

# The Green I Have and The Green I Get



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## Abstract

Community woodlands, green roofs, street trees, parks and gardens all make up what are known as green spaces. This study sought to explore whether there is a correlation between socioeconomic status and the availability of green spaces in New York City. Subway maps of the city and census data were analyzed to compare the income of residents in certain areas and the number of parks and other green spaces in those areas. Neighborhoods with higher incomes such as the Upper East and West sides have access to large green spaces, while areas like Jackson Heights lack immediate access to them. The results of this study have important implications for society. Having access to nature is known to be vital for mental health, as well as physical health, which is possibly one reason why, for instance, the Covid death rates were much higher in these areas.

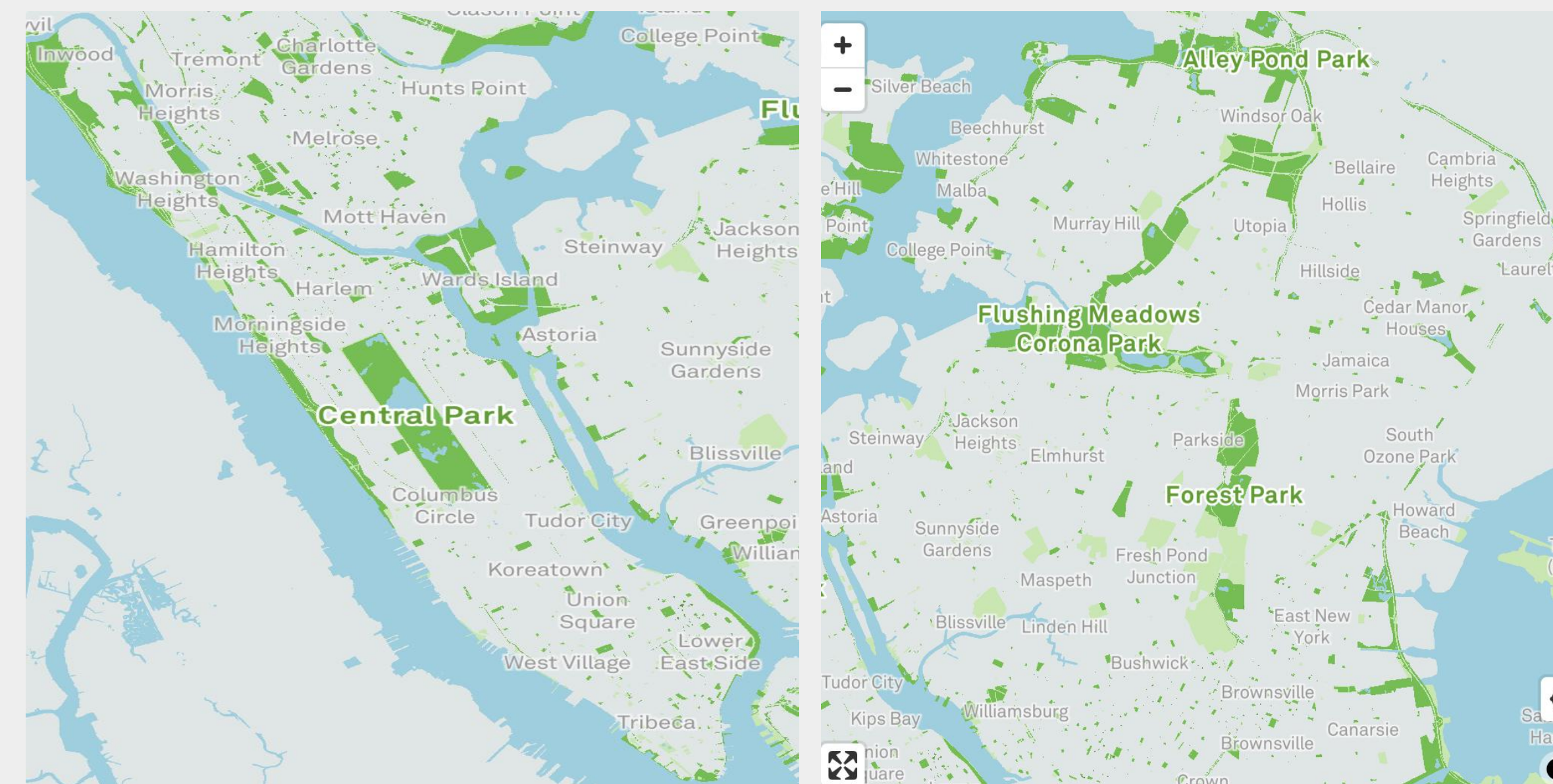
## Research Question

Is there a correlation between socioeconomic status and the availability of green spaces in NYC?

## Methods

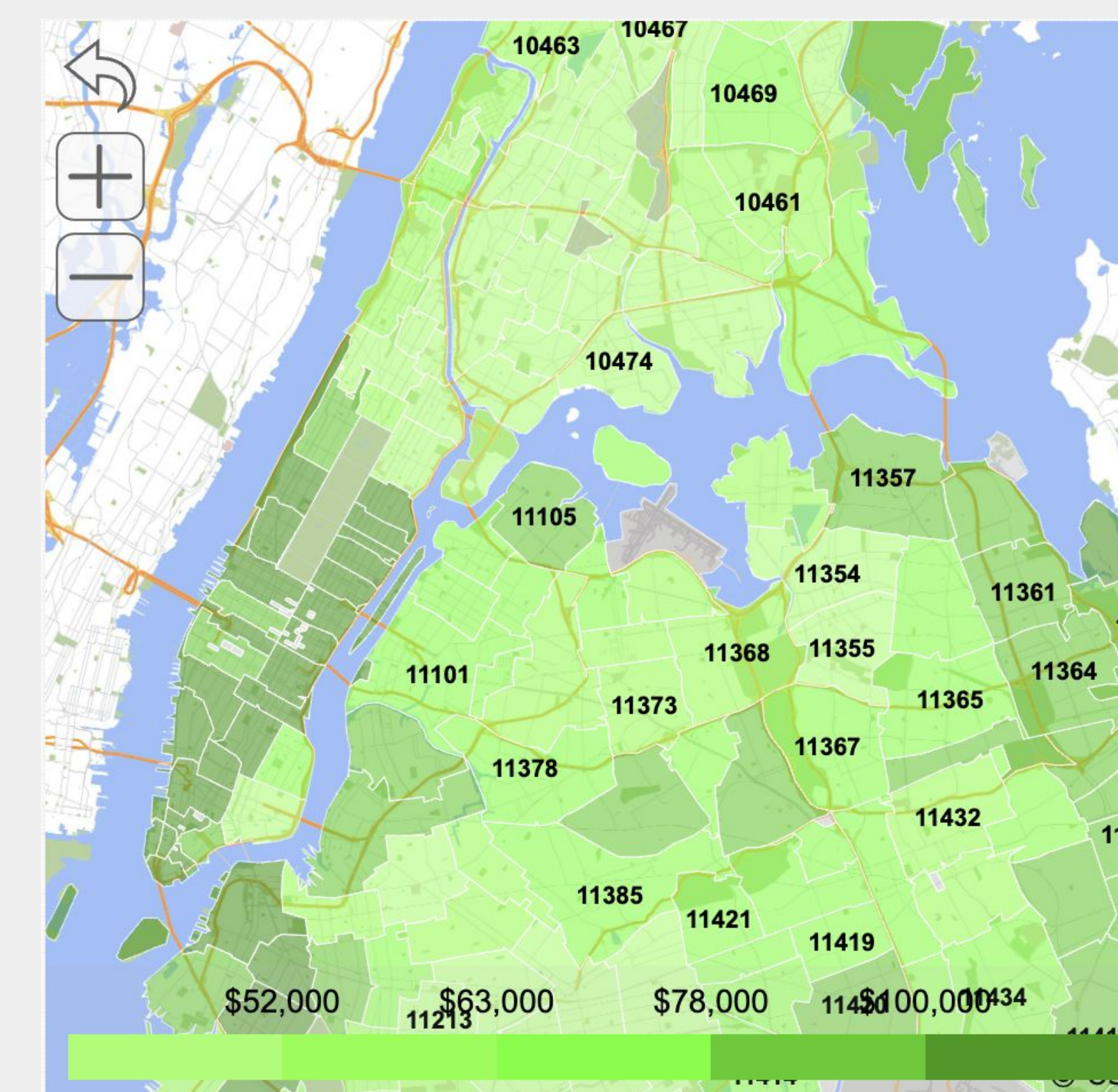
For this analysis, we've opted to compare green areas accessible to the public using data from NYC Department of Parks and Recreation along with census data demonstrating household income.

## Results and Findings



This map highlights where the parks are in the city. (Note some of the tiny spots are literal plots of land) I specifically chose to compare Manhattan with Brooklyn and Queens because the neighborhoods are very different. As you can see, more wealthy areas like the upper East and West side have access to central park whereas areas like Jackson Heights don't have access to any open greenery within a ten minute walk.

*Disclaimer: playgrounds with no open greenery are excluded from this analysis.*



Income distribution in Manhattan and Queens.

## Analysis

There are currently 16,000 acres of neighborhood parks throughout the five boroughs; however, they are not distributed equally. Findings demonstrate that often one's income status plays a role in their access to high-quality green spaces. According to the maps demonstrating how Parks are distributed, notice how small such green spaces are and their distribution. Jackson Heights, for example, has as little as two square feet of park space per resident. The nearest large park to that neighborhood would be Flushing Meadows Corona Park, which is about 2.9 Miles away from the Jackson Heights 82nd Street Subway Station on the 7 Line. However, the need to rely on public transportation imposes more of a financial burden on the people living in these low-income communities.

Furthermore, the green spaces that are readily available aren't properly maintained or don't serve their purpose of hosting large crowds. In low-income neighborhoods, where people often live in crowded situations, the structures of available green spaces are a disservice as they don't share the same amenities of large parks such as running tracks, athletic fields, and more importantly, natural areas like woodlands. Despite how interconnected New York City is, the distribution of Green Spaces and their accessibility based on income demonstrates how economic segregation still upholds many injustices the city continues to face.

## Conclusions

This research illuminates the connection between socioeconomic status and green space accessibility in New York City, revealing stark inequalities across neighborhoods. Affluent areas, notably the Upper East and West sides, enjoy ample greenery, while lower-income districts, particularly in The Bronx and Brooklyn, face significant deficits. Beyond geographic disparities, the study highlights the profound impact on mental and physical health. Inadequate maintenance of available green spaces in low-income areas exacerbates challenges, failing to provide essential amenities for community well-being. The study emphasizes the burden on residents, who must rely on public transportation to access larger parks, imposing financial strains on economically disadvantaged communities. The findings highlight the pressing need for policies promoting equitable green space distribution, addressing disparities, and fostering a healthier, more resilient urban society while challenging systemic injustices entrenched in New York City's landscape.

## Future Research

In terms of future research, we can use this data as well as new data to see if there is a correlation between the availability of green spaces and gentrification, which is the demographic shift of wealthy/middle class into neighborhoods and lower/working class people out of them. Another possible research study is exploring how green spaces affected Covid-19 death rates in certain areas.

## Work Cited

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