# Disparities in Urban Green Space Access for Low Socioeconomic Communities in the United States

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**URBAN GREENSPACE** 

## **DEFINITION OF GREENSPACE:**

An open (outdoor) space of land that is undeveloped, accessible to the public, and provides a close connection with plant life. Green spaces encompass outdoor recreational areas such as parks, greenways, hiking trails, natural conservation lands, and even small continuous pockets of greenery along streets such as those used to provide urban tree canopies.

## **BENEFITS OF GREENSPACE**

SOCIAL



#### MENTAL WELLBEING

Several studies have connected exposure to outdoor green spaces with greater feelings of enjoyment, energy, mood restoration, and self-esteem.



### PHYSICAL HEALTH

Living in green areas or in walking distance of green spaces is associated with lower levels of mortality and morbidity, including lower rates of heart disease, stroke, obesity, stress, and depression



## SOCIAL COHESION & REDUCED ISOLATION

Increased green space area results in a better sense of community belonging, which also contributes to better mental health.



EVENTS Green spaces offer public spaces where communities may interact and hold cultural, religious, and sporting events.

SPACE FOR COMMUNITY



#### BOOST LOCAL COMMERCE

Intentionally designed green streets or greenways have to the potential to act as hubs for local small businesses and community events that can draw in residents and foster social interactions, as well promote spending at local restaurants and stores.

#### LOWER ENERGY COST

Green spaces such as green roofs and expansive urban tree canopies help lower energy costs by allowing plant life to absorb heart waves and reduce energy loss from buildings. Energy bills are lowered as a result.



#### ECONOMY



#### AIR POLLUTION

Increased green space area results in a reduction of air pollutants, leading to cleaner air and decreased negative health outcomes associated with air pollution, such as respiratory and cardiovascular diseases and cancers.



#### URBAN HEAT ISLAND Increased green space area results in a reduction in the negative impacts

caused by the urban heat island effect (such as heat-related deaths and illnesses).





The implementation of native plants and animals to green spaces allows for such species to thrive and offer natural benefits to the landscape such as restoring the natural habitat



#### STORMWATER RUNOFF REDUCTION

Green spaces are a cost-effective solution to stormwater management; they can mimic natural hydrological processes by using natural elements like soil and plants as permeable surfaces that can capture, absorb, and filter stormwater before it contaminates other water supplies.

#### REDUCES PRESSURE ON URBAN WATER COLLECTION/RETENTION SYSTEM

The reduction in stormwater runoff can save cities millions of dollars by serving as natural water catchment zones that require less maintenance than expensive water retention systems. Green spaces also reduce the severity of and damages caused by stormwater flooding events

**ENVIRONMENT** 

## **HISTORICAL ROOTS**

Pre-Great Depression



## **ICEBERG MODEL**

## **Events**

The unequal distribution of greenspace between neighborhoods

Unequal percentage of black homeownership and white homeownership

## Trends

Urban Tree Canopy is decreasing with the development of the cities Wealthier neighborhoods enjoy more greenspace than poorer neighborhoods

## Structure

The inequity of US housing laws in the past and present

Lack of cooperation and communication between Federal, District, and Private sectors

## **Mental Model**

Structural racism

Prioritization of economy vs. environment

#### **Private vs. Public Motivations**

When private developers have access to land, they have little incentive to invest in building green space because green space does not return high profit margins. However, publicly funding urban green space is more difficult when local governments have smaller pools of taxpayer money to tap into.

#### **Gaps in Communication**

Lack of communication and cooperation among key stakeholders has led to many "side effects" of poorly planned and implemented green spaces, including gentrification, community dissatisfaction, poor maintenance, and increased potential for crime and violence.

#### **Green Gentrification**

Large scale green initiatives that are placed in historically disenfranchised communities can over time displace vulnerable residents and draw in wealthier residents to these newly developed areas.

## **SOLUTIONS LANDSCAPE**



## **STAKEHOLDERS IN AN IDEAL SOLUTIONS LANDSCAPE**



## **GAPS AND LEVERS**

GAPS	LEVERS
Difficulties in influencing politicians to develop/retain interest towards this issue	A bottom up solutions approach, starting with education of youth education to raising general awareness of green space benefits
City Parks and Recreation office working with non-profits to provide more accessible and quality green spaces	Governing bodies must have initiatives for outreach to non-profits and community groups so that ideas from the marginalized and unheard community members can be co- opted into policy
Community involvement in the process of planning and management of local environmental needs is lacking and can help with more accessible and equitable green spaces	Allowing for community initiatives to lead local environmental management policy
Green spaces that have high activity and are regularly at or over capacity will need more resources to prevent and repair damages to maintain quality and security	When planning the functionality of the green space, if there is high demand pressure, the scope of green space amenities must be narrowed and prioritized to best accommodate this demand
Green gentrification is an emergent area of research. Measurability on the contribution of green spaces to gentrification as a whole is complex	Research into the implementation of green projects that have managed to achieve equitable outcomes as well as those that have not is needed
Lack of communication between affordable housing/anti-displacement advocacy groups and park advocates results in green gentrification	Greater cooperation between these stakeholders and education around the institutions and systemic forces (housing systems and regulatory systems) that drive green gentrification