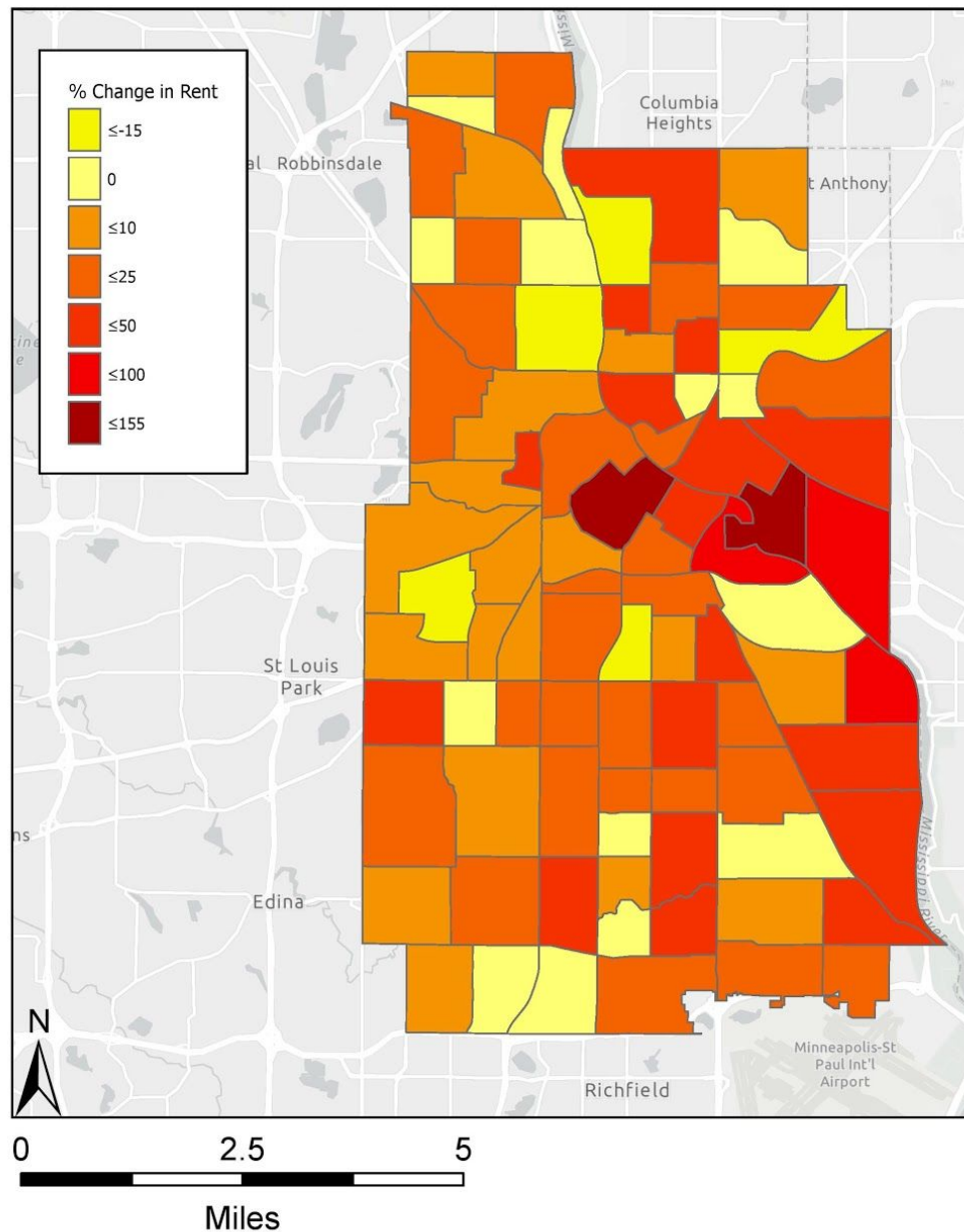
This map displays the percent change of residential property values at the neighborhood level from 2015-2018, where little change in property value is white or light gray, and higher changes in property value is shown in blue and purple. This data is from the Hennepin County Tax Assessor's Office.





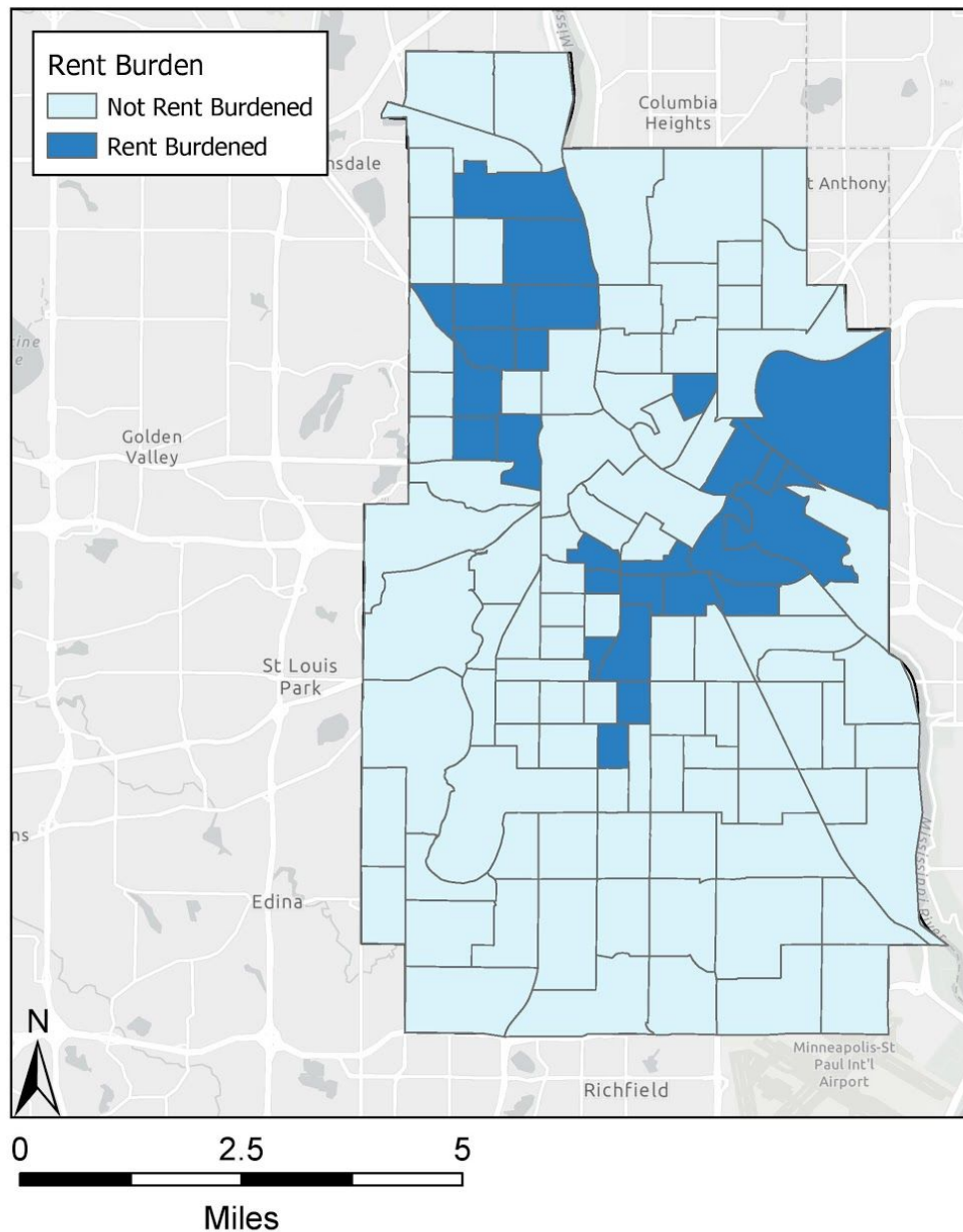
## Change in Rent

This map shows the percent change of the cost of rent at the neighborhood level from 2015 to 2018, where average increases in rent are orange and red and decreases or stability in rent are yellow. This data was collected by scraping the internet for online rental listings and averaging them for each neighborhood. This data is incomplete, as there is no complete dataset of all rental costs in each neighborhood in the city.



## Rent Burden

This map shows which neighborhoods are rent burdened, where dark blue areas are burdened and light blue are not. Rent burdened areas are those in which, on average, households must spend more than 30% of the median AMI of the neighborhood on rental costs. This data is sourced from the U.S. Census.

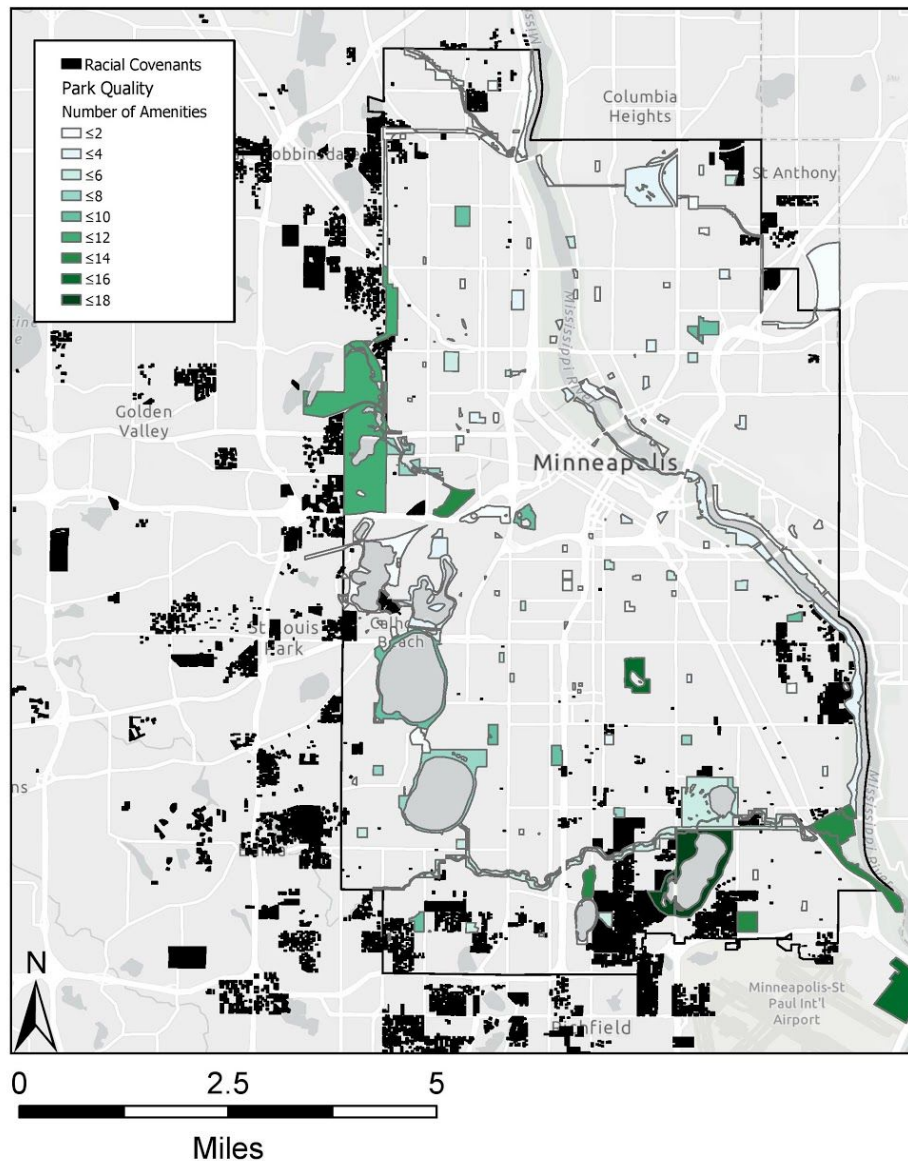


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## Example Map Overlays

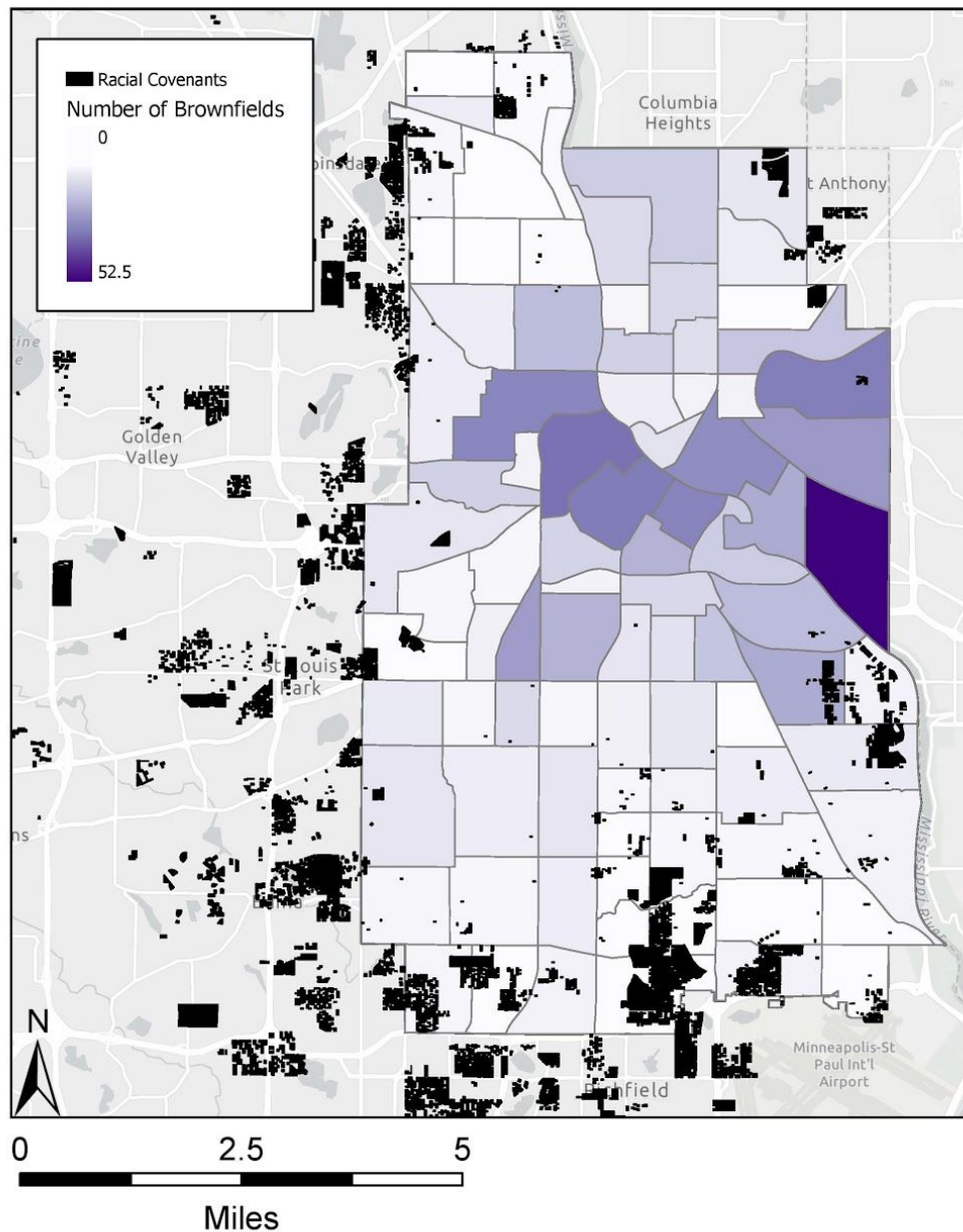
### Racial Covenants and Park Quality

This map shows the legacy of racially-restrictive covenants on park quality. Racial covenant data is overlaid with the number of amenities at parks (such as water fountains, benches, and playgrounds), where parks with more amenities are shown in darker green. Data for park quality indices were collected from the Metropolitan Council.



## Racial Covenants and Toxic Sites

This map shows historical racial covenants overlaid with the density of current Brownfield sites in each neighborhood in the city. Brownfields are EPA-designated sites in which hazardous substances, pollutants, or chemicals are present or potentially present.





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## Feedback from Stakeholder Community Groups

After the initial collection of maps was assembled, we shared these maps with our stakeholder community groups for feedback. In particular, community groups resonated with the historic maps, finding it helpful to tie present conditions in their neighborhoods to the legacies of covenants and redlining. They appreciated overlays of historic maps and environmental data and expressed interest in the historic maps overlaid with other variables, such as policing, health, and education outcomes.

Having neighborhood specific data on area median income and how this compares to metro-wide averages was helpful to all groups. They also appreciated the maps showing the change in property values and wished there was data of comparable quality showing the change in rent. Unfortunately, the data available to us from the CURA webscraping tool provides an incomplete picture of the rent prices, missing increases in rent without a change in tenancy and listings that were never posted on digital platforms. Additionally, these estimates are biased by new developments in which one or two new buildings constitute the majority of listings for a neighborhood. Identifying potential statistical techniques to account these biases in the data could potentially improve the usefulness of this data. The lack of city-wide data on rent prices limits the ability of renters to organize in advocating for their rights while giving property owners and developers greater leverage.

Stakeholder groups expressed an interest in pairing these maps with qualitative data, particularly from interview quotes. These could be paired with maps at the neighborhood-specific scale. Participatory mapping of neighborhood change could provide greater insight into how displacement pressures are experienced (Antunes, March, & Connolly, 2020).

Finally, some stakeholders expressed concern that the maps tell a story of deficits in some neighborhoods and abundance in others. They felt that this deficit-focus tells only part of the story, failing to capture the numerous assets within communities that residents have self-organized to provide. These include gardens, public art, shelters and pantries, community gathering spaces, and cultural corridors. The history of discrimination and oppression must be told in tandem with stories of strength, resistance, and resilience.

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## Limitations

While this collection of maps serves as an initial attempt at establishing a collection of popular education, public-facing maps, these maps come with limitations. Some data sources used in the maps are incomplete or averaged at the census tract or neighborhood scale. Furthermore, the maps represent a snapshot in time; they are static products which are only representative of one subset of data. In particular, the lack of a complete rental price dataset due to the limitations of the webscraping tool limits the ability of our maps to capture the full picture of housing affordability. This gap limits the ability of tenants to organize and advocate for greater protections.

Additionally, our data are inherently political. The data used to produce these maps came primarily from state institutions, such as the Minnesota Geospatial Commons and the United States Census. The methods of data collection, aggregation, and presentation, the questions asked, and the assumptions of the data sources are fundamentally shaped by the institutions doing this work. While not political in the sense that it has a political party affiliation, our data is political in that it was collected with a specific set of geospatial assumptions by and for political institutions.

Finally, while we engaged with stakeholder community organizations, we did not engage directly with broader communities, limiting our perspective on how these maps might be utilized. Feedback from a less institutionalized set of stakeholders would have provided additional insight into how these maps are understood and could be utilized. This step would be particularly important for designing a public installation.

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## Future Work

There are always more stories to tell, and thus, more maps to create. Future work for CREATE and stakeholder groups may include identifying additional narratives and community-goals that mapping may help convey and advance. These narratives might be community-driven, where the process of community mapping can engage local residents more directly in agenda setting. Alternatively, these maps and others could help advance the organizational interests of other stakeholder groups in addition to those we collaborated with. Specific data that our stakeholder groups expressed interest in seeing mapped include policing, education (school quality, educational attainment), and health outcomes. There was also a request for more detailed maps with neighborhood-specific information, which could provide additional context on future maps.

In addition to creating more maps, CREATE and stakeholder groups may want to expand their focus to include not only *where* people live, but *how* people live. Suggestions from community groups about the format these maps could take include online tools, a physical map library that could be checked out for use, or permanent installations in public spaces. Additionally, this could take the form of interactive maps and map based activities that allow viewers to actively engage in the learning and storytelling process. Examples of this include Mapping Prejudice's work in which community members helped build the map and share their stories. Future work could also include participatory mapping, in which community members are given the opportunity to create their own data, shaping the narrative from the data collection and map creation processes.

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## Conclusion

As Vajjhala points out, “Individuals’ connections with their physical surroundings are the product of their unique priorities, perceptions, preferences, and potentials...populations are not homogenous, and *where* people live only forms a starting point for *how and why* they live there” (2015). By combining visual representations of physical space with lived realities, maps can be further mobilized around communities’ needs and goals as they relate to their everyday experiences. In other words, the work produced for this report is only one piece of a larger project. By mapping measures of environmental quality and housing affordability we are able to better understand some aspects of injustice in broad strokes, but unable to understand the full reality for those most affected. To complete the narrative, we hope these maps and practices will find their way into other hands.



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## Glossary of Terms

**Advocacy Planning** - Advocacy planning is a theoretical method of urban planning in which planners engage in contentious, political determination as advocates for a particular point of view. Under this model, planners should acknowledge and champion the set of values which they hold.

**Affordable Housing Trust Fund** - a city of Minneapolis program that provides gap financing for affordable and mixed-income rental housing, housing production and preservation projects. The purpose of this program is to finance the production and preservation/stabilization of affordable and mixed-income rental housing projects in Minneapolis.

**Centralized Planning** - Centralized planning is a top-down approach to urban planning, in which planners operate as an extension of some central power or institution, making decisions for the people they serve based on what they believe to be their own expertise of the issues.

**Community Mapping** - the process of producing a map collaboratively of a particular locale by residents rather than by the state. Community maps may use local knowledge and resources, and may be created to drive social or political change or the redistribution of resources (Parker, 2006).

**Counter Mapping** - mapping efforts pursued to challenge state authority by producing alternative, “counter-maps” which allow local people to “control representations of themselves and their claims to resources” (Peluso, 1995). This term typically applies to indigenous practices for reinserting indigenous communities and livelihoods on the map.

**Environmental Justice** - a movement working to counter the harm of environmental racism, in which low-income, indigenous, and people of color face disproportionate environmental harm and lack of access to environmental amenities. Prioritizing procedural justice (i.e., just decision-making in which all members of a community have equal voice) as a method, this movement works for both distributional justice, in the form of just siting of hazards and benefits.

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**Green Gentrification** - the process through which urban sustainability initiatives, such as parks, bike lanes, and urban agriculture, co-opt the language of environmental justice to in the upgrading of neighborhoods, increasing the desirability and the cost of an area, pricing out socially-vulnerable residents.

**Inclusionary Zoning** - a policy that requires new multifamily developments of a certain size to keep a certain percentage of units affordable at a mandated area median income. Requirements and restrictions vary by policy.

**Pluralism** - Pluralism is a political philosophy in which people of different beliefs coexist in society and participate equally in the political process. Furthermore, it assumes that it will lead to the outcome that achieves the greatest 'common good' through a more democratic process.

**Popular Education** - "The effort of mobilizing and organizing the popular classes with the goal of creating a popular power" (Friere, 1968).

**Racial Covenants** - "Racial covenants were tools used by real estate developers in the 19th and 20th century to prevent people of color from buying or occupying property. Often just a few lines of text, these covenants were inserted into warranty deeds across the country." ([Mapping Prejudice](#))

**Rational Planning Model** - The rational planning model is a template for decision making employed by many practicing planners, with utility maximization as the guiding principle. The six steps of the rational planning model are: define the goal(s); brainstorm alternatives that could achieve the goal(s); consider the consequences of each alternative; make a decision informed by the consequences weighed; implement the decided upon strategy; and lastly evaluate the success of the policy.

**Redlining** - The systemic process in which banks and governmental institutions deny mortgages or loans to residents in certain neighborhoods based on their racial and ethnic composition.

**Spatial Justice** - "Geographies or distributional patterns that are in themselves just/unjust and ... the processes that produce these outcomes" (Soja, 2009).

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**White Privilege** - the benefits conferred to white people by virtue of their whiteness. This is a form of racism that relies less on racial animism and more on structural, historicized racial processes (Pulido, 2000).

**White Supremacy** - attitude and actions enacting and reinforcing a conception that white people are entitled to more than non-white people predicated on a belief that white people are more deserving or 'better' than other groups (Pulido, 2015).